

REPORT
OF
THE FACT FINDING COMMITTEE ON REGIONAL IMBALANCE

GOVERNMENT OF MAHARASHTRA

PLANNING DEPARTMENT

BOMBAY

APRIL 1984.

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CHAPTER-I

INTRODUCTION

1.1. The decision of the Government to appoint our Committee was announced in both the Houses of the State Legislature on July 29, 1983. The necessary orders were issued by G.R.P.D. No. RDV-1082/CR-38/PRG-14 dated August 3, 1983.

1.2. The preamble to the Government Resolution reads as follows: There is a feeling among the people that the development of the different regions of the State has not occurred in a balanced manner and there is a demand voiced in the State Legislature and other media that this should be achieved. The Government is aware of the problem and, from time to time, has taken steps to achieve balanced development of different regions. The process of economic development depends on the historical background and tradition, natural resources, economic infrastructure, and several such factors. Considering the complexity of the process, the Government has decided to undertake an objective and in-depth study of the problem of regional imbalance. For this purpose, the Government has decided to appoint a High Level Fact Finding Committee of Experts. Besides, the Government has also decided to appoint four regional committees for Vidarbha, Marathwada, Konkan and Rest of Maharashtra, to suggest remedial action and concrete programmes, based on the report of the Fact Finding Committee, to remove imbalance between districts within their respective regions.

1.3. Our Terms of Reference are as follows:

- (1) To decide on indicators for assessing imbalance in development.
- (2.A) On the basis of (1) above, and in relation to the average development in Maharashtra, to determine districtwise imbalance in 1960 and in the latest year for which information is available.
- (2.B) With this in view, to obtain information on the development expenditure incurred district-wise from 1960 upto the latest year for which information is available and the implementation of the development programme.
- (2.C) To take into account the assistance given by the State and Central Governments and by institutions under their jurisdiction.
- (3) To determine what action the Government could take in relation to which of the indicators and the limits thereof.

- (4) To suggest remedial action to remove the imbalance as determined and long term prevent recurrence of such imbalance.

1.4. The constitution of the Fact Finding Committee is as under:

- | | | |
|--|-----|------------------|
| 1) Dr. V.M. Dandekar | ... | Chairman |
| 2) Dr. Neelakantha Rath | ... | Member |
| 3) Dr. Narottam Shah | ... | " |
| 4) Shri P.D. Kasbekar | ... | " |
| 5) Shri Bhujangarao Kulkarni | ... | " |
| 6) Shri B.G. Dave | ... | " |
| 7) Dr. V.V. Borkar | ... | " |
| 8) Dr. S.A. Deshpande | ... | " |
| 9) Dr. V.N. Rao (Expert on Public Health) | | " |
| 10) Shri M.A. Chitale (Expert on Irrigation) | | " |
| 11) Shri R.T. Atre (Expert on Roads)... | | " |
| 12) Shri S.M. Vidwans (Expert on Economics and Statistics) ... | | " |
| 13)*Shri B.N. Bhagwat, Managing Director, SICOM (Expert on Industries) | | " |
| 14) Secretary, Finance Department | ... | " |
| 15) Secretary, Planning Department | ... | " |
| 16) Deputy Secretary, Planning Department | | Member-Secretary |

* Appointed under G.R., P.D. No. RDV-1082/CR-38/PRG-14, dt. 29-9-1983.

1.5. We were asked to submit our report before December 31, 1983. However, inspite of our best efforts we found this difficult and had to request the Government to extend the period first upto February 29, 1984, then upto March 31, 1984, and again upto April 30, 1984, which the Government kindly granted. (G.R., P.D. No. RDV-1082/CR-38/PRG-14, DT. 7-1-1984; G.R. 1032/CR-38/PRG-14, DT. 8.3.1984; G.R. 1082/CR-38/PRG-14, DT. 8.3.1984; G.R. 1082/CR-38/PRG-14, DT. 5-4-1984).

1.6. The Committee commenced its work from 2nd September, 1983 and during the months of September and October, 1983 held 7 preliminary meetings on the dates indicated below:

<u>Date</u>	<u>Venue of the Meetings</u>
2nd September, 1983	Mantralaya, Bombay.
10th September, 1983	" "
30th September, 1983	" "
7th October, 1983	" "
14th October, 1983	" "
21st October, 1983	" "
31st October, 1983	Gokhale Institute of Politics and Economics, Pune.

1.7. Subsequently, from 8th November, 1983 to 26th November, 1983, the Committee undertook tours of the various districts and held meetings with the DPDCs. All members of the DPDCs, Presidents/Vice-Presidents of the Z.Ps., Chairmen of the subject Committees of the Z.Ps., Chairmen of the Panchayat Samitees, implementing officers at the District level, Commissioners of the concerned Municipal Corporations, representatives of the organisations such as Marathwada Janata Vikas Parishad, Vidarbha Vikas Mahasabha and the Vidarbha Industries Association, were invited to attend these meetings. The discussions have proved extremely useful. During this tour all districts were covered except Bombay and Bombay Suburban district, which was covered separately on 6-1-1984. The schedule of the meetings with the DPDCs is as under:

<u>Date</u>	<u>DPDC</u>	<u>Place of Meeting</u>
8-11-83	Pune	Pune
8-11-83	Satara	Satara
9-11-83	Kolhapur	Kolhapur
9-11-83	Sangli	Kolhapur
10-11-83	Ratnagiri	Ratnagiri
10-11-83	Sindhudurg	Ratnagiri
11-11-83	Raigad	Pen
11-11-83	Thane	Thane
14-11-83	Solapur	Solapur
15-11-83	Osmanabad	Osmanabad
15-11-83	Latur	Latur
16-11-83	Beed	Ambejogai
16-11-83	Nanded	Nanded
17-11-83	Parbhani	Parbhani
17-11-83	Jalna	Jalna
18-11-83	Aurangabad	Aurangabad
18-11-83	Ahmednagar	Ahmednagar
21-11-83	Nashik	Nashik
22-11-83	Dhule	Dhule
22-11-83	Jalgaon	Jalgaon
23-11-83	Buldhana	Malkapur
23-11-83	Akola	Akola
24-11-83	Amravati	Amravati
24-11-83	Wardha	Wardha
25-11-83	Nagpur	Nagpur
25-11-83	Bhandara	Nagpur
26-11-83	Chandrapur	Wardha
26-11-83	Gadchiroli	Wardha
26-11-83	Yavatmal	Yavatmal
6-1-84	Bombay & Suburban	Bombay

1.8. After completion of the tour the Committee held a series of meetings to examine and verify the data submitted by several departments, deliberate and finalise the report. The dates of the meetings are indicated in the following:

<u>Date of the Meeting</u>	<u>Venue of the Meetings</u>
2nd & 3rd December, 1983	Mantralaya, Bombay.
8th December, 1983	" "
16th December, 1983	" "
17th December, 1983	" "
23rd December, 1983	" "
6th January, 1984	" "
7th January, 1984	" "
13th January, 1984	" "
23rd & 24th January, 1984	" "
9th & 10th February, 1984	" "
17th February, 1984	" "
23rd & 24th February, 1984	" "
8th & 9th March, 1984	" "
22nd & 23rd March, 1984	" "
30th & 31st March, 1984	" "
7th April, 1984	" "
21st April, 1984	" "
27th April, 1984	" "

1.9. It will be seen that it has taken a total of 62 meetings, 30 in the districts and 32 among ourselves, for us to complete the report. This has been an arduous task. We could not have completed it within the short time given to us but for the courtesy and co-operation we received from all concerned. We wish to keep on record our grateful thanks, first and foremost, to all the officials and non-officials we met at the meetings with the DPDCs. Second, our thanks are due to all the officers of the Departments and sub-ordinate offices of the Government of Maharashtra, and the public sector corporations and financial institutions who collected, collated and supplied us the requisite information and data in a form to meet our requirements. In this connection, we should make special mention of the staff of the Directorate of Economics and Statistics. The map attached to our chapter on Industry is prepared by Messrs. Enesar Cartographers, Bombay. Last, but not the least, we should mention the staff of the Planning Department who serviced us ably throughout our deliberations.

1.10. With great grief, we record the sudden death of one of us, Dr. Narottam Shah, in the evening of 23rd March 1984, soon after returning home after attending our meeting that afternoon. Dr. Shah's publication Levels of Economic Development in Distri. of Maharashtra (June 1982), had added a new dimension and a perspective to the problem of regional disparities in Maharashtra. His contribution to our deliberations was greatly valued. We are sorry that he is not there to sign our report.

1.11. We hope our report presented in the following pages meet the expectations both of the Government and the people. We are unanimous in our principal recommendations. But there are two Notes of Dissent and two Supplementary Notes. These together with the reply from the majority members are given in Appendix.

CHAPTER - II.

HISTORICAL BACKGROUND

2.1. Disparities in the development of different parts or regions of a country exist in almost all countries of the world, developing as well as developed, and it is increasingly recognised that these must be narrowed down. In the context of India, the National Committee on the Development of Backward Areas in its Report on General Issues Relating to Backward Area Development, (November, 1981) notes : "In a large country like India, disparities in levels of development of different parts are inevitable. Regions differ in their history, their resource endowment and environment, the level of infrastructural development and the attitude of the inhabitants to development opportunities." (para 2.1) And, further : "In our country, a very large number of people believe that the area they live and work in is, in some more or less general way 'economically backward'. Many of them also feel that their requirements have been neglected in the processes of planning. This belief has found expression in the political system and manifests itself in a large number of claims for special treatment put forward by official and non-official organisations." (para 4.1) This is also true of Maharashtra State. The preamble to the Government Resolution appointing our Committee makes a reference to this feeling of being neglected and left behind prevailing in some regions of the State. Though these regions are not named, the reference obviously is to Vidarbha, Marathwada and Konkan, particularly the former two. Hence, it will be appropriate and useful to give the historical background of the regional feeling in Maharashtra and our own approach to the problem arising therefrom.

Nagpur Agreement:

2.2. The problem goes back to the reorganization of the States. The States Reorganisation Commission was appointed by the Government of India on December 29, 1953. In anticipation, informal deliberations began among eminent social and political workers of Maharashtra on the formation of a Marathi-speaking state out of contiguous Marathi-speaking areas of the then Bombay, Madhya Pradesh and Hyderabad States, and they signed an agreement which would constitute the basis for bringing together the three Marathi-speaking areas in one single State. The agreement is known as the Nagpur Agreement (September 1953). Its salient features are as under:

(1) For the purpose of all types of development and administration, the three units, namely, Vidarbha, Marathwada and the rest of Maharashtra will be retained as such.

(2) Subject to the requirements of a single Government, the

allocation of funds for expenditure over the different units will be in proportion to their population but, in view of the undeveloped conditions of Marathwada, special attention will be given to promote all-sided development of that area. A report in this behalf will be placed before the State Assembly every year.

(3) The three units will be given representation in proportion to population in (a) the composition of the Government, (b) the admission to all educational institutions having training facilities in vocational and scientific professions or other specialised training, and (c) the services, of all grades, under Government or Government-controlled enterprises.

(4) The High Court of the new State will have its principal seat at Bombay and a second seat at Nagpur. The Bench at Nagpur will ordinarily function for Vidarbha area. While making recommendations of High Court Judges it shall be seen that Vidarbha and Marathwada areas get adequate representation in respect of appointments from the services and the bar.

(5) Subject to the efficient conduct of administration of a single State, the advantages derived by the people of Vidarbha from Nagpur as the capital of their State shall be preserved to the extent possible. The Government shall officially shift to Nagpur for a definite period and at least one session of the State Legislature shall be held every year in Nagpur.

(6) The administration will be decentralised as an effective means of better associating the people of different units with the administration.

States Reorganization Commission:

2.3. The States Reorganization Commission reported in September 1955. It did not recommend a unilingual Marathi speaking state. Instead, it recommended a bilingual state of Bombay comprising broadly the Marathi-speaking areas of the then Bombay and Hyderabad states and Gujarati-speaking areas of the then Bombay, Saurashtra and Kutch states. Notably, the Commission recommended a separate state of Vidarbha. The Commission's recommendation for a separate state of Vidarbha is to be found in Chapter VIII of its Report. In the following, we briefly summarise the same.

The origin of the movement for Maha Vidarbha can be traced back to 1905. In the circumstances which prevailed about fifty years ago, the demand for the creation of Maha Vidarbha inevitably took the form of a claim for separation from the Hindi-speaking areas. In recent years, however, the question whether this separation should lead to the formation of Maha Vidarbha or the integration of this area with a larger

Marathi-speaking unit has assumed importance (para 441). The case for the integration of these areas with Western Maharashtra rests primarily on the ground of linguistic homogeneity, although it has also been claimed that the economies of the two regions are complementary. On the other hand, the arguments advanced in favour of a separate State are historical, cultural, administrative and financial (para 443). Historical accidents are to a large extent responsible for the feeling in favour of separation which exists today in the major part of Vidarbha. Vidarbha's financial history under the bankers, to whom the revenues were farmed out, was also so unusual that there has been understandably a certain degree of suspicion ever since of persons from outside the area (para 447).

Vidarbha's financial surplus, so far as we are aware, continues. . . . In view of the satisfactory financial position of Vidarbha and since Maharashtra without Greater Bombay is likely to be a deficit area on revenue account to a very much greater extent, there is some reluctance in this area to join Maharashtra. There seems to be some prima facie justification for the suspicion that if Vidarbha joins Maharashtra, it cannot be certain that its resources will be spent within its own area on suitable development schemes and projects (para 448). The position will, of course, be different if Greater Bombay forms part of Maharashtra (para 449).

Another reason for the creation of a separate Vidarbha State is the fear that Nagpur will be completely overshadowed by Bombay city, which would be the natural capital of a single Maharashtra State, if it were created. Communalism, it has been stated, may also be introduced into the political life of Vidarbha if it joins Maharashtra. Land and tenancy laws in this area will have to be modelled on those of Bombay State; and a period of transition during which Vidarbha may be struggling to maintain and safeguard its interests, may be unavoidable. Important sections of the people in Vidarbha, in these circumstances, are not willing to run this risk (para 450).

That there is deep-rooted regional consciousness in Vidarbha is conceded even by the leaders of the movement for Samyukta Maharashtra who have offered to make concessions to allay the fears of the people of Vidarbha. The Akola and Nagpur agreements, which aim at reconciling the different points of view, go so far as to provide for a tract-wise allocation of a defined share not only in the cabinet and the executive and judicial services, but also in the educational institutions. They also contemplate the establishment of a High Court at Nagpur, the recognition of two capitals and the distribution of development expenditure on agreed basis. As we have observed in the Chapter on the new Hyderabad State, these arrangements are not workable, and, if our assessment of public opinion is correct, are no longer regarded by a

section of leaders as a satisfactory means of finding a solution (para 451). After weighing the merits and demerits of the contending views, we have come to the conclusion that it will be in the interest of all concerned if the Marathi-speaking districts of Madhya Pradesh, which form a compact unit, are constituted into a separate State (para 452).

The Commission's recommendation for a separate state of Vidarbha was of course not accepted and, in 1956, the bilingual State of Bombay comprising the Marathi speaking areas of the then Bombay, Madhya Pradesh, and Hyderabad States and the Gujarati speaking areas of the then Bombay, Saurashtra, and Kutch States came into being.

Article 371 (2):

2.4. As a consequence of the bill for the re-organization of States, the Constitution had to be amended. This was done by the Constitution (Ninth Amendment) Act, 1956. Among other amendments, Article 371, which had regard to the administration of the Part B States and President's special powers thereof, was amended. With the abolition of Part B States, this Article was deleted and a new Article 371 (1) and 371 (2) was substituted.

2.5. Article 371 (1) was with regard to Punjab, as then constituted, and Andhra Pradesh. It provided for the constitution of regional committees, and for modifications to be made in the rules of business of the Government and in the rules of procedure of the Legislative Assembly of the State. Accordingly, the President of India passed orders in 1957 for the State of Punjab and in 1958 for the State of Andhra Pradesh. For the latter, only one such committee was constituted for the Telengana region.

2.6. Article 371 (2) had regard to the State of Bombay as then constituted. It was added at the instance of the members from Vidarbha and with the full support of members from other areas of Maharashtra. The Report of the Joint Committee to which the Constitution (Ninth Amendment) Bill, 1956 was referred, records as follows : "It was urged before the Committee by its members from Vidarbha that the agreement entered into in September, 1953, known as the Nagpur Agreement, should, to the extent practicable, be given constitutional recognition. The members from the other Maharashtra areas gave their full support to this proposal. A clause has accordingly been added to the proposed Article 371 with the consent of the members from Maharashtra."(para 17), In 1960, when Bombay State was bifurcated into Gujarat and Maharashtra, only verbal modifications were made. Article 371 (2) now reads as under:

"Notwithstanding anything in this Constitution, the President may by order made with respect to (the State of Maharashtra or Gujarat), provide for any special responsibility of the Governor for -

(a) the establishment of separate development boards for Vidarbha, Marathwada, and the rest of Maharashtra or (as the case may be) Saurashtra, Kutch and the rest of Gujarat with the provision that a report on the working of each of these boards will be placed each year before the State Legislative Assembly;

(b) the equitable allocation of funds for developmental expenditure over the said areas, subject to the requirements of the State as a whole; and

(c) equitable arrangements providing adequate facilities for technical education and vocational training, and adequate opportunities for employment in services under the control of the State Government, in respect of all the said areas, subject to the requirements of the State as a whole."

Chief Minister's Assurance:

2.7. In 1960, when the bill for reorganization of the Bombay State into Maharashtra and Gujarat came up for consideration in the Bombay Legislative Assembly, Shri Y.B. Chavan, the then Chief Minister of Bombay, made a statement in the House giving certain assurances to Bombay City, Vidarbha and Marathwada. The relevant extract reads as under:

I wish to assure the people of Bombay City that it is the firm intention of the future Government of Maharashtra to preserve the cosmopolitan character of the city and to pay special attention to its developmental needs.

Likewise, I wish to assure the people of Vidarbha that they need have no apprehension that their legitimate interests will not be protected; on the other hand, they will be zealously guarded and will be treated as a sacred trust of the future Maharashtra Government. The terms of what is known as the Nagpur Pact will be honoured and wherever possible something more will be done.

Perhaps the House is not aware that the Nagpur Pact applies as much to Marathwada as to Vidarbha and I would like to state that the terms of the Nagpur Pact so far as they relate to Marathwada will equally be fulfilled. To reassure our brothers in these regions, I have placed on the Table of the House a statement of policy regarding Bombay City, Vidarbha and Marathwada, which I have just read out to you. I have taken the opportunity to stress the need for the planned development of the Konkan districts and scarcity areas of Maharashtra as well.

In this connection I would like to draw the attention of the House to Article 371 of the Constitution which contains special provisions for Bombay and other States. That Article envisages separate Development Boards, equitable

allocation of funds for developmental expenditure, equitable arrangements for technical education and vocational training and adequate opportunities for employment in State Services. The protection afforded by this Article will continue in the residual State of Bombay, that is Maharashtra.

The statement of policy placed on the Table of the House referred to above contains, inter alia, specific assurance that separate Development Boards for Vidarbha and Marathwada will be established and a report about the allocation of funds and the working of these Boards will be placed each year before the State Legislative Assembly.

A similar declaration was made through an official publication called "Guiding Principles of Maharashtra" (1960). It has been represented to us, with the greatest emphasis, that the Nagpur Agreement, Article 371 (2) of the Indian Constitution, and Maharashtra's permanent commitment to the two, announced in the House and in official publications, constitute the historical basis for the three constituent units to come together to form the new State of Maharashtra.

Follow up of the Nagpur Agreement:

2.8. The provisions of Article 371 (2) have not been invoked so far. As for the Nagpur Agreement, the Government of Maharashtra is committed to it unconditionally. We may therefore briefly examine to what extent the terms of that Agreement have been satisfied at least formally. First, for all purposes of development and administration, Vidarbha, Marathwada, and the rest of Maharashtra continue to be the main constituent units as envisaged in the Agreement; their borders have remained unchanged. Second, the administration has been decentralised as desired in the Agreement; the two larger constituent units of Vidarbha and rest of Maharashtra have been divided into Divisions; through the establishment of Zilla Parishads and Panchayat Samities in 1962 and later the District Planning and Development Councils in 1974, a great deal of development planning and administration has been decentralised at the district and lower levels; larger districts have been divided and new districts created. Third, the special status of Nagpur is recognised: every year, the Government of Maharashtra officially shifts to Nagpur for a period and one session of the State Legislature is held there. It may be said that the official shifting of the Government to Nagpur is too brief and only symbolic. We do not know that it could be anything more than symbolic, nor has it been seriously suggested to us from any quarters that it could be so. Fourth, a bench of the High Court operates from Nagpur as desired in the Agreement. In fact, since more recently, another bench of the High Court also has been operating from Aurangabad. It may, of course, be said that all this falls much short of the spirit of the Nagpur Agreement.

2.9. In respect of the remaining two terms of the Nagpur

Agreement, the position is not so satisfactory. One is the representation in proportion to population in (a) Government, (b) Vocational, Scientific, Professional and other specialised education and training and (c) services. Representation in Government is a purely political matter and we presume that political expediency, if nothing else, must have ensured a satisfactory representation to all the units in the cabinet. But, if Government was supposed to include semi-governmental bodies, such as the Government Corporations, the position appears to be unsatisfactory. As regards representation in education, training and services, no specific mechanism was created to ensure representation proportional to population. In its absence, no firm evidence can be presented one way or the other.

2.10. The other term of the Nagpur Agreement not adequately attended to was the allocation of funds for development of different units in proportion to their population with special provision for Marathwada and the crucial requirement that a report in this behalf be placed before the State Assembly every year. It seems that a beginning in this direction was made in the Third Plan (1961-66) of the State which in fact was the first plan for the new State. The plan document (p.14) presented some indicators of the disparities of development between Vidarbha and Marathwada on the one hand and the rest of Maharashtra on the other and noted that "the State's plans have to strive for the reduction of some of these disparities by the application, if necessary, of a more than proportionate share of the resources for the development of Vidarbha and Marathwada" (wrongly printed as Maharashtra). The idea was to make good the shortfall in the plan expenditure in the first and second Five Year Plans in Vidarbha and Marathwada as compared to the same in Western Maharashtra by higher allocations to these regions. In the Third Plan, the shortfall was estimated on a rough basis at Rs.23 crore for Vidarbha and Rs.19 crore for Marathwada. Hence, the Third Plan provided additional allocations of Rs.7.7 and Rs. 7.1 crore to the two regions respectively. It was stated (pp. 129-130) that the policy would continue in subsequent plans so that the shortfalls would be wiped out completely by the end of the Fifth Plan or possibly even at the end of the Fourth Plan.

2.11. Irrigation, roads and primary education were listed as the major sectors in which Vidarbha and Marathwada lagged behind. It was recognised that, in addition, Marathwada was also under-developed in power development. Higher allocations were made for irrigation and primary education to both Vidarbha and Marathwada and it was stated that higher than proportionate allocations were also necessary for road development in the two regions but that it could not be done because of large spillover of road programme in Western Maharashtra (p. 130). The Plan document in its Appendix V (p. 244-258) shows regionwise allocations of Plan outlays on all schemes other than the State level schemes. But a report in this behalf was never placed before the State Assembly in terms of the Nagpur Agreement.

2.12. As mentioned above, the higher allocations to Vidarbha

and Marathwada in the Third Plan were made on the basis of an assessment of their backlog in the first two plans. The Fourth Plan (1969-74) merely attributed the backwardness of Vidarbha and Marathwada to the meagre allocations to these regions in the first two plans (para 5.2, p.27). At the same time, it declared (para 5.4, p.28) that the entire backlog of Marathwada had been cleared and that Rs.6.6 crore were provided to make up the backlog of Vidarbha.

Reversal of Policy:

2.13. On August 20, 1969, Shri V.P. Naik, the then Chief Minister made a statement before the State Assembly to the following effect: "At the time of formation of Maharashtra in 1960, the view was accepted that Vidarbha, Marathwada and Konkan which were less developed relative to the rest of the State should be given maximum assistance for their development. However, seeing that, except for one or two districts, the rest of the State is largely underdeveloped, we should now reject the view that a certain district or a certain region is underdeveloped and hence should be given additional assistance. Instead, we should direct our efforts to secure a balanced development of all the regions of the State the whole of which is more or less underdeveloped. Taking into account this fact and objective, the Government has now decided to treat the district as the primary unit of planning." This almost amounted to an abrogation of the Nagpur Agreement. No member in the House seems to have protested.

2.14. The protest came from outside the State Assembly in the form of a private bill to amend the Constitution tabled on July 27, 1973, by Shri Vasant Sathe, then Member of Lok Sabha from Vidarbha and presently a Cabinet Minister of the Government of India. Its purpose was to amend Article 371 so as to make its provisions mandatory. In the statement of Objectives and Reasons for the Amendment Bill, Shri Sathe said : "But during the last 15 years, it has been experienced that taking advantage of the wording of the clause (2) of the above article, such as "the President may" and "subject to the requirements of the State as a whole", separate statutory Development Boards were never established, nor was the equitable allocation of funds for developmental expenditure over the said areas made. Similarly, even the policy of dispersal of industry was abandoned. Hence, it is essential to make it mandatory for the implementation of the above statutory provision enshrined in Article 371(2), so as to ensure balanced regional growth and to prevent the growth of regional tensions." Later, on August 11, 1978, another private bill to amend Article 371 was introduced by Shri S.K. Vaishampayan, a Member of Rajya Sabha from Marathwada, for similar reasons. The two bills do not appear to have come up for discussion.

Fifth Five Year Plan (1974-79):

2.15. In the Fifth Plan (1974-79), the problems of regional

development were discussed in terms of districts and not in terms of regions, such as Vidarbha, Marathwada and the rest of Maharashtra. Nevertheless, at the end of the Fifth Plan period, the Estimates Committee of the Maharashtra Legislative Assembly in its report on the Budget Proposals for 1979-80, gives certain data supplied by the Planning Department regarding plan expenditure incurred in the three regions of Western Maharashtra (including Konkan), Vidarbha and Marathwada from 1961-62 to 1978-79. We reproduce it in Table 2.1. According to this statement, against an initial estimated backlog of Vidarbha amounting to Rs.23.0 crore, additional expenditure of Rs.33.80 crore was incurred on Vidarbha during the period from 1961-62 to 1978-79; this exceeds the backlog by Rs.10.80 crore. Similarly, against an initial estimated backlog of Rs.19.0 crore of Marathwada, additional expenditure of Rs.123.46 crore was incurred on Marathwada during this period; this exceeds the backlog by Rs.104.46 crore. Evidently, the statement is purported to demonstrate that, at least in formal financial sense, the terms of the Nagpur Agreement were fully satisfied.

2.16. However, the evidence is not conclusive. Though the title of the Statement says that it covers the plan expenditure on the divisional and district level schemes, this is not true for all the plan periods. For the Third Plan Period (1961-66), the expenditure did include the divisional and district level schemes as shown in the plan documents (Appendix V. pp 244-261). It may be noted that even power generation was then treated as a divisional level scheme. As for the period of the Annual Plans (1966-69) and the Fourth Plan (1969-74), it seems that expenditure only on the district level schemes and on major, medium and state sector minor irrigation schemes was included. We could not verify this as the concerned file could not be traced. As for the Fifth Plan period (1974-79), the Statement covers expenditure only on district level schemes for which separate accounting was started from 1974-75. In consequence, the coverage of the development expenditure shown in the Statement rapidly goes down from the Third Plan period to the Fifth Plan period: it covered 91.89 per cent of the Plan expenditure of Rs.434.73 crore in the Third Plan (1961-66); 68.96 per cent of the expenditure of Rs.385.60 crore in the three Annual Plans (1966-69); 61.94 per cent of the expenditure of Rs.1,004.51 crore in the Fourth Plan (1969-74), and only 35.39 per cent of the expenditure of Rs. 2,660.13 crore in the Fifth Plan (1974-79). All plan periods taken together (1961-79), the Statement covers less than half (49.65 per cent) of the plan expenditure, and, on that basis, suggests that the per capita plan expenditure in Vidarbha and Marathwada has been more than in Western Maharashtra. But the position might be the reverse in the other half of the expenditure not covered by the above statement so much so that, if the entire plan expenditure were taken into account, the per capita plan expenditure in Vidarbha and Marathwada might appear to be no more, or even less, than the same in Western Maharashtra. Hence, the evidence is inconclusive and, in the form in which it is given it is misleading.

TABLE 2.1

Plan expenditure on Divisional and District Level Schemes between 1961-62 and 1978-79.

Particulars	Western			Total
	Maharashtra including Konkan	Vidarbha	Marathwada	
Population in lakh				
Expenditure Rs.Crore				
1	2	3	4	5
<u>Third Five Year Plan, 1961-66:</u>				
1. Population (1961)	240.03	92.07	62.94	395.04
2. Expenditure	228.45	92.71	76.18	397.34
3. Per Capita (Rs.)	95.07	100.70	121.03	100.58
4. Additional Expenditure	—	5.18	16.34	—
<u>Annual Plans, 1966-69:</u>				
1. Population (1966)	277.33	104.51	71.83	453.67
2. Expenditure	146.52	60.45	58.95	265.92
3. Per Capita (Rs.)	52.83	57.83	82.07	58.61
4. Additional Expenditure	—	5.22	21.00	—
<u>Fourth Five Year Plan, 1969-74:</u>				
1. Population (1971)	306.77	116.77	80.58	504.12
2. Expenditure	350.29	126.15	145.75	622.19
3. Per Capita (Rs.)	114.19	108.03	180.88	123.42
4. Additional Expenditure	—	(-) 7.19	53.74	—
<u>Fifth Five Year Plan 1974-79:</u>				
1. Population (1971)	306.77	116.77	80.58	504.12
2. Expenditure	534.60	234.10	172.83	941.53
3. Per Capita (Rs.)	174.27	200.47	214.45	186.76
4. Additional Expenditure	—	30.59	32.38	—
Additional Expenditure in 18 years (Rs. crore)		33.80	123.46	
Backlog determined earlier (Rs. crore)		23.00	19.00	

Source: Estimates Committee, Maharashtra Legislative Assembly Report on Budget Proposals for 1979-80 (p.31).

Sixth Five Year Plan (1980-85):

2.17. In 1980, that is at the beginning of the Sixth Five Year Plan (1980-85), the discussion of regional imbalance of Vidarbha, Marathwada, and Konkan in terms of backlog revived and gathered momentum. In response, the Planning Department, under the guidance of the State Planning Board, undertook a study of districtwise achievements in various development sectors as on 1.4.1980. It came to the conclusion that "noticeable disparities"* existed in Irrigation, Roads, Public Health, and Technical Education. It was felt that the disparities in Public Health and Technical Education could be removed by 1985 by internal adjustments within the plan outlays; but, that the requirements under Irrigation and Roads were too large to be met in this manner. Efforts were made to provide additional funds for these two sectors by intra- and inter-sectoral diversion of funds. However, with major commitments already made under the Sixth Plan, the scope for such diversions was very limited.

2.18. The Sixth Five Year Plan (1980-85) of the Government of India mentions the following two among its ten objectives : (vii) a progressive reduction in regional inequalities in the pace of development and in the diffusion of technological benefits; and (x) promoting the active involvement of all sections of the people in the process of development through appropriate education, communication and institutional strategies. The Government of Maharashtra, in its Sixth Plan document published in March 1981, repeats word by word the other eight objectives but, without explanation, omits these two. (Family planning is added to make a total of nine objectives).

2.19. In the Foreword to the Plan document, the Chief Minister refers to "problems of rapid removal of developmental imbalance as well as removal of backwardness in certain identifiable districts and pockets in the State". This appears consistent with the policy announced by Shri V.P. Naik, the then Chief Minister, on August 20, 1969. Nevertheless, in Chapter I of the Sixth Plan document of the Government of Maharashtra, the following paragraph appears:

"5. While taking full account of the main objectives as spelt by the NDC, (National Development Council), the Maharashtra plan lays special emphasis on programmes for rapid reduction of poverty and unemployment, reduction of regional and districtwise imbalances in a time-bound manner, and pays special attention to the problems of weaker sections of society, All the important policy pronouncements made by the Chief Minister and the present government, especially in regard to the programme relating to the removal of development imbalance of identifiable under-developed areas in the State like, Vidarbha, Marathwada and Konkan are concretised in the sectoral schemes."

In fact the Sixth Plan does not contain any such specific/time-bound schemes as mentioned above. The reference to the "important policy pronouncements made by the Chief Minister" relates to a 14-Point Programme for Vidarbha, a 35-Point Programme for Marathwada, and a 17-Point Programme for Konkan, the Chief Minister announced in the State Assembly in December 1980. It will be noticed that 4 points were added to the 13-Point Programme for Konkan, subsequently. For "monitoring the implementation" of these programmes and "reporting to Government from time to time the actions taken/required to be taken in this regard" Monitoring and Review Committees were constituted for Marathwada on February 10, 1981, for Vidarbha on June 29, 1981, and for Konkan on August 7, 1981. Further, in December 1981, the Chief Minister announced, in the State Assembly, an additional 24-Point Programme for Vidarbha. All the special programmes mentioned above are shown in Annexure.

2.20. Since 1980, the development imbalance and backlog of Vidarbha, Marathwada and Konkan are being raised at several forums and sessions of the State Assembly. The backlog of Vidarbha is regularly debated in the Nagpur Session of the State Assembly while the backlogs of Marathwada and Konkan are discussed in the other sessions of the Assembly. In response, in March 1982, the Government appointed a Study Group for Determining the Backwardness of Konkan. Its final report is not so far received. The debate on Marathwada was raised during the 1983 Budget session of the Assembly. In the monsoon session of 1983 a resolution was moved to appoint a Study Group at the State Level to study the backlog of Vidarbha, Marathwada and Konkan. In response, on July 29, 1983, the Government announced the appointment of our Committee.

2.21. In concluding this brief historical background of the regional feeling in Maharashtra, we wish to say that, in our opinion, the failure to report to the State Assembly every year in terms of the Nagpur Agreement has been a serious lapse on the part of the State Government. If a report had been made to the State Legislature, as envisaged in the Nagpur Agreement, the matter would have received sustained attention. In the circumstance, this did not happen. The casual attempts recently made for eliminating the regional disparities by announcing a 38-Point, a 35-Point and a 17-Point programme for Vidarbha, Marathwada and Konkan respectively, without specific resources being allocated for the purpose, have added to this feeling of distrust. The demand for invoking the provisions of Article 371 (2) of the Constitution is mainly an expression of this feeling of hurt and distrust.

Annexure

Special Programmes declared by Government for
Rapid Development of Vidarbha, Marathwada and Konkan.

Vidarbha

December, 1980

- (1) Refund of loans to cotton growers and staying of recovery of new loans of cotton producers in view of scarcity conditions.
- (2) Setting up of at least 2 Co-operative Spinning Mills in each of the cotton producing districts in Vidarbha.
- (3) Establishment of 3-Big oil extraction plants for production of oil from cotton seed.
- (4) Setting up of orange processing plant in view of large scale production of oranges in Vidarbha.
- (5) The support price announced by Government for paddy and jawar will be made effective from the 1980 season.
- (6) Encouragement for setting up of Co-operative Societies of Bidi Workers and Weavers.
- (7) Establishment of heavy vehicle plants at Bhandara by Ashok Leyland Company by 1983.
- (8) Setting up of 2 cement factories of 10 lakh tonnes capacity each in Chandrapur district and their completion within three years.
- (9) Setting up of a cellulose plant for processing of cotton lint.
- (10) Establishment of a Super Thermal Station in Chandrapur district for meeting the increasing demand of power for industrialisation and agricultural development.
- (11) Expeditious completion of water supply schemes for Nagpur, Kamptee and Bhandara for supply of water for drinking purposes and industries and making available necessary funds therefor.
- (12) Reorganisation of talukas on the basis of Panchayat Samities with effect from 1st May, 1981.
- (13) Project affected persons should be rehabilitated as early as possible.
- (14) Wardha scheme should be implemented.

December, 1981

- (1)(A) 11 major irrigation projects and 38 medium irrigation projects should be completed by 1990.
 - (B) Survey and investigation of Pindkepar project and its commencement in the VI Plan.
 - (C) Commencement of Hooman project for supply of water to Durgapur Thermal Station.
 - (D) Supply of water to Khaparkheda Thermal Station from the Pench Project.
- (2) Construction of 2,650 Kms. of new roads for removal of imbalance in roads.
- (3) All villages to be electrified by the end of the current Five Year Plan.
- (4) Establishment of handloom processing centre at Nagpur.
- (5) Drawing up of a special housing scheme for handloom weavers.
- (6) To take steps for establishment of 7 sugar factories in Vidarbha.
- (7) Establishment of chilly processing centre.
- (8) Implementation of 'Operation Flood' scheme in Buldhana, Yavatmal, Bhandara and Chandrapur Districts.
- (9) Provision of primary education facility within a distance of 1.5 Km. by end of VI Plan.
- (10) Formulation of a project for establishment of industries based on local forest resources.
- (11) Development of Kamti-khairi as tourist centre and providing facilities for visitors at Navegaon-Bandh, Tadoba, Chikhaldara and Nagazira.
- (12) Establishment of a post-graduate medical institute at Nagpur on the lines of institute at Chandigarh and Delhi.
- (13) Establishment of Cardio-Vascular and Neuro Surgical Unit in Nagpur Medical College during the VIth Plan.
- (14) Introduction of Textile Course in Nagpur Polytechnic.
- (15) Introduction of training course in carpet weaving for 3,000 youths belonging to the weaker sections and providing Rs.2.00 crore for this purpose.

- (16) Nationalisation of two cotton mills at Pulgaon (Wardha) and Badnera (Amravati).
- (17) Conversion of post S.S.C. Diploma course at Regional Labour Institute, Nagpur into degree course during the VIth Plan.
- (18) Establishment of manure mixture plant through MAIDC.
- (19) Efforts should be made to establish industries based on petro-chemicals.
- (20) Efforts should be made towards establishment of a plant of Bharat Electronics Corporation, Bangalore.
- (21) Proposal for establishment of a University for Amravati Division should be forwarded to Central Government.
- (22) Efforts to be made for establishment of Medical College in Amravati Division.
- (23) Establishment of one Engineering College in Vidarbha.
- (24) Efforts should be made for establishment of Sainik School at Kamptee.

Marathwada

January, 1981

- (1) Completion of Jayakwadi Project Stages I and II during the VI Plan Period.
- (2) Expediting construction of Nandur Madhameshwar, Vishnupuri and Lower Ternas Projects, which had come to a standstill.
- (3) Completion of Parli Unit-IV during VIth Plan.
- (4) Work of setting up 12 MW Plant at Paithan should be completed as early as possible.
- (5) One of the three projects of MELTRON should be set up in Marathwada.
- (6) The TEXCOM mill either be strengthened or merged in MSTC.
- (7) To encourage private sector to set up a composite textile mill in Marathwada.
- (8) Completion of the Leather Plant at Govrai by the LIDCOM.
- (9) Encouragement to Private Sector for setting up of light commercial vehicle plant and plastic fibre unit.

- (10) Setting up of a Committee to recommend encouragement and revival of traditional handicrafts, Bidri, Himroo and Mashroo shawls industries.
- (11) Establishment of at least 5 co-operative sugar factories in Marathwada.
- (12) Establishment of 2 Co-operative Cotton Seeds Oil Plants.
- (13) Establishment of at least 10 Co-operative Spinning Mills in Marathwada.
- (14) Establishment of Anand type dairy project at Udgir.
- (15) Extension of "Operation Flood" to Aurangabad, Beed and Osmanabad Districts.
- (16) Establishment of a Dental College in Marathwada.
- (17) Establishment of a Dialysis Unit and Cobalt Unit at Aurangabad.
- (18) Establishment of one Engineering College during Vith Plan.
- (19) Establishment of One Polytechnic in the Vith Plan.
- (20) Development of Institute of Science at Aurangabad.
- (21) Grant of recognition to the Master of Social Welfare and Industrial Labour Relation courses.
- (22) Introduction of sugar technology, textile and electronic courses in Marathwada University.
- (23) Black topping of all roads connecting Taluka Head Quarters to District Head Quarters.
- (24) Appointment of a Committee under the Chairmanship of Shri Kazi Saleem for development of Verul and its surroundings.
- (25) Establishment of a Sant Peeth at Paithan.
- (26) Early disposal of grievances of ex-Hyderabad State employees.
- (27) Reorganisation of revenue divisions in Marathwada according to need.
- (28) Establishment of a division bench of Bombay High Court at Aurangabad.
- (29) Conversion of Manmad-Aurangabad into Broadgauge line.

- (30) Early efforts for obtaining approval of the Centre for conversion of Solapur-Osmanabad-Beed-Aurangabad-Dhule road, Thane-Nagpur-Beed-Nanded-Nirmal Road and Hyderabad-Akola Road into National Highways.
- (31) Inclusion of 19 talukas of Marathwada in the centrally sponsored Drought Prone Area Programme.
- (32) Recommend to Government of India for establishment of separate sugar zone for Marathwada and adjoining areas.
- (33) Establishment of a factory by HMT in Marathwada.
- (34) Establishment of T.V. Repeater Centre at Mhaismal.
- (35) Constitution of Monitoring and Review Committee at divisional level.

Konkan

August, 1981

- (1) Konkan University (Maharashtra Technological University) project.
- (2) Medical College (All India Institute of Medical Sciences for communicable diseases) project.
- (3) Bombay Mainland Project.
- (4) Agricultural projects for Konkan.
- (5) Irrigation Projects (Swaminathan Committee's report and Khatal Committee's report).
- (6) Hydro Electrical Projects (Balliappa Committee's report).
- (7) Improvement of one major port and three other minor ports in Konkan (Kalyani Committee).
- (8) Ship breaking yard and off-shore based industries at Agardanda.
- (9) Improvement of Dighi Harbour for sugar export.
- (10) Horticulture and Social Forestry Project (Jayanantrao Patil Committee).
- (11) Dry Farming in Konkan area as per directives of the Government in this regard.

- (12) Konkan Railway Project.
- (13) Two or three projects from the Gulf list of projects likely to be located in Konkan Region and a Paper Project likely to be set up in collaboration with the West African Countries at a suitable point on the Konkan shore.
- (14) Establishment of Thermal Power Station at Dabhol.
- (15) Development of Fisheries.
- (16) Development of Khar lands.
- (17) Development of Sindhudurg Complex.

CHAPTER III

APPROACH

3.1. In the previous Chapter, we reviewed the historical background of the problem of regional disparities in Maharashtra and incidentally indicated briefly how the State Government has approached the problem from time to time. In this Chapter, we shall describe our own approach to the problem.

District as Unit of Analysis:

3.2. Our terms of reference require us to examine regional disparities districtwise. This is in consonance with the policy the State Government has pursued since 1972. By a resolution dated October 20, 1972, Government resolved to constitute a District Planning Board in each district. Its preamble begins with the statement: "The Government of Maharashtra has decided to adopt the district as the unit of planning and to formulate perspective plans for each district so that imbalances in development as between districts and areas within the same district are steadily removed to the extent possible and all the districts are given an opportunity to attain full development having regard to their potential, available manpower, and other resources." Nevertheless, during our tour of the districts, we were struck by the antipathy to this notion and we sensed a deep-seated suspicion, in some quarters, that the Committee has been asked to examine the problem in terms of districts as units mainly to undermine the regional identities of Vidarbha and Marathwada. We wish to assure that we do not view our task in that spirit. It has been persistently impressed upon us that the regional identities of Vidarbha and Marathwada, as historically evolved socio-cultural units, do not undermine the unity of Maharashtra. We share that view. But, at the same time, we believe that an analysis of the problems of regional development and disparities in terms of smaller units such as districts need not and does not undermine the identity of a region. Indeed, it makes possible a better understanding of the complex factors underlying regional disparities in development.

3.3. In fact, the National Committee on the Development of Backward Areas has recommended that the primary unit for the identification of backward areas should be the development block (Report on General Issues Relating to Backward Areas Development, November, 1981). The Committee notes: "The unit should be small enough to ensure a certain homogeneity of condition so that a further differentiation of approach within the area is not necessary. At the same time the unit must be large enough to be suitable for local planning. . . Hence, the unit chosen must fit into the framework of development administration (para 4.9). The district in India is, on average, a large unit. . . Hence, if the district is chosen as the unit of demarcation, there is danger that the benefit of special measures may accrue largely to

the more developed parts of the districts. The development block, . . . because it is smaller, is more homogeneous in physical and socio-economic conditions. The National Committee would recommend that the primary unit for the identification of backward areas should be the development block" (para 4.11).

3.4. If district is too large a unit to be sufficiently homogeneous for classification according to degrees of development, the constituent units of Maharashtra, namely, Vidarbha, Marathwada, and the rest of Maharashtra, are certainly too large for the purpose. If they are used as the basis for identifying backward areas and determining their backwardness, there is danger, as the National Committee points out, that the benefits of special measures may accrue largely to the more developed parts of the constituent units. This has happened in the past. As we shall see, large disparities in development between the districts and talukas exist within Vidarbha, within Marathwada and within the rest of Maharashtra; they are as large and sometimes larger than the average differences between the three units. Hence it is imperative that we examine the disparities in development at a level below these units, which is either a district or a taluka.

3.5. As mentioned above, our terms of reference require us to examine the disparities in development districtwise and this is what we shall do. The readily available data, in most sectors, also do not permit us to go below the district and examine the disparities at the taluka level. But it seems to us that, for many purposes, our analysis will have to be carried further to the taluka level. We do not wholly endorse the recommendation of the National Committee that the primary unit for identifying backward areas should be the development block. The choice between the district and the block or taluka will depend on the particular field of development and the average level it has reached. Considering the average level of development reached in the particular field, it will depend upon how uniformly we may expect the development to spread either per unit of area or population. In general, with higher level of development, one may expect it to spread more evenly and hence one may take a smaller unit to examine disparities. It is in this sense that perceptions of disparities may be said to be a consequence of development. For instance, in a number of fields such as primary education, primary health care services, village roads, drinking water supply, rural electrification, agricultural and animal husbandry services, and co-operation, Maharashtra has now reached a level of development where it is not unreasonable to expect that it should spread evenly in all talukas. Hence, in examining disparities in development in these fields, it will be appropriate to take the taluka as the unit. We would do this if relevant data compiled taluka-wise was readily available. On the other hand, the development in certain fields has not proceeded far enough to expect an even distribution as between talukas. Such is the case for instance with secondary and higher education, technical training, hospitals and major district roads. In such cases, one may reasonably expect the development

to spread evenly as between districts and it will be appropriate to take district as a unit for judging disparities in development.

3.6. But there are fields where the present level of development is so low that it would be premature to expect an even spread even as between districts. Such for instance is the case with university and professional education, and State and national highways. It is obviously premature to expect a university, or a medical and an engineering college in each district. For the same reason, it is not very meaningful to measure the length of State and national highways in each district, though it can of course be done. To judge the disparities in development in these fields, a unit larger than the district is needed and it will be entirely appropriate to choose for the purpose, the three constituent units of Vidarbha, Marathwada and rest of Maharashtra - Vidarbha and rest of Maharashtra divided into two or three divisions each, simply because they are too large for the purpose in hand. On the other hand, an assessment of the disparities in the development of irrigation in the State cannot be complete without reference to the drought-prone areas, and hence a some analysis at the taluka level becomes essential. Industrial development has its own peculiar features. The level of development is as yet too low to expect spatially much even distribution. At the same time, even at this low level of development, or because of it, a certain concentration or agglomeration, in what are called growth centres, appears necessary on technical, economic and operational considerations. Therefore, the disparities in industrial development may have to be examined in terms of dispersal of such growth centres. Thus, there does not appear any single unit appropriate for a discussion of disparities in the development in all fields. The choice of unit must be so made as will make the analysis of disparities relevant and operationally meaningful in terms of planning and administrative action.

Development Expenditure:

3.7. Our terms of reference require us to review the development expenditure incurred in different districts beginning with 1960 upto the latest year for which data may be available. We are sorry to say that within the available time, we could not obtain all the requisite data. In the circumstance, it has not been possible for us to review the development expenditure incurred in the districts in its totality nor trace such a review as far back as 1960. We shall present the results of available data in a subsequent chapter (Chapter V). Here, we wish to make an observation.

3.8. The emphasis on the development expenditure in different districts arises from the concept of backlog in per capita development expenditure incurred in the three constituent units of Vidarbha, Marathwada and rest of Maharashtra. As we have seen, this was a key element in the Nagpur Agreement. We have also quoted the evidence from the Estimates Committee's Report on

the Budget Proposals for 1979-80, to the effect that the backlog of both Vidarbha and Marathwada has been more than made up, and shown how inconclusive or even misleading such comparisons could be. There is yet another point we would like to make in this context.

3.9. Over the period, the developmental expenditure of the State Government has increased enormously; in fact, 23.63 fold, from a mere Rs.109.20 crore in 1961-62 to Rs.2,579.98 crore in 1982-83. A part of this increase is of course due to the larger development activity undertaken and promoted by the Government. But partly the increase in the expenditure is also because of increase in prices and costs over the period. For instance, the average Wholesale Price Index for 1982-83 with 1960-61 as base was 522. Hence, if, over the period, the distribution of Government's development expenditure between districts has changed, it will not be appropriate to add up the developmental expenditure in different districts over the period and compare the total on a per capita basis. This may give apparently equal per capita total developmental expenditure over the period in two districts; but if the total consists of a relatively large expenditure in earlier period in one district and a relatively large expenditure in later period in the other district, the apparent equality in per capita expenditure would be only nominal. In real terms, the developmental expenditure in one district would be much larger than in the other. Hence, though this has been much used in the present debate, we think that, rather than concentrating attention on per capita development expenditure, we should examine disparities between districts and regions in physical achievements in a number of specific fields.

Indicators of Development:

3.10. This brings us to the question of appropriate indicators of development or backwardness. Our terms of reference also require us to determine indicators to assess imbalance or disparities in development. Many indicators have been used in the current debate. The subject has also been much discussed at the national level. It will, therefore, be useful to give a brief resume of the same.

3.11. Though the first two Plans made reference to problems of regional development, it was in the Third Five Year Plan (1961-66) of the Government of India that a separate chapter was devoted to Balanced Regional Development (Chapter IX). On indicators of development, the Plan document says: "For assessing levels of development in different regions, indicators of development based on agricultural production, industrial production, investment, unemployment, electricity consumption, irrigated area, value of output by commodity producing sectors, level of consumption expenditure, road mileage, primary and secondary education and occupational distribution of population are useful (para 23). As a comprehensive indicator of economic progress, estimates of State income are of considerable interest in studies of development in different States and regions. There

are complex questions connected with concepts, definitions and techniques of estimating 'State' and 'Regional' income and these have a bearing on the practical value of various estimates. The 'State income' may be considered either as the income originating within the boundaries of a State or as income accruing to its residents. The first concept corresponds to the 'domestic product' for the country as a whole, and the second to the 'national income'. For a comparative study of the level of industrial and economic development among States or regions, it is sufficient to have an estimate of income originating within the State or region. The estimates of income accruing to a State, on the other hand, may serve as a broad measure of the economic welfare of the residents of the State as a whole." (para 24).

Pande Committee:

3.12. In 1968, the Government of India appointed a Working Group on Identification of Backward Areas - commonly known as the Pande Committee. This was mainly in the context of providing incentives for industrial development. The Committee recommended the following criterion for identifying backward districts : (i) Distance from larger cities and large industrial projects; (ii) per capita income; (iii) population engaged in secondary and tertiary activities; (iv) factory employment; (v) non/under-utilisation of economic and natural resources. Subsequently, the Planning Commission, in consultation with the National Development Council, recommended the following criteria : (i) Per capita foodgrains/commercial crops production; (ii) Proportion of agricultural workers; (iii) Per capita industrial output (gross); (iv) Factory employment or alternatively employment in secondary and tertiary activities; (v) Per capita consumption of electricity; (vi) Length of surfaced roads and railway mileage in relation to population. Incidentally, both Pande Committee and the Planning Commission had suggested that, for incentives for industrial development to be given, the districts should have minimum level of infra-structural facilities.

3.13. The Pande Committee had identified the following 13 districts in Maharashtra as industrially backward according to the criteria laid down by the Planning Commission: Beed, Osmanabad, Bhandara, Ratnagiri, Aurangabad, Yavatmal, Chandrapur, Dhule, Buldhana, Nanded, Parbhani, Jalgaon and Kulaba. These districts were approved by the Planning Commission as backward districts and are qualified to receive financial concessions for development of industries. In particular, the districts of Ratnagiri, Chandrapur and Aurangabad were declared as backward districts qualified to receive from the Central Government outright grant or subsidy equal to 15 per cent of the fixed capital investment of new units. The Draft Fifth Five Year Plan of the State Government notes that the districts of Chandrapur, Yavatmal, Parbhani, Beed, Nanded and Osmanabad are also identified as economically backward districts, requiring special efforts for their all round development. (Page 451, Chapter 24 - para 4 (II)).

Chakravarty Committee:

3.14. The problem of identification and classification of backward areas has been more methodically examined by the Chakravarty Committee on Backward Areas. Its Draft Report is extracted by the National Committee on the Development of Backward Areas (Report on General Issues Relating to Backward Areas Development, November 1981, Annexure 4.1). The Committee chose the following fourteen indicators : (1) Density of population per sq. km. of area; (2) Percentage of agricultural workers to total working force; (3) Gross value of output of foodgrains per head of rural population; (4) Gross value of output of non-foodgrains per head of rural population; (5) Gross value of output of all crops per head of rural population; (6) Percentage of total establishments using electricity to total number of establishments (manufacturing and repair); (7) Percentage of household establishments using electricity to total household establishments; (8) Percentage of non-household establishments using electricity to total non-household establishments; (9) Number of workers in registered factories per lakh of population; (10) Length of surfaced roads per 100 sq. kms. of area; (11) Length of surfaced roads per lakh of population; (12) Percentage of male literates to male population; (13) Percentage of female literates to female population; and (14) Percentage of total literates to total population.

3.15. The choice of indicators inevitably depends upon the availability of data. Often, there is much overlap among the chosen indicators. For instance, among the fourteen indicators chosen by the Chakravarty Committee, three relate to consumption of electricity and three to literacy. Having chosen a large number of indicators, indicating levels of development in fields, some closely related, others not so closely related, these are combined into a single index of what might be called an index of overall development. This involves two steps. First, to convert all the indicators to a common base because one cannot combine rupees, miles, numbers and percentages. Two alternative methods are normally used. One is to rank-order all the units, say districts, in descending or ascending order by each indicator. Thus, districts may be rank-ordered according to the density of population per sq. km. and given ranks say from 1 to 25. This is done for each indicator. The other alternative is to convert all indicators to corresponding indices with a common base as 100. Thus, the density of population in a district is expressed as percentage of the average density in the State as 100. This is done for all indicators. Both methods reduce the several indicators to a common base, so that they may be combined. It should be noted that the two methods judge the disparities very differently. The rank method is particularly arbitrary. For instance, according to the 1981 census, the literacy rate was highest in Nagpur (excluding Greater Bombay) being 54.56 per cent. The next two districts in rank order are Pune (54.03 per cent) and Amravati (51.82 per cent). The difference between the

literacy rates in Nagpur and Pune is 0.53 percentage points; between Pune and Amravati, the difference is 2.21 percentage points. But the difference in ranks is one between Nagpur and Pune and also one between Pune and Amravati. What is worse, the difference between the ranks of Pune and Amravati is one because there is no district with literacy rate between the two. If, for instance, literacy rate of Wardha was between that of Pune and Amravati, the rank difference between Pune and Amravati would be two and not one though the literacy rates of Pune and Amravati would have remained as they are. From this standpoint, converting indicators to indices is more satisfactory. The arbitrary element in that procedure is the choice of the base, as for instance the State average. If one chose another base such as a norm, a target, or the maximum, and call it 100, the disparities in districts as judged by the index would change too.

3.16. Having converted the several indicators to a common base either by rank ordering or indexing, the next step is to combine them into a single index of what might be called the index of overall development. The chief problem in this is to decide on how much weightage to give to different indicators : How much weight to attach to literacy compared to electricity consumption, or road length? Or for that matter, how much weight to attach to male literacy compared to female literacy? Or, again, how much weight to attach to road mileage per sq.km. compared to road mileage per lakh population. As the National Committee on the Development of Backward Areas observes: "Since the choice of indicators does not necessarily reflect a prior analysis of relevant factors, there is as yet no acceptable method of aggregation. In many cases, all the indicators are given equal weight on the principle of ignorance. With this procedure, some variable which is over-represented in the set because data are easily available (e.g. literacy) automatically gets a higher weight". (Report on General Issues, para 4.17).

3.17. In order to construct a composite index, Chakravarty Committee also gave equal weight to all indicators. In the Ranking Method, the individual ranks of the districts by the several indicators were simply added to give a total rank for the district. Then, taking the median value as the cut-off point, all districts which had a value below the median value were classified as backward. By this method, 164 districts (out of a total of 326 districts taken for analysis) got classified as backward areas. In the Index Method also, the aggregate index for a district was obtained by taking a simple average of its indices corresponding to the several indicators. Then, all districts with index below 100 were taken as backward. 206 districts thus got classified as backward.

3.18. There is a third method of aggregating a number of indicators into a single indicator. It is called the Method of Principal Component Analysis. The National Committee on the Development of Backward Areas makes the following comment on this method: "Roughly speaking, the method of principal component analysis can be used to reduce one set of indicators to a smaller

number of indicators by taking into account the inter-correlations amongst the indicators in the original set. . . . The method is useful if any one of the new set of indicators (a) explains a substantial proportion of the variance, and (b) has the expected signs on the weights attached to each of the original indicators. There is no guarantee that this will always be the case." (Report on General Issues, para 4.18).

3.19. Chakravarty Committee has used the Method of Principal Component Analysis. It was found that 83.02 per cent of the total variation of the fourteen variables could be described by three basic components: 45.04 per cent by the first, 24.21 per cent by the second, and 13.77 per cent by the third component. Judging by the signs on the weights attached to each of the original indicators, the Committee chose to call the first component, the index of backwardness; the second component, the index of rural development; and the third component, the index of industrial development. The districts were classified on the basis of only the first component which accounted for only 45 per cent of the variation of the set of fourteen indicators chosen. 181 districts were classified as backward.

3.20. Thus, the Chakravarty Committee made use of three methods for aggregating the fourteen indicators it initially chose. The Ranking Method classified 164 districts as backward; the Index Method classified 206 districts as backward; the Principal Component Analysis classified 181 as backward. 155 districts were classified as backward by all the three methods. The Committee considered these common districts to constitute "the hard core of backward areas in the country".

3.21. We may make two incidental observations: (a) As mentioned above, simple ranking method identified 164 districts as backward; of these 155 were common to the other two methods. Hence, as a single method of combining the several indicators, at any rate in the present case, the simple ranking method appears to be adequate. It is also the simplest though rather arbitrary. (b) Among what Chakravarty Committee calls "the hard core of backward areas in the country", only two districts of Maharashtra appear. One is Beed. The other is, presumably, Chandrapur.

National Committee on Development of Backward Areas:

3.22. From the operational standpoint, the most important criticism made by the National Committee on the Development of Backward Areas (NCDBA) of a composite index of backwardness, howsoever arrived at, is that it "does not classify districts into problem categories and in fact further analysis is required in order to do this". (Report on General Issues, para 4.20).

3.23. The NCDBA examines whether, rather than using a composite index obtained by combining a number of indicators, we could use simple measures like the percentage of population below the poverty line or the rate of unemployment or the value of the domestic product per capita. The Committee does not find these

measures satisfactory. It says: "Poverty and unemployment may be manifestations of backwardness but are certainly not causative factors. (para 4.22). With regard to estimates of domestic product at district/block level, some rudimentary calculations are possible. However, the usefulness of such income estimates is open to question. The income generated in an area is not the same as the income accruing. At the block or district level the difference between these two concepts can be quite substantial. For instance, a block or district in which a very large industrial enterprise is situated will show a high level of income from manufacturing. But a substantial proportion of this income may accrue to people outside the block/district in the form of profits. Similarly, a block/district with a large forest area will show a high level of income from forestry. Here too the bulk of this income may accrue to the State Government rather than to people of the area. Apart from this, there are also some difficulties in defining clearly the income generated within a district from activities like rail transport, power distribution, etc." (para 4.23). We may add that even these simple measures such as population below the poverty line, or the rate of unemployment, or the per capita domestic product, are not usually recommended to be used singly as indicators of development. If they are to be used together, the problem of combining them in a composite index arises as in other cases. Further, these simple measures, whether used singly or combined into a composite index, do not also classify the districts into what the NCDBA calls the problem categories.

3.24. The NCDBA also examines whether "instead of using an overall index, it may be easier to define sectoral indices to identify backwardness with respect to specific sectors of development, e.g., agricultural backwardness, industrial backwardness, educational backwardness, etc.". The Committee observes : "Such indices may be of use in the monitoring of regional inequalities at the sectoral level. In particular, the concept of industrial backwardness may have some validity. But as a general answer to the problem of identifying backward areas, the sectoral index approach is not very promising." (para 4.24).

3.25. Thus, the NCDBA does not approve using an overall index to identify backward areas. Instead it recommends that the following problem areas should be recognised as backward: (i) Chronically drought-prone areas; (ii) Desert areas; (iii) Tribal areas; (iv) Hill areas; (v) Chronically flood-affected areas; and (vi) Coastal areas affected by salinity. The Committee views these as six types of fundamental backwardness and recognises that an area may suffer from the handicaps of more than one type of fundamental backwardness. Besides these six types of fundamental backwardness, the NCDBA recognises two other handicaps: One is the prevalence of feudal elements in production relations and social structure. The second is lack of administrative presence. The first requires fundamental restructuring of society. Regarding the second, the Committee recognises the gravity of the problem but would not treat administrative backwardness as another type of backwardness. It

says: "To begin with, administrative backwardness is not readily measured in any objective manner. The absence of institutions and the number of vacant posts can be quantified but the poor quality of personnel cannot be reduced to any index. Secondly, the answer to this problem lies in administrative action and not in any special area development programme. Finally, many of the areas suffering from administrative deficiencies are, in fact, the areas of fundamental backwardness listed earlier." (Report on General Issues, para 4.38).

Our Approach:

3.26. We generally share the NCDBA's reluctance to use a single indicator, composite or otherwise, to identify backward areas or districts. But, we do not accept the idea of setting aside all quantitative data and instead identify backward areas or districts on the basis of what the NCDBA calls types of fundamental backwardness. In fact, our central purpose is not so much to identify backward areas by classifying the districts into two classes called Backward and not-Backward. Our main purpose is to, what the NCDBA calls, "monitor regional inequalities" and this as the NCDBA points out has to be done at "sectoral level". Even in relation to the sector, our purpose is not to construct indicators to identify broad sectoral backwardness such as agricultural backwardness, industrial backwardness, educational backwardness, etc. We propose to examine disparities in development and measure the backlog of the districts lagging behind in each sector in much greater detail, so that the disparities are identified in operationally meaningful terms. We shall do this in a series of chapters devoted to each sector or subject.

3.27. As a preliminary to such sectoral examination of the disparities, we shall present in Chapter IV some indicators of development. These are : (1) Per Capita Domestic Product; (2) Per Capita Consumer Expenditure; (3) Per Capita Domestic Product originating in Agriculture and Allied Activities Sector; (4) Per Capita Domestic Product originating in Registered Manufacturing Sector; (5) Percentage of Urban Population; (6) Percentage of workers engaged in activities other than agriculture and such occupations as mining, quarrying, livestock, forestry, fishery, hunting, plantations, orchards, etc.; (7) Per Capita Consumption of Electricity; (8) Per Capita Bank Credit and Bank Deposits, and Credit/Deposit Ratio; (9) Male and Female Literacy; and (10) Percentage of Scheduled Tribes, Scheduled Castes, Nav Baudhas and Agricultural Labour in the population.

3.28. This general review will be followed, after the Chapter on Development Expenditure in districts, by a series of Chapters in which we shall examine the disparities between districts in each sector. Large disparities are known to exist in Roads and Surface Irrigation. Hence we shall begin with them. In Chapter VI, we shall examine the disparities in Road Development and, in Chapter VII, Surface Irrigation. Another item of infrastructure

of growing importance is electricity. In Chapter VIII, we shall examine the disparities in Rural Electrification. All the three items of infrastructure are provided at public cost and it is imperative that existing disparities in them should be reduced. We shall assess the backlog in development in those districts where the present development is below the State Average. For this purpose we shall suggest indicators appropriate to each case.

3.29. We shall next consider a set of social service sectors, namely, General Education (Chapter IX), Technical Training (Chapter X), Health Care Services (Chapter XI), and Water Supply (Chapter XII). In all these services, except in Water Supply, though the major part of the services are provided by the Government, a certain amount is also provided by voluntary effort of the people. For instance, there are non-governmental, unaided primary and secondary schools, technical training institutes, and dispensaries and hospitals. While assessing disparities in these sectors we shall not take into account the services thus provided by voluntary effort. We shall enquire whether the services provided at public cost are distributed equitably as judged by indicators appropriate to each sector and assess the backlog on that basis. This will ensure that, while trying to reduce the disparities in the provision of these services, voluntary effort is not discouraged.

3.30. Finally, we shall consider the four major production sectors, namely, Industry (Chapter XIII), Agriculture (Chapter XIV), Veterinary Services (Chapter XV) and Co-operation (Chapter XVI). Except for the industrial units in the public sector, the effort in these sectors is essentially private including co-operative. Governmental function is mainly to promote and facilitate the private productive effort and give it a desired direction. Naturally, while assessing the disparities in these sectors, we shall focus attention on examining whether and to what extent the existing disparities arise from the present policies and supporting programmes of the Government.

3.31. This does not cover all the sectors; for instance, Welfare of Backward Classes, which we could not examine for non-availability of data. Moreover, we have not been able to examine all the programmes or schemes of the sectors mentioned above; for instance, buildings of primary schools. Our choice was limited by the availability of relevant data. Besides, there are aspects and activities which are considered non-developmental, as for instance, staffing of district and taluka offices, which we have not examined; but if there exist disparities in these respects, they are not altogether irrelevant to disparities in development. Nevertheless, we suppose that our coverage is wide enough to initiate action to remove the existing disparities in some of the more important fields. We expect that necessary steps will be taken to examine and treat in like manner other relevant programmes and schemes at the earliest.

3.32. As already explained, our emphasis throughout will not be so much on the developmental expenditure incurred as the physical targets achieved in the several sectors. We shall assess the disparities in development and the backlog of districts lagging behind in terms of such physical achievements. Having done this, we shall present estimates of financial cost of making up the backlog. This will enable us to aggregate the backlog in several physical items of the several sectors that we shall be examining. This is necessary operationally because practically all remedial action must begin with provision of funds. But there is no implication that provision of funds is all that is needed. This will have to be followed by appropriate programme and action. We do not spell them out because we think that this will be beyond our competence as a Committee.

3.33. After assessing the backlog sector by sector, we shall aggregate the backlog of each district and proceed to examine how the process of removing the backlog may be initiated within the present framework of Planning and Development in the State. This we shall examine in Chapter XVII. It may be possible to obtain additional central assistance for this purpose. There are indications in the Sixth Plan to this effect. We quote: "Central policies with respect to resource transfers will need to be suitably tailored to the benefit of backward regions and broadly in relation to the effort made by the States in this regard. The IATP formula introduced in 1979 and the doubling of the segment for backward States in the Gadgil Formula for allocation of Central assistance for State Plans illustrate the effort made in recent years to modify the distribution of resources in favour of the backward States." (para 7.84, p. 87). We hope that this orientation will continue in the Seventh Plan. But, in the same para, there is also a warning: "There are, however, obvious limits to the role of Central assistance in the promotion of backward areas and reduction of regional imbalances in development. Moreover, an increase in the flow of resources to the backward States does not necessarily imply that adequate provisions will be made for the backward regions." This is crucial. It calls for a commitment that not only any additional central assistance that may become available but the entire resources at the disposal of the State Government will be directed to reducing the disparities in development within the State. Even more important is a declaration of policy that the effort of the State Government in this direction will not depend upon and will not be limited to any additional central assistance forthcoming.

3.34. Hence, we shall take the total resources as given. We shall also not make any recommendations for reallocation of available funds between sectors. This is because the requirements of sectoral balance are equally important and must be determined at the Central and the State Government level. Moreover, we shall work within the framework of present policies and programmes in the several sectors. There is no implication that there is no room for improvement. In particular, there may

be room for modifying some of the policies and programmes to suit better the needs and circumstances of certain districts. Ideally, to remove general backwardness as distinct from specific backlog, we should prepare a development plan for each district in the real sense of the term and not a mere aggregation of schemes prepared at the State and Central level. We refrain from doing this because again we believe that this takes us beyond our competence as a Committee.

3.35. Working within a given total of development funds, its sectoral allocation, and given policies and programmes in the several sectors and focussing attention on the disparities and backlog, has the advantage that action can be initiated without delay to remove the backlog. It also implies a certain acceleration of the pace of development in the districts lagging behind and to that extent a certain slowing down of the pace of development in the districts which are already ahead. There appears reluctance to admit this implication. It is important that it is recognised and stated explicitly.

3.36. We shall carry our analysis in terms of districts as units because, as already mentioned, the readily available data do not permit us to go below the district and examine disparities at the sub-district level such as a taluka or a development block. However, we wish to remind that, in subjects in which the level of development is sufficiently widespread, it will be necessary to carry the analysis to the sub-district level, identify talukas or development blocks which are below the State average and focus attention on them. This is a logical corollary of the approach we are suggesting. Backwardness and under-development must be identified and attended to wherever they exist and not swept under the carpet of a district or a regional average.

3.37. Because of the past disappointments, the areas lagging behind expect us to give a time-bound programme for removing the present disparities. We are sorry we are not able to lay down such a time limit. In each sector, the time required to bring up the lagging areas to the State average will depend upon the sectoral allocation and the size of the backlog. What we insist is that, subject to some provision for completing on-going works or for natural growth which must unavoidably be made, the entire sectoral allocation shall be used to remove the backlog. But there is another and more important reason why we do not indicate any time limit. The concept of lifting the areas below the State average upto the State average is not a programme to be completed in given time, but a process which continues. As the areas below the average begin to be lifted to the present State average, the State average also rises and some areas, which until now were above the average, may fall below the new average. Hence, the process continues. Speaking of economic development, one often vaguely talks of raising the average. But the average may be raised either by lifting the top or by lifting the bottom. These are two alternative strategies of, or approaches to, development. The first is often chosen on grounds that it raises the average

faster. It may do so. But in the process, the distance between the top and the bottom increases to the point of becoming insufferable. Even in purely economic terms, existence of large disparities within an economy inevitably limits the possibilities of overall development and growth. The other alternative, lifting the bottom, may appear slow in raising the average, but the process continuously widens these possibilities by broadening the base of development and growth. The problem of regional disparities has been with us for far too long. In approaching it with this alternative strategy, namely development by lifting the bottom, we have a chance to make a new beginning.

CHAPTER IV

SOME INDICATORS OF ECONOMIC DEVELOPMENT

Per Capita Net Domestic Product:

4.1. A commonly used measure of the level of economic development of a country is its per capita Net Domestic Product. Net Domestic Product (NDP) provides the value of the sum total of annual economic activity performed within the borders of the country. The same divided by its population gives the per capita NDP. Estimates of the per capita NDP of India are annually computed and published. A continuous series is now available beginning with 1948-49. Similar estimates of the Net State Domestic Product (NSDP) are compiled and published for different States. A continuous series for Maharashtra is available beginning with 1960-61. Hence, one may want to compute similar estimates of Net Domestic Product for different districts and, on that basis, compare the rates of their economic growth over the last two decades as also the levels of their present development. We have already referred to the comments of the National Committee on the Development of Backward Areas on the use of these estimates. We may briefly quote them once again: "With regard to estimates of domestic product at district/block level, some rudimentary calculations are possible. However, the usefulness of such income estimates is open to question. The income generated in an area is not the same as the income accruing. At the block or district level the difference between these two concepts can be quite substantial. . . . Apart from this, there are also some difficulties in defining clearly the income generated within a district from activities like rail transport, power distribution, etc." (Report on General Issues, para 4.23). We agree with the NCDBA on this point. After careful examination of the data and methods available for estimating Domestic Product of districts, we have come to the conclusion that these estimates do not provide a satisfactory basis for comparing levels of development in different districts. We may briefly explain.

4.2. For computing the estimates of State Domestic Product of states, it is necessary to locate each economic activity occurring within the borders of the country as occurring within the borders of one or the other state. Economic activities covered by the Domestic Product may be broadly classified into two sectors: (A) Commodity Producing Sector, and (B) Non-commodity Producing Sector. The Commodity Producing Sector includes: (i) Agriculture, Animal Husbandry, and allied activities; (ii) Forestry; (iii) Fishing; (iv) Mining; (v) Manufacturing-Registered; (vi) Manufacturing - Unregistered; and (vii) Electricity, Gas & Water Supply. The Non-Commodity Producing Sector includes: (i) Construction; (ii) Transport, Storage & Communication; (iii) Trade, Hotels & Restaurants; (iv) Banking & Insurance; (v) Real Estate, Ownership of dwellings, &

Business services; (vi) Public Administration; and (vii) Other services including Education. Location of economic activities in the Commodity Producing Sector in one state or the other is relatively easy. However, serious problems arise in locating economic activities in the Non-Commodity Producing Sector to one State or the other when they are spread over the whole country as, for instance, is the case with transport and communication or banking and insurance. It is recognised that the estimates of State Domestic Product currently being made and published are subject to these limitations.

4.3. While estimating the Domestic Product of districts, these difficulties multiply. For instance, even in respect of the Commodity Producing Sector, it is difficult to allocate to different districts, the State Product originating in Electricity. In the Non-Commodity Producing Sector, it is difficult to allocate to different districts the State Product originating in Construction and only a part originating in Banking and Insurance can be so allocated. In an Annexure to this Chapter, we give a technical note on the estimation of the Net Domestic Product of districts together with estimates of District Domestic Product for the year 1978-79 so arrived at. We do not intend to use these estimates for reasons explained in the following.

4.4. In Table 4.1, we give sectorwise Net State Domestic Product for 1978-79 and what part of it could be estimated districtwise and what part could not be so estimated. It will be noticed that 87.25 per cent of the State Domestic Product could be estimated districtwise while the balance of 12.75 per cent remains so unestimated. The unestimated portions are mainly from Construction, Electricity, Railway, Air Transport, Communications, and Banking & Insurance.

4.5. The above coverage, 87.25 per cent of the State Domestic Product, is not entirely unsatisfactory. The more unsatisfactory aspect of these estimates is that, for a number of sectors, direct production or income data are not available and hence, as explained in the technical note in the Annexure, the State Product originating in these sectors is allocated to different districts on the basis of some indicators, such as number of workers engaged in the activity. In Table 4.2, we show the State Domestic Product for 1978-79 originating in different sectors so allocate to different districts on the basis of indicators. It will be seen that the part of the State Domestic Product so allocated amounts to Rs. 4,070 crore in 1978-79. Trade, Unregistered Manufacturing, and Other Services are the major sectors where, in the absence of direct districtwise data on product or income, the State Product has to be so allocated.

4.6. Thus, out of the State Domestic Product in 1978-79 estimated at Rs.10,632 crore, a part amounting to Rs.1,356 crore (12.75 per cent) could not at all be estimated districtwise; and another part amounting to Rs.4,070 crore (38.28 per cent) is

TABLE 4.1

SECTORWISE NET STATE DOMESTIC PRODUCT - 1978-79
DISTRICTWISE ESTIMATED, ALLOCATED, & NOT-ESTIMATED COMPONENTS
 (Rs. Crore)

Sector	Total NSDP	Estimated district- wise	Of which allocated on the basis of indicators	Not-estimated districtwise
1	2	3	4	5
1. Agriculture & Allied Activities	2,771	2,771	63*	-
2. Forestry & logging	117	46	-	71
3. Fishing	82	82	-	-
4. Mining & Quarrying	25	25	-	-
5. Manufacturing - Registered	2,263	2,241	-	22
6. Manufacturing - Unregistered	638	638	638	-
7. Construction	561	-	-	561
8. Electricity	211	-	-	211
9. Gas & Water Supply	19	19	18	-
10. Railways	107	74	74	33
11. Air Transport	50	-	-	50
12. Transport by other means & storage	338	328	225	10
13. Communications	142	82	82	60
14. Trade, Hotels and Restaurants	1,509	1,509	1,509	-
15. Banking and Insurance	650	312	312	338
16. Real estate and ownership of dwellings	187	187	187	-
17. Business services	74	74	74	-
18. Public Administration	283	283	283	-
19. Other Services	605	605	605	-
T O T A L	10,632 (100.00)	9,276 (87.25)	4,070 (38.28)	1,356 (12.75)

* Comprise (i) Operation of Government irrigation system, (ii) Veterinary Services, (iii) Production of honey, wax, cocoons, raw silk, etc., and (iv) Hunting & trapping.

allocated to districts on the basis of some indicators. Of the two components, the latter is much larger and also more undesirable. When a part of State Domestic Product is not allocated to the districts, the district disparities are determined by the part which is allocated. But when a part is allocated on the basis of indicators, it moderates the district disparities; this is because, allocation on the basis of indicators, such as number of workers, tends to equalise the per capita Domestic Product of different districts, and thus understate the disparities. It constitutes 38.28 per cent of the State Domestic Product. If we leave it out along with unallocated component which constitutes 12.75 per cent of the State Domestic Product, the coverage of the estimates of Domestic Product of districts is reduced to less than 50 per cent of the State Domestic Product. It would be wrong to compute such partial estimates and call them District Domestic Product. For these reasons, we shall not use them. They are given in the Annexure merely for reference.

4.7. But we shall make one exception. We shall compare our estimates of regional per capita domestic product with the earliest such estimates available. In its Memorandum submitted to the Third Finance Commission (1961), the Government of Maharashtra has presented certain estimates of the State Income for the year 1955-56 (para 2.33, p. 37). Our interest in them lies in the fact that estimates not only of the income of the whole State but also of the three regions, namely, Western Maharashtra, Vidarbha and Marathwada are given. We could not verify the sources of data and the methodology of computation. These could not be better than what are now available to us. Nevertheless, inspite of the limitations of both those and our estimates, we thought a comparison of relative positions of the regions over a period of 25 years would be of some interest. The estimates of State income then presented are as under:

State Income of Maharashtra : 1955-56

<u>Region</u>	<u>Total income</u> (Rs. crore)	<u>Per capita income</u> (Rs.)
Western Maharashtra	727.6	345
Vidarbha	182.2	231
Marathwada	94.4	174
<u>Maharashtra</u>	1,004.2	292

4.8. The purpose of this presentation was not so much to compare the per capita incomes of the three regions but to show that, if Greater Bombay was excluded, the per capita income of Maharashtra was almost equal to the national average (Rs.260). We quote: "The Socio-Economic Survey of City of Bombay, conducted by the Department of Economics, University of Bombay, took out a

sample of 13,000 tenements. Information regarding household and per capita income and expenditure were also collected in this survey. The per capita income worked out to Rs.53 more or less for the same year for which the State income figures have been provided above. The population of Greater Bombay in the same year could be put at about 3.5 million. It is true that global totals derived from the Bombay City survey data would over-estimate income in the city as the sample was based on tenements. However, even assuming that the per capita income would be around Rs.50 per month or Rs.600 per year, the total income accruing in this area would be around Rs.210 crores. If we deduct this figure from the State income of Maharashtra, we find that the per capita income for the rest of areas would be around Rs.257 per annum, i.e. almost equal to the national average per capita income for 1955-56" (p.37).

4.9. Without necessarily accepting the data and the method used, we may adopt the same and estimate the per capita income of Western Maharashtra excluding Greater Bombay. This comes to Rs.294. Thus, on the basis of the data and method used, it seems that in 1955-56, taking the per capita income of Maharashtra, excluding Greater Bombay to be 100, the per capita income of Western Maharashtra was 114.40, of Vidarbha 89.88 and of Marathwada 67.70.

4.10. As per our estimates of domestic product of the districts in 1978-79 given in the Annexure, the per capita domestic product of Maharashtra excluding Greater Bombay is Rs.1,278; of Western Maharashtra Rs.1,360; of Vidarbha Rs.1,082; and of Marathwada Rs.1,036. Hence, taking the per capita domestic product of the State, excluding Greater Bombay, to be 100, the indices are: Western Maharashtra 106.42; Vidarbha 84.66; and Marathwada 81.06. Thus, over the period of 25 years, the relative positions of Western Maharashtra and Vidarbha have declined; and of Marathwada improved considerably. Of course, the fact remains that even as judged by the limited estimates, the per capita domestic product of Marathwada is almost 20 per cent below that of the State excluding Greater Bombay.

Per Capita Consumer Expenditure:

4.11. In the absence of, or as a substitute to, a comprehensive measure of per capita product or income, a commonly used measure of economic development of a country and more particularly of the level of living of its people is per capita consumer expenditure. The National Sample Survey Organization (NSSO) of Government of India has been conducting, since 1950-51, nation-wide consumer expenditure surveys. Since the formation of Maharashtra State, data for six years are available : 1961-62, 1963-64, 1971-72, 1972-73, 1973-74 and 1977-78. For 1961-62, data are available for the State as a whole, separately for rural and urban areas, but not separately for districts or regions. In 1963-64, for the purpose of the survey, the State was divided into four regions as under:

1. Coastal: Thane, Raigad, Ratnagiri, Kolhapur, Greater Bombay.
2. Inland: Satara, Sangli, Solapur, Pune, Ahmednagar, Nashik, Jalgaon, Dhule.
3. Inland Central: Aurangabad, Beed, Parbhani, Nanded, Osmanabad.
4. Inland Eastern: Akola, Amravati, Buldhana, Yavatmal, Wardha, Nagpur, Chandrapur, Bhandara.

It will be noticed that the Inland Central region corresponds to Marathwada and Inland Eastern region corresponds to Vidarbha. The Coastal region corresponds to Konkan and Inland region to Western Maharashtra except that Kolhapur district is included in Coastal and not in Inland region.

4.12. In 1971-72, the NSSO revised the regions and Maharashtra was divided into six regions as under:

1. Coastal: Greater Bombay, Thane, Raigad, Ratnagiri.
2. Inland Western: Ahmednagar, Pune, Solapur, Satara, Sangli, Kolhapur.
3. Inland Northern: Jalgaon, Dhule, Nashik.
4. Inland Central: Aurangabad, Beed, Parbhani, Nanded, Osmanabad.
5. Inland Eastern: Nagpur, Wardha, Amravati, Akola, Yavatmal, Buldhana.
6. Eastern: Bhandara, Chandrapur.

It will be noticed that the Coastal region now corresponds to Konkan; Inland Western corresponds to Pune Division except for the inclusion of Ahmednagar; Inland Northern corresponds to Nashik Division except for the exclusion of Ahmednagar; Inland Central corresponds to Marathwada; Inland Eastern and Eastern together constitute Vidarbha but the division between the two does not correspond to Nagpur and Amravati Divisions.

4.13. Data are available from Central Sample and State Sample. We shall use the State Sample as regionwise results are available only from the State Sample. Further, though the regionwise data are available for 1963-64, 1971-72, 1972-73, 1973-74, and 1977-78, we shall exclude 1972-73 and 1973-74 as these years were affected by scarcity conditions. In Table 4.2 we present the estimates of monthly per capita consumer expenditure for the years 1963-64, 1971-72, and 1977-78. All estimates are at

current prices, that is prices current in respective years. We also show the regional averages as percentages of the State (excluding Greater Bombay) average as 100.

Table 4.2

Monthly per capita Consumer Expenditure in Maharashtra

<u>Region</u>	<u>Rs. at current prices</u>			<u>Index with Maharashtra</u> <u>(Excl. Gr. Bombay) = 100</u>		
	<u>1963-</u> <u>64</u>	<u>1971-</u> <u>72</u>	<u>1977-</u> <u>78</u>	<u>1963-</u> <u>64</u>	<u>1971-</u> <u>72</u>	<u>1977-</u> <u>78</u>
Greater Bombay	60.88	85.74	151.32	261.7	216.2	223.9
Coastal (excl. Greater Bombay)	24.53	39.91	81.54	105.5	100.6	120.7
Inland Western))		43.80	76.83		110.4	113.7
Inland Northern)	24.55	36.83	62.07	105.5	92.9	91.8
Inland Central	22.19	38.29	61.35	95.4	96.5	90.8
Inland Eastern))		37.71	58.07		95.1	85.9
Eastern)	21.34	36.49	56.31	91.7	92.0	83.3
<u>Maharashtra State</u>	<u>26.21</u>	<u>43.93</u>	<u>77.94</u>	<u>112.7</u>	<u>110.8</u>	<u>115.3</u>
<u>Maharashtra State</u> <u>(excl. Gr. Bombay)</u>	<u>23.26</u>	<u>39.66</u>	<u>67.58</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

4.14. Thus, the monthly per capita consumer expenditure in the State increased from Rs.26.21 in 1963-64, to Rs.43.93 in 1971-72, to Rs.77.94 in 1977-78. Much of this increase is not real but is due to the increase in prices during this period. To examine real increase in per capita consumer expenditure, the above data at current prices will have to be deflated by an appropriate index number of consumer prices. We do not do this as an appropriate index is not readily available. Besides, our main interest lies in the relative positions of the different regions. For this purpose, in the last three columns above, the regional averages are expressed as percentages of the State (excluding Greater Bombay) average.

4.15. To begin with, we may note that the per capita consumer expenditure in Greater Bombay is far above, in fact more than twice, that of the rest of the State. But, over the years, the difference has considerably narrowed; the index for Greater Bombay was 261.7 in 1963-64; it came down to 216.4 in 1971-72; but then slightly increased to 223.9 in 1977-78.

4.16. Turning to the other regions, it will be noticed that the Coastal and Inland regions, constituting Konkan and Western

Maharashtra, were above the State average (excluding Greater Bombay) in 1963-64 and remained so in 1977-78. In fact, over the period, both the regions seem to have improved their relative positions. This is clearly true of Konkan. About Western Maharashtra, at least part of the improvement in 1971-72 over 1963-64 is because of separation of the relatively poor Inland Northern region from the Inland Western region. If we compare the positions in 1971-72 and 1977-78, the relative positions of Konkan and Western Maharashtra compared to the rest of the State have improved, much more so of Konkan than of Western Maharashtra. The relative positions of all other regions have deteriorated; of Inland Northern (Jalgaon, Dhule, Nashik) by 1.1 percentage points; of Marathwada by 5.7 percentage points; and of Vidarbha by about 9.0 percentage points. These relative positions, and movements in them over the period, reflect the disparities in the development of these regions.

Per Capita Net Domestic Product from Agriculture:

4.17. Returning to the districtwise estimates of per capita domestic product, as explained above, only about half of the State Domestic Product in 1978-79 could be attributed to different districts on the basis of direct production or income data. This comes largely from two major sectors, namely (a) Agriculture and allied activities constituting 26.06 per cent of the SDP and (b) Registered Manufacturing constituting 21.28 per cent of the SDP. Between the two, the district estimates of product from Registered Manufacturing are based on direct production data. This is not quite true of Agriculture and allied activities. The technical note in the Annexure explains the qualifications clearly. Here we may mention them briefly.

4.18. The Agriculture and Allied Activities Sector includes Agriculture (proper), Animal Husbandry, and Allied Activities. Gross Output of Agriculture and Animal Husbandry is first estimated. This may be broken up into three parts: (i) Major crops accounting for about 57 per cent of the Gross Output; (ii) Minor crops accounting for about 24 per cent of the Gross Output; and (iii) Animal Husbandry accounting for 19 per cent of the Gross Output. Of this, the district estimates of (i) are based on districtwise production data; of (ii) are based on district data on acreage but yield data at the State level; of (iii) are based on district data on animal numbers and productivity data at the divisional or State level.

4.19. To derive the Net Output of Agriculture and Animal Husbandry, one must deduct the inputs from the Gross Output. Except for fertilizers, districtwise data on inputs are not available. Hence, they are estimated at the State level and allocated to districts on the basis of some physical indicators which are unlikely to moderate the district disparities.

4.20. The Allied Activities included in this sector are (i) operations of government irrigation system and veterinary services, and (ii) activities relating to production of honey and

wax, cocoons and raw silk, etc., and hunting and trapping. The product or income from these activities is estimated at the State level and allocated to districts on the basis of relevant indicators such as area irrigated under Government canals and number of animals; only in a few cases the allocation is done on the basis of working force. The net output from these allied activities constitutes only 2.28 per cent of the net output of the sector Agriculture and Allied Activities.

4.21. Hence, in the following, we shall use district estimates of per capita net domestic product of (a) Agriculture and Allied Activities, and (b) Registered Manufacturing as indicators of (a) agricultural resources (not necessarily development) and (b) industrial development respectively. The relevant data for 1978-79 are given in Table 4.3.

4.22. The per capita domestic product from Agriculture and Allied activities for the State, excluding Greater Bombay, is Rs.519.47 (col.3). Taking this to be 100, the indices for the districts and regions are shown in col.4. Marathwada and Western Maharashtra are above the State average, the indices being 118.02 and 112.72, respectively. Vidarbha and Konkan are below the State average, the indices being 87.06 and 58.13 respectively. Districtwise, the index ranges from 154.49 for Jalgaon to 37.23 for Thane. In the following, we list the districts in descending order of the index.

Jalgaon	154.49	Solapur	99.24
Osmanabad	134.13	Nashik	92.85
Sangli	134.06	Pune	91.91
Ahmednagar	128.80	Dhule	90.80
Parbhani	124.42	Akola	90.33
Wardha	123.12	Ratnagiri	81.79
Kolhapur	122.39	Chandrapur	73.70
Satara	118.29	Bhandara	72.14
Beed	116.16	Raigad	71.49
Buldhana	115.84	Nagpur	54.89
Aurangabad	111.57	Thane	37.23
Yavatmal	103.48		
Nanded	101.44		
Amravati	101.44		

We should note that the much higher index of Osmanabad than of Kolhapur; or the higher index of Buldhana than of Nashik emphasises the fact that per capita domestic product from agriculture is not necessarily an indicator of agricultural development, but often only of per capita larger, but undeveloped, agricultural resources such as land. Similarly, the very low index of Nagpur and Thane is because of large urban populations in these districts resulting in the per capita agricultural resources being small.

Per capita Net Domestic Product from Registered Manufacturing:

4.23. The per capita domestic product from Registered

Table 4.3

Net Domestic Product from (1) Agriculture and Allied Activities
and (2) Registered Manufacturing, 1978-79

District	Agriculture and Allied Activities			Registered Manufacturing		
	Value Added 1978-79 (Rs. Lakh)	Per Capita (Rs.)	Index*	Value Added 1978-79 (Rs. Lakh)	Per Capita (Rs.)	Index*
1	2	3	4	5	6	7
1. Greater Bombay	10,514	135.68	-	126,474	1,632.13	-
2. Thane	6,076	193.38	37.23	45,308	1,442.01	757.92
3. Raigad	5,199	371.36	71.49	4,270	305.00	160.31
4. Ratnagiri	8,430	424.90	81.79	175	8.82	4.64
<u>KONKAN</u> <u>(excl. G.B)</u>	<u>19,705</u>	<u>301.95</u>	<u>58.13</u>	<u>49,753</u>	<u>762.38</u>	<u>400.70</u>
5. Nashik	13,558	482.32	92.85	3,098	110.21	57.93
6. Dhule	9,108	471.67	90.80	739	38.27	20.11
7. Jalgaon	19,814	802.51	154.49	1,639	66.38	34.89
8. Ahmednagar	17,068	669.07	128.80	2,448	95.96	50.44
9. Pune	18,725	477.43	91.91	21,795	555.71	292.08
10. Satara	11,798	614.48	118.29	1,331	69.32	36.43
11. Sangli	11,971	696.39	134.06	1,812	105.41	55.40
12. Solapur	12,666	515.51	99.24	2,496	101.59	53.40
13. Kolhapur	14,947	635.77	122.39	2,725	115.91	60.92
<u>WESTERN MAHARASHTRA</u>	<u>129,655</u>	<u>585.55</u>	<u>112.72</u>	<u>38,083</u>	<u>172.08</u>	<u>90.44</u>
14. Aurangabad	13,319	579.59	111.57	1,228	53.44	28.09
15. Parbhani	11,110	646.31	124.42	62	3.61	1.90
16. Beed	8,448	603.43	116.16	36	2.57	1.35
17. Nanded	8,684	526.94	101.44	536	32.52	17.09
18. Osmanabad	14,611	696.76	134.13	244	11.64	6.12
<u>MARATHWADA</u>	<u>56,172</u>	<u>613.10</u>	<u>118.02</u>	<u>2,106</u>	<u>22.99</u>	<u>12.08</u>
19. Buldhana	8,527	601.76	115.84	151	10.66	5.60
20. Akola	8,066	469.23	90.33	998	58.06	30.52
21. Amravati	9,211	526.95	101.44	504	28.83	15.15
22. Yavatmal	8,794	537.53	103.48	273	16.69	8.77
23. Wardha	5,590	639.59	123.12	621	71.05	37.34
24. Nagpur	6,937	285.12	54.89	3,077	126.47	66.47
25. Bhandara	6,487	374.75	72.14	498	28.77	15.12
26. Chandrapur	7,416	382.86	73.70	1,566	80.85	42.49
<u>VIDARBHA</u>	<u>61,028</u>	<u>452.23</u>	<u>87.06</u>	<u>7,688</u>	<u>56.97</u>	<u>29.94</u>
<u>MAHARASHTRA STATE</u>	<u>277,074</u>	<u>469.12</u>		<u>224,104</u>	<u>379.43</u>	
<u>(excl. G.B.)</u>	<u>266,560</u>	<u>519.47</u>	<u>100.00</u>	<u>97,630</u>	<u>190.26</u>	<u>100.00</u>

* State (excluding Greater Bombay) = 100

manufacturing for the whole State is Rs.379.43; for the State excluding Greater Bombay, it is Rs.190.26 (Col.6). Taking this to be 100, the indices for the districts and regions are shown in col.7. The disparities are glaring. Konkan is way above (400.70) the State Average and Marathwada is way below (12.08) the State Average. The indices for Western Maharashtra and Vidarbha are 90.44 and 29.94 respectively. It is these glaring disparities in industrial development which are at the bottom of prevailing regional discontent.

4.24. If we examine the situation districtwise only three districts are above the State Average. They are: Thane, Pune and Raigad; their indices are 757.92, 292.08 and 160.31 respectively. All other districts are below the State Average. They may be grouped as follows. In bracket are shown their indices:

Nagpur (66.47), Kolhapur (60.92), Nashik (57.93), Sangli (55.40), Solapur (53.40) and Ahmednagar (50.44);

Chandrapur (42.49), Wardha (37.34), Satara (36.43), Jalgaon (34.89), Akola (30.52) and Aurangabad (28.09);

Dhule (20.11), Nanded (17.09), Bhandara (15.12) and Amravati (15.15);

Yavatmal (8.77), Osmanabad (6.12), Buldhana (5.60), Ratnagiri (4.64), Parbhani (1.90) and Beed (1.35).

Proportion of Urban Population:

4.25. Economic development, particularly industrial development, is usually associated with two easily recognisable phenomena. One is an increase in the proportion of population living in urban areas. The other is an increase in the proportion of workers engaged in activities other than agriculture, household industry and other traditional occupations. These sets of figures are available from the Population Censuses. We propose to make use of them and assess the relative development of different districts over the two decades 1961-81.

4.26. In Table 4.4 is given the percentage of urban population in different districts in 1961 and 1981. It will be noticed that the percentage of urban population in the State, excluding Greater Bombay, was 19.80 in 1961 and 25.21 in 1981. We may first examine the position in 1981. In the matter of percentage of urban population, Konkan (26.87), Western Maharashtra (27.03) and Vidarbha (26.10), all were above the State Average (25.21). Only Marathwada (18.31) lay below the State Average. Examining the position districtwise, the following six districts were above the State Average:

Table 4.4

Percentage of Urban Population to Total Population

District	1961	1981	Increase = Col.3 - Col.2
1	2	3	4
1. Greater Bombay	100.00	100.00	-
2. Thane	30.21	44.34	14.13
3. Raigad	10.08	14.12	4.04
4. Ratnagiri	8.09	8.10	0.01
<u>KONKAN</u>			
<u>(excl. G.B)</u>	<u>16.61</u>	<u>26.87</u>	<u>10.26</u>
5. Nashik	25.60	31.02	5.42
6. Dhule	15.97	19.52	3.55
7. Jalgaon	22.50	25.14	2.64
8. Ahmednagar	10.55	12.97	2.42
9. Pune	38.16	47.33	9.17
10. Satara	11.08	13.04	1.96
11. Sangli	15.64	21.52	5.88
12. Solapur	27.94	29.40	1.46
13. Kolhapur	19.28	24.82	5.54
<u>WESTERN MAHARASHTRA</u>	<u>22.04</u>	<u>27.03</u>	<u>4.99</u>
14. Aurangabad	14.14	22.09	7.85
15. Parbhani	13.82	18.74	4.92
16. Beed	9.85	15.46	5.61
17. Nanded	14.44	18.74	4.30
18. Osmanabad	10.58	15.39	4.81
<u>MARATHWADA</u>	<u>12.63</u>	<u>18.31</u>	<u>5.68</u>
19. Buldhana	16.56	18.49	1.93
20. Akola	22.10	24.89	2.79
21. Amravati	26.14	29.25	3.11
22. Yavatmal	12.61	15.09	2.48
23. Wardha	23.65	24.98	1.33
24. Nagpur	52.07	56.75	4.68
25. Bhandara	10.74	13.10	2.36
26. Chandrapur	7.73	12.73	5.00
<u>VIDARBHA</u>	<u>22.40</u>	<u>26.10</u>	<u>3.70</u>
<u>MAHARASHTRA STATE</u>	<u>28.22</u>	<u>35.03</u>	<u>6.81</u>
<u>(excl. G.B.)</u>	<u>19.80</u>	<u>25.21</u>	<u>5.41</u>

<u>District</u>	<u>Per cent Urban Population 1981</u>
Nagpur	56.75
Pune	47.33
Thane	44.34
Nashik	31.02
Solapur	29.40
Amravati	29.25

4.27. In six other districts the percentage of urban population in 1981 was below the State Average in 1981 (25.21) but above the State Average in 1961 (19.80). These were:

<u>District</u>	<u>Per cent Urban Population 1981</u>
Jalgaon	25.14
Wardha	24.98
Akola	24.89
Kolhapur	24.82
Aurangabad	22.09
Sangli	21.52

4.28. In the remaining 13 districts, the percentage of urban population in 1981 was not only below the State Average in 1981 but even below the State Average in 1961 (19.80). These are listed in descending order below:

<u>District</u>	<u>Per cent Urban Population 1981</u>	<u>District</u>	<u>Per cent Urban Population 1981</u>
Dhule	19.52	Raigad	14.12
Parbhani	18.74	Bhandara	13.10
Nanded	18.74	Satara	13.04
Buldhana	18.49	Ahmednagar	12.97
Beed	15.46	Chandrapur	12.73
Osmanabad	15.39	Ratnagiri	8.10
Yavatmal	15.09		

We may note that among the six districts with the lowest percentage urban population, Raigad and Ratnagiri districts are from Konkan, Satara and Ahmednagar are from Western Maharashtra and Bhandara and Chandrapur are from Vidarbha. Districts from Marathwada do not appear in this list; but they appear predominantly in the next group of seven districts shown in the left column above.

4.29. We may now compare the relative development of the several districts over the two decades as judged by the increase in the percentage of their urban population. As mentioned earlier, the percentage of urban population in the State, excluding Greater Bombay, was 19.80 in 1961 and 25.21 in 1981;

that is to say, it increased by 5.41 percentage points. In seven districts, this increase was more than the State Average (5.41). These are listed below:

<u>District</u>	<u>Increase in Per cent Urban Population : 1961-81</u> (Percentage points)
Thane	14.13
Pune	9.17
Aurangabad	7.85
Sangli	5.88
Beed	5.61
Kolhapur	5.54
Nashik	5.42

4.30. In the remaining 18 districts, the increase in the percentage of urban population was less than the State Average (5.41). These are listed below in descending order:

<u>District</u>	<u>Increase in Per cent Urban Population 1961-81</u> (Percentage points)	<u>District</u>	<u>Increase in Per cent Urban Popu- lation: 1961-81</u> (Percentage points)
Chandrapur	5.00	Jalgaon	2.64
Parbhani	4.92	Yavatmal	2.48
Osmanabad	4.81	Ahmednagar	2.42
Nagpur	4.68	Bhandara	2.36
Nanded	4.30	Satara	1.96
Raigad	4.04	Buldhana	1.93
Dhule	3.55	Solapur	1.46
Amravati	3.11	Wardha	1.33
Akola	2.79	Ratnagiri	0.01

Proportion of Workers in Non-traditional Occupations:

4.31. We may now turn to the other indicator of development, namely, percentage of workers engaged in activities other than agriculture and such occupations as mining, quarrying, livestock, forestry, fishery, hunting, plantations, orchards, etc. The first set of data coming from the 1981 Census classifies the workers into four classes: (1) Cultivators, (2) Agricultural labour, (3) Workers in Household Industry, and (4) All other workers. Our interest lies in workers in class (4). To obtain comparable figures from the 1961 Census, we deduct from all workers the following : cultivators, agricultural labour, workers in household industry, and in mining, quarrying, livestock, forestry, fishing, hunting, plantations, orchards, and allied activities. Finally, as the coverage and classification of women workers in the Censuses is often unsatisfactory, we consider only the male workers. In Table 4.5 are given the relevant data. It will be noticed that in the whole State, excluding Greater Bombay, the percentage of male workers engaged in relevant activities was 23.9 in 1961 and it increased to 32.2 in 1981.

Table 4.5

Percentage of Male Workers Engaged in Activities other than Agriculture, Household Industry and Other Traditional Occupations

District	1961	1981	Col.3 - Col.2
1	2	3	4
1.Greater Bombay	97.2	94.9	2.3
2.Thane	39.9	59.6	19.7
3.Raigad	15.1	27.2	12.1
4.Ratnagiri	21.8	29.5	7.7
<u>KONKAN</u>			
(excl. G.B.)	26.8	43.5	16.7
5.Nashik	29.0	36.1	7.1
6.Dhule	18.1	22.9	4.8
7.Jalgaon	23.4	28.6	5.2
8.Ahmednagar	20.0	27.5	7.5
9.Pune	44.0	56.3	12.3
10.Satara	22.9	30.8	7.9
11.Sangli	19.0	30.5	11.5
12.Solapur	27.0	35.6	8.6
13.Kolhapur	22.5	35.8	13.3
<u>WESTERN MAHARASHTRA</u>	26.5	35.7	9.2
14.Aurangabad	17.0	25.5	8.5
15.Parbhani	17.2	19.2	2.0
16.Beed	13.1	18.4	5.3
17.Nanded	17.5	20.9	3.4
18.Osmanabad	13.1	17.4	4.3
<u>MARATHWADA</u>	15.2	20.1	4.9
19.Buldhana	18.2	20.4	2.2
20.Akola	22.8	25.6	2.8
21.Amravati	23.4	26.1	2.7
22.Yavatmal	16.1	18.9	2.8
23.Wardha	25.6	26.4	0.8
24.Nagpur	43.1	51.6	8.5
25.Bhandara	16.9	19.8	2.9
26.Chandrapur	14.1	20.1	6.0
<u>VIDARBHA</u>	23.1	27.5	4.4
<u>MAHARASHTRA STATE</u>	33.4	41.2	7.8
<u>(excl. G.B.)</u>	23.9	32.2	8.3

4.32. We may first examine the position in 1981. Among the regions only in Konkan (43.5) and Western Maharashtra (35.7), the percentage of male workers in relevant activities was above the State Average (32.2); in Vidarbha (27.5) and Marathwada (20.1), it was lower. Districtwise, the percentage was above the State Average in six districts. These are listed below:

<u>District</u>	<u>Percentage of male workers engaged in relevant activities : 1981</u>
Thane	59.6
Pune	56.3
Nagpur	51.6
Nashik	36.1
Kolhapur	35.8
Solapur	35.6

4.33. In the following ten districts, the percentage of relevant workers in 1981 was below the State Average in 1981 (32.2), but was above the State Average in 1961 (23.9). These are listed below:

<u>District</u>	<u>Percentage of male workers engaged in relevant activities : 1981</u>
Satara	30.8
Sangli	30.5
Ratnagiri	29.5
Jalgaon	28.6
Ahmednagar	27.5
Raigad	27.2
Wardha	26.4
Amravati	26.1
Akola	25.6
Aurangabad	25.5

4.34. In the remaining nine districts, the percentage of relevant workers in 1981 was not only below the State Average in 1981 (32.2), but even below the State Average in 1961 (23.9). These are listed below:

<u>District</u>	<u>Percentage of male workers engaged in relevant activities : 1981</u>
Dhule	22.9
Nanded	20.9
Buldhana	20.4
Chandrapur	20.1
Bhandara	19.8
Parbhani	19.2
Yavatmal	18.9
Beed	18.4
Osmanabad	17.4

4.35. We may now compare the relative development of the several districts over the two decades as judged by the increase in the percentage of male workers engaged in relevant activities. As mentioned earlier, this percentage in the State, excluding

Greater Bombay, was 23.9 in 1961 and 32.2 in 1981; it increased by 8.3 percentage points over the two decades. In 8 districts, this increase was more than the State Average. These are listed below:

<u>District</u>	<u>Increase in percentage of male workers engaged in relevant activities, 1961-81 (Percentage points)</u>
Thane	19.7
Kolhapur	13.3
Pune	12.3
Sangli	11.5
Raigad	12.1
Solapur	8.6
Aurangabad	8.5
Nagpur	8.5

It may be said that it is only in the first five districts listed above that the development as judged by the present indicator is above the State Average; in the last three districts, namely, Solapur, Aurangabad and Nagpur the development is indeed not more than the State Average. Among the first five districts, Thane, Pune and Raigad have the advantage of the vicinity of Bombay. In Sangli and Kolhapur, the development appears to be indigenous.

4.36. In the remaining 17 districts the development as judged by the present indicator was below the State Average. These are listed below in descending order. It may be noted that all the bottom nine districts in this list are from Vidarbha and Marathwada.

<u>District</u>	<u>Indicator</u>	<u>District</u>	<u>Indicator</u>
Satara	7.9	Osmanabad	4.3
Ratnagiri	7.7	Nanded	3.4
Ahmednagar	7.5	Bhandara	2.9
Nashik	7.1	Yavatmal	2.8
Chandrapur	6.0	Akola	2.8
Beed	5.3	Amravati	2.7
Jalgaon	5.2	Buldhana	2.2
Dhule	4.8	Parbhani	2.0
		Wardha	0.8

Consumption of Electricity:

4.37. Consumption of electricity is often used as an indicator of economic development, particularly of industrial development. In Table 4.6, we give the relevant data for two years, 1973-74 (Col.2) and 1981-82 (Col.3). In Col.4 is given the difference between the two, being the increase in electricity consumption between 1973-74 and 1981-82. In Cols. 5, 6 and 7, these are

expressed as percentages of the State total. It will be seen that, in 1973-74, 38.69 per cent of the electricity consumption in the State was in Greater Bombay and another 21.38 per cent in Thane district; the two together accounted for 60.07 per cent of the total consumption. In 1981-82, their share was somewhat smaller: 36.76 per cent of Greater Bombay and 17.31 per cent of Thane, the two accounting for 54.07 per cent of total consumption. Even in the increase in consumption between 1973-74 and 1981-82, Greater Bombay and Thane accounted for 48.93 per cent of the total.

4.38. The drop in the share of Greater Bombay and Thane by 6.0 percentage points between 1973-74 and 1981-82 (from 60.07 per cent to 54.07 per cent) was picked up mainly by Western Maharashtra and Marathwada, 3.50 percentage points by Western Maharashtra and 2.12 percentage points by Marathwada. The share of Vidarbha actually declined from 12.67 per cent in 1973-74 to 11.52 per cent in 1981-82.

4.39. We may examine the districtwise consumption of electricity in 1981-82 in somewhat greater detail. We shall do this on a per capita basis and separately for consumption for industry and for agriculture. Relevant data are given in Table 4.7. In Cols. 2, 3 and 4 are given per capita consumption of electricity, total, for industry, and for agriculture. In Cols. 5, 6 and 7, these are expressed as indices with average of the State (excluding Greater Bombay) as 100.

4.40. The per capita average consumption of electricity in the State (excluding Greater Bombay) is 173.31 kwh, of which 108.52 kwh is for industry, 34.55 kwh for agriculture and the rest for domestic, commercial and other purposes. Of the per capita consumption of electricity for agriculture, 4.28 Kwh is metered and 30.27 Kwh is unmetered; the estimate of unmetered consumption is based on the installed horse-power of pumps. Taking the State per capita consumption as 100, the consumption in Konkan is 261.23, in Western Maharashtra 93.63, in Vidarbha 69.28, and in Marathwada 45.53. The disparities are even greater in per capita consumption of electricity for industry. Taking the State average as 100, it is 373.01 in Konkan, 71.00 in Vidarbha, 70.08 in Western Maharashtra, and only 20.11 in Marathwada. It is only in per capita consumption of electricity for agriculture, that Marathwada, along with Western Maharashtra, stands above the State average. Taking the latter to be 100, the consumption in Western Maharashtra is 151.64, in Marathwada, 127.03, in Vidarbha 41.27 and in Konkan only 8.57.

4.41. In the following districts, the per capita consumption of electricity is above the State average: Thane (445.47), Raigad (190.92), Pune (151.92), Kolhapur (128.86), Nagpur (126.21) and Chandrapur (114.55). In the following districts, the per capita consumption of electricity for industry is above the State Average : Thane (642.32), Raigad (277.65), Pune (155.81), Chandrapur (135.73), Nagpur (122.83) and Kolhapur (115.66). It will be noticed that they are the same districts with a slightly

Table 4.6

Consumption of Electricity, 1973-74 and 1981-82

District	1973-74		1981-82		Col.(3)	Index with State = 100		
	(M K W H)				-	Col.(2)	Col.(3)	Col.(4)
1	2	3	4	5	6	7	8	9
1. Greater Bombay	2,692.566	5,493.585	2,801.019	38.69	36.76	35.13		
2. Thane	1,487.766	2,587.552	1,099.786	21.38	17.31	13.80		
3. Raigad	198.618	491.831	293.213	2.85	3.29	3.68		
4. Ratnagiri	21.263	66.806	45.543	0.31	0.45	0.56		
<u>KONKAN</u>								
(excl. G.B.)	<u>1,707.647</u>	<u>3,146.189</u>	<u>1,438.542</u>	<u>24.54</u>	<u>21.05</u>	<u>18.04</u>		
5. Nashik	190.626	394.202	203.576	2.74	2.64	2.55		
6. Dhule	50.197	177.227	127.030	0.72	1.19	1.59		
7. Jalgaon	175.941	414.200	238.259	2.53	2.77	2.99		
8. Ahmednagar	115.261	391.228	275.967	1.66	2.62	3.46		
9. Pune	491.701	1,096.453	604.752	7.07	7.34	7.59		
10. Satara	64.459	231.460	167.001	0.93	1.55	2.09		
11. Sangli	89.340	224.080	137.740	1.28	1.50	1.73		
12. Solapur	139.347	328.081	188.734	2.00	2.19	2.37		
13. Kolhapur	187.483	559.738	372.255	2.69	3.74	4.67		
<u>WESTERN MAHARASHTRA</u>	<u>1,504.355</u>	<u>3,816.669</u>	<u>2,315.314</u>	<u>21.62</u>	<u>25.54</u>	<u>29.04</u>		
14. Aurangabad	61.436	326.421	246.985	0.88	2.18	3.10		
15. Parbhani	22.325	126.462	104.137	0.32	0.85	1.31		
16. Beed	13.894	71.362	57.468	0.20	0.48	0.72		
17. Nanded	36.104	100.444	64.340	0.52	0.67	0.81		
18. Osmanabad	38.643	142.880	104.237	0.56	0.95	1.31		
<u>MARATHWADA</u>	<u>172.402</u>	<u>767.569</u>	<u>577.167</u>	<u>2.48</u>	<u>5.13</u>	<u>7.25</u>		
19. Buldhana	32.345	85.916	53.571	0.46	0.57	0.67		
20. Akola	50.800	120.529	69.729	0.73	0.81	0.87		
21. Amravati	72.402	122.536	50.134	1.04	0.82	0.63		
22. Yavatmal	30.036	82.693	52.657	0.43	0.55	0.66		
23. Wardha	43.068	78.850	35.782	0.62	0.53	0.45		
24. Nagpur	319.368	566.258	246.890	4.59	3.79	3.10		
25. Bhandara	166.688	257.407	90.719	2.40	1.72	1.14		
26. Chandrapur	167.468	408.108	240.640	2.40	2.73	3.02		
<u>VIDARBHA</u>	<u>882.175</u>	<u>1,722.297</u>	<u>840.122</u>	<u>12.67</u>	<u>11.52</u>	<u>10.54</u>		
<u>MAHARASHTRA STATE</u>	<u>6,959.145</u>	<u>14,946.309</u>	<u>7,972.164</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>		
<u>MAHARASHTRA STATE</u>								
(excl. G.B.)	<u>4,266.579</u>	<u>9,452.724</u>	<u>5,171.145</u>	<u>61.31</u>	<u>63.24</u>	<u>64.87</u>		

Table 4.7

Per-Capita Consumption of Electricity in 1981-82

District	Total Consum- ption (KWH)	Of which Industry (KWH)	Agricul- ture (KWH)	Index of Col.(2)	Index of Col.(3)	Index of Col.(4)
1	2	3	4	5	6	7
1.Greater Bombay	666.42	413.16	0.02	-	-	-
2.Thane	772.04	697.05	3.41	445.47	642.32	9.87
3.Rajgad	330.88	301.31	4.36	190.92	277.65	12.62
4.Ratnagiri	31.64	13.71	1.26	18.26	12.63	3.65
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	<u>452.73</u>	<u>404.79</u>	<u>2.96</u>	<u>261.23</u>	<u>373.01</u>	<u>8.57</u>
5.Nashik	131.76	62.15	45.26	76.03	57.27	131.00
6.Dhule	86.44	18.08	43.44	49.88	16.66	125.73
7.Jalgaon	158.20	71.80	66.52	91.28	66.16	192.53
8.Ahmednagar	144.45	28.91	98.33	83.35	26.64	284.60
9.Pune	263.29	169.08	24.03	151.92	155.81	69.55
10.Satara	113.53	21.00	71.02	65.51	19.35	205.56
11.Sangli	122.37	47.64	56.25	70.61	43.90	162.81
12.Solapur	125.69	57.68	46.21	72.52	53.15	133.75
13.Kolhapur	223.33	125.51	39.42	128.86	115.66	114.10
<u>WESTERN MAHARASHTRA</u>	<u>162.27</u>	<u>76.05</u>	<u>52.39</u>	<u>93.63</u>	<u>70.08</u>	<u>151.64</u>
14.Aurangabad	134.14	50.14	68.30	77.40	46.20	197.77
15.Parbhani	69.13	7.96	47.77	39.89	7.34	138.26
16.Beed	48.02	7.04	30.42	27.71	6.49	88.05
17.Nanded	57.42	17.94	22.81	33.13	16.53	66.02
18.Osmanabad	64.05	15.17	39.58	36.96	13.98	114.56
<u>MARATHIWADA</u>	<u>78.90</u>	<u>21.82</u>	<u>43.89</u>	<u>45.53</u>	<u>20.11</u>	<u>127.03</u>
19.Buldhana	56.94	14.00	31.34	32.85	12.90	90.71
20.Akola	65.97	29.60	16.59	38.06	27.28	48.02
21.Amravati	65.83	22.25	22.64	37.98	20.50	65.53
22.Yavatmal	47.60	15.71	16.40	27.47	14.48	47.47
23.Wardha	85.09	43.35	15.68	49.10	39.95	45.38
24.Nagpur	218.73	133.30	10.56	126.21	122.83	30.56
25.Bhandara	140.08	105.17	5.88	80.82	96.91	17.02
26.Chandrapur	198.53	147.29	1.77	114.55	135.73	5.12
<u>VIDARBIYA</u>	<u>120.08</u>	<u>77.05</u>	<u>14.26</u>	<u>69.28</u>	<u>71.00</u>	<u>41.27</u>
<u>MAHARASHTRA STATE</u>	<u>238.06</u>	<u>148.52</u>	<u>30.02</u>	-	-	-
<u>MAHARASHTRA STATE</u>						
<u>(excl. G.B.)</u>	<u>173.31</u>	<u>108.52</u>	<u>34.55</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

Table 4.8

Deposits and Outstanding Advances of Commercial Banks
as on March 31, 1980

District	DEPOSITS		OUTSTANDING ADVANCES		Percentage of Col.(4) to Col.(2)
	Rs. Lakh	Per Capita (Rs.)	Rs. Lakh	Per Capita (Rs.)	
1	2	3	4	5	6
1. Greater Bombay	492,091	5,969.51	353,332	4,286.24	71.80
2. Thane	25,464	759.77	36,998	1,103.90	145.30
3. Raigad	4,740	318.88	5,280	355.21	111.39
4. Ratnagiri	6,827	323.35	2,196	104.01	32.17
<u>KONKAN</u>					
(excl. G.B.)	37,031	532.87	44,474	639.98	120.10
5. Nashik	9,458	316.14	6,604	220.74	69.82
6. Dhule	3,465	169.00	2,287	111.54	66.00
7. Jalgaon	8,994	343.51	3,967	151.51	44.11
8. Ahmednagar	6,130	226.34	6,739	248.83	109.93
9. Pune	52,230	1,254.18	41,116	997.30	78.72
10. Satara	6,581	322.81	3,795	186.15	57.67
11. Sangli	6,193	338.19	4,134	225.75	66.75
12. Solapur	7,896	302.51	5,376	205.97	68.09
13. Kolhapur	8,196	327.01	6,387	254.83	77.93
<u>WESTERN MAHARASHTRA</u>	109,143	464.05	80,405	341.87	73.67
14. Aurangabad	5,063	208.06	6,116	251.33	120.80
15. Parbhani	2,036	111.29	1,495	81.72	73.43
16. Beed	1,558	104.84	1,250	84.12	80.23
17. Nanded	2,138	122.22	1,762	100.72	82.41
18. Osmanabad	2,204	98.81	1,826	81.86	82.85
<u>MARATHWADA</u>	12,999	133.61	12,449	127.96	95.77
19. Buldhana	2,312	153.23	1,875	124.27	81.10
20. Akola	3,738	204.60	2,325	127.26	62.20
21. Amravati	4,700	252.50	2,497	134.15	53.13
22. Yavatmal	2,738	157.59	1,232	70.91	45.00
23. Wardha	2,329	251.34	1,023	110.40	43.92
24. Nagpur	19,814	765.37	10,606	409.69	53.53
25. Bhandara	2,214	120.48	1,045	56.87	47.20
26. Chandrapur	3,250	158.10	1,665	81.00	51.23
<u>VIDARBHA</u>	41,095	286.51	22,268	155.25	54.19
<u>MAHARASHTRA STATE</u>	692,359	1,102.76	512,930	816.97	74.08
<u>(excl. G.B.)</u>	200,268	367.19	159,598	292.62	79.69

different order. Only in per capita consumption of electricity for agriculture, we get a different set of districts above the State Average. They are : Ahmednagar (284.60), Satara (205.56), Aurangabad (197.77), Jalgaon (192.53), Sangli (162.81), Parbhani (138.26), Solapur (133.75), Nashik (131.00), Dhule (125.73), Osmanabad (114.56) and Kolhapur (114.10).

Per Capita Bank Credit:

4.42. Per capita bank credit is also suggested as an indicator of economic development. Relevant data are given in cols.4 and 5 of Table 4.8. The per capita bank advances in the State (excluding Greater Bombay) as on March 31, 1980, was Rs.292.62. In the following four districts, it was above the State Average : Thane (Rs.1,103.90), Pune (Rs.997.30), Nagpur (Rs.409.69) and Raigad (Rs.355.21). In cols.2 and 3, we give the data regarding bank deposits. The per capita deposits in the State (excluding Greater Bombay) was Rs.367.19. In three districts, they were above the State Average : Pune (Rs.1,254.18), Nagpur (Rs.765.37) and Thane (759.77). In col.6 of the Table is shown advances as percentage of deposits. This is the credit/deposit ratio. Only in four districts, the ratio was greater than one : Thane (145.30), Aurangabad (120.80), Raigad (111.39) and Ahmednagar (109.93).

Literacy:

4.43. Finally, we shall consider literacy, which is an important indicator of general development. The relevant data are presented in Table 4.9. In view of the sharp difference that exists between male and female literacy, we shall consider the two separately. For instance, in 1961, considering the State as a whole, excluding Greater Bombay, the literacy percentages were 38.83 per cent for the male population and only 13.72 per cent for the female population. In 1981, the percentages were 56.03 per cent for the male and 31.16 per cent for the female population. Thus, the gap between the male and female literacy remained the same.

4.44. In the matter of literacy, while the other three regions are more or less on par, Marathwada is seen left far behind. Thus, in 1961, the percentage of male literacy in Western Maharashtra, Vidarbha and Konkan was 42.11, 41.05 and 40.35 respectively; in Marathwada, it was only 26.46 per cent. In female literacy, Konkan had a slight lead over the other two regions. In 1961, percentage of female literacy in Konkan, Western Maharashtra and Vidarbha was 17.05, 15.69 and 14.13 respectively; in Marathwada, it was only 5.73 per cent.

4.45. If we examine the position districtwise, the percentage of male literacy in 1961 ranged from 49.32 per cent in Jalgaon to 24.60 per cent in Beed. The percentage of female literacy ranged from 21.74 per cent in Pune to 5.16 per cent in Nanded. In the following, we list the districts in descending order of percentage of male literacy in 1961. In brackets are shown

Table 4.9

Percentage of Literate Males and Females

District	1961		1981		Increase	
	Males	Females	Males	Females	Males Col.(4)- Col.(2)	Females Col.(5)- Col.(3)
1	2	3	4	5	6	7
1.Greater Bombay	65.10	48.81	73.93	60.28	8.83	11.47
2.Thane	41.09	19.06	59.20	40.19	18.11	21.13
3.Raigad	36.37	13.40	57.22	33.95	20.85	20.55
4.Ratnagiri	42.16	17.44	59.61	37.99	17.45	20.55
<u>KONKAN</u>						
(excl. G.B.)	40.35	17.05	58.76	37.79	18.41	20.74
5.Nashik	39.36	13.71	55.60	31.73	16.24	18.02
6.Dhule	37.43	12.45	48.63	25.84	11.20	13.39
7.Jalgaon	49.32	18.02	60.95	33.97	11.63	15.95
8.Ahmednagar	39.36	13.03	56.43	28.89	17.07	15.86
9.Pune	46.18	21.74	65.37	42.11	19.19	20.37
10.Satara	47.41	21.16	60.07	36.68	13.66	15.52
11.Sangli	41.88	13.64	59.26	33.08	17.38	19.44
12.Solapur	36.89	12.60	53.51	26.75	16.62	14.15
13.Kolhapur	40.09	12.04	59.60	30.64	19.51	18.60
<u>WESTERN MAHARASHTRA</u>						
14.Aurangabad	28.65	6.67	50.72	19.74	22.07	13.07
15.Parbhani	25.27	5.19	44.43	15.34	19.16	10.15
16.Beed	24.60	5.27	45.63	17.15	21.03	11.88
17.Nanded	24.83	5.16	43.40	15.53	18.57	10.37
18.Osmanabad	27.52	6.02	48.69	21.73	21.17	15.71
<u>MARATHWADA</u>						
19.Buldhana	41.15	12.22	58.76	29.75	17.61	17.53
20.Akola	44.81	16.69	59.22	35.00	14.41	18.31
21.Amravati	45.91	20.57	60.31	42.15	14.40	21.58
22.Yavatmal	35.34	11.27	51.18	26.76	15.84	15.49
23.Wardha	43.44	16.98	60.66	40.44	17.22	23.46
24.Nagpur	48.06	21.26	63.83	44.80	15.77	23.54
25.Bhandara	39.90	8.19	58.24	29.44	18.34	21.25
26.Chandrapur	28.52	5.79	46.59	22.26	18.07	16.47
<u>VIDARBHA</u>						
41.05	14.13	57.28	33.76	16.23	19.64	
<u>MAHARASHTRA STATE</u>						
42.04	16.76	58.65	34.63	16.61	17.87	
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	38.83	13.72	56.03	31.16	17.20	17.44

percentages of female literacy.

<u>Above State Average</u>			<u>Below State Average</u>		
Jalgaon	49.32	(18.02)	Dhule	37.43	(12.45)
Nagpur	48.06	(21.26)	Solapur	36.89	(12.60)
Satara	47.41	(21.16)	Raigad	36.37	(13.40)
Pune	46.18	(21.74)	Yavatmal	35.34	(11.27)
Amravati	45.91	(20.57)	Aurangabad	28.65	(6.67)
Akola	44.81	(16.69)	Chandrapur	28.52	(5.79)
Wardha	43.44	(16.98)	Osmanabad	27.52	(6.02)
Ratnagiri	42.16	(17.44)	Parbhani	25.27	(5.19)
Sangli	41.88	(13.64)	Nanded	24.83	(5.16)
Buldhana	41.15	(12.22)	Beed	24.60	(5.27)
Thane	41.09	(19.06)			
Kolhapur	40.09	(12.04)			
Bhandara	39.90	(8.19)			
Ahmednagar	39.36	(13.03)			
Nashik	39.36	(13.71)			

4.46. Between 1961 and 1981, the male literacy in the State, excluding Greater Bombay, improved by 17.20 percentage points and the female literacy by 17.44 percentage points. This may be seen from cols.6 and 7 of the Table. Thus, the gap between male and female literacy has remained about the same. The increase in percentage points in male literacy was 20.40 in Marathwada, 18.41 in Konkan, 16.26 in Western Maharashtra and 16.23 in Vidarbha. Thus, the gap between Marathwada and the other three regions narrowed down a little, but only a little. Konkan made up the small lag and took lead over Western Maharashtra and Vidarbha. The increase in percentage points in female literacy was 20.74 in Konkan, 19.64 in Vidarbha, 15.98 in Western Maharashtra and only 12.22 in Marathwada. Thus, the gap between Marathwada and the other three regions in female literacy widened. Konkan increased its lead over Western Maharashtra and Vidarbha.

4.47. In 1981, the male literacy ranged from 65.37 per cent in Pune to 43.40 in Nanded. Female literacy ranged from 44.80 per cent in Nagpur to 15.34 per cent in Parbhani. In the following, we list the districts in descending order of male literacy in 1981. In brackets are shown percentages of female literacy:

<u>Above Stage Average</u>			<u>Below State Average</u>		
Pune	65.37	(42.11)	Nashik	55.60	(31.73)
Nagpur	63.83	(44.80)	Solapur	53.51	(26.75)
Jalgaon	60.95	(33.97)	Yavatmal	51.18	(26.76)
Wardha	60.66	(40.44)	Aurangabad	50.72	(19.74)
Amravati	60.31	(42.15)	Osmanabad	48.69	(21.73)
Satara	60.07	(36.68)	Dhule	48.63	(25.84)
Ratnagiri	59.61	(37.99)	Chandrapur	46.59	(22.26)
Kolhapur	59.60	(30.64)	Beed	45.63	(17.15)
Sangli	59.26	(33.08)	Parbhani	44.43	(15.34)
Akola	59.22	(35.00)	Nanded	43.40	(15.53)
Thane	59.20	(40.19)			
Buldhana	58.76	(29.75)			

Bhandara	58.24	(29.44)
Raigad	57.22	(33.95)
Ahmednagar	56.43	(28.89)

Proportion of Weaker Sections:

4.48. When we examine the process of development sectorally, some of the causes underlying regional inequalities in specific sectors will become evident. However, one circumstance appears to underlie regional inequality in the development in many sectors. It is the concentration of socially disadvantaged and weaker sections in certain districts. In Table 4.10, we give the populations of Scheduled Tribes, Scheduled Castes and Nav-Baudhas and Agricultural labour in different districts expressed as percentages of the total population of the districts. It will be noticed that the Scheduled Tribes constitute 10.43 per cent of population of the State excluding Greater Bombay; Scheduled Castes 7.48 per cent and Nav-Baudhas 6.20 per cent. The three classes put together constitute 24.11 per cent of the population of the State, excluding Greater Bombay. Agricultural labour constitutes 11.92 per cent.

4.49. As against the State Average of 24.11 per cent, the districts which have a higher percentage of Scheduled Castes, Scheduled Tribes and Nav-Baudhas are as follows. The figures in brackets indicate the percentage of agricultural labour in the district.

<u>District</u>	<u>Scheduled Castes, Scheduled Tribes and Nav-Baudhas as per cent of total population</u>
Dhule	46.37 (15.94)
Chandrapur	43.70 (12.71)
Bhandara	38.98 (12.39)
Yavatmal	35.39 (24.65)
Nagpur	35.24 (9.37)
Nashik	34.76 (12.75)
Wardha	33.68 (20.65)
Amravati	32.54 (21.22)
Nanded	31.15 (14.05)
Akola	27.93 (21.59)
Thane	26.17 (4.90)

4.50. In the following districts the percentage of Scheduled Castes, Scheduled Tribes and Nav-Baudhas were lower than the State Average (24.11 per cent).

<u>District</u>	<u>Scheduled Castes, Scheduled Tribes and Nav-Baudhas as per cent of total population</u>
Buldhana	22.94 (20.52)
Osmanabad	21.82 (14.65)
Parbhani	21.61 (17.54)

Table 4.10

Percentage of Scheduled Tribes and Castes, Nav-Baudhas
and Agricultural Labourers in 1981

District	Percentage to Total Population			Total Cols.(2)+ (3) + (4)	Agricul- tural Labourers
	Scheduled Tribe	Scheduled Caste	Nav-Baudhas*		
1	2	3	4	6	7
1.Greater Bombay	1.02	4.84	4.76	10.62	0.06
2.Thane	21.16	2.50	2.51	26.17	4.90
3.Raigad	12.80	1.16	4.41	18.37	5.31
4.Ratnagiri	1.50	2.14	5.55	9.19	2.82
<u>KONKAN</u>					
(excl. G.B.)	13.61	2.20	3.71	19.52	4.36
5.Nashik	23.45	6.21	5.10	34.76	12.75
6.Dhule	40.53	4.11	1.73	46.37	15.94
7.Jalgaon	8.25	5.89	4.64	18.78	16.61
8.Ahmednagar	6.93	10.62	2.55	20.10	11.88
9.Pune	2.81	7.53	5.06	15.40	4.53
10.Satara	0.64	6.21	5.78	12.63	6.85
11.Sangli	0.85	11.16	2.95	14.96	7.65
12.Solapur	1.98	14.39	1.75	18.12	11.17
13.Kolhapur	1.09	12.07	0.78	13.94	6.07
<u>WESTERN MAHARASHTRA</u>	9.36	8.65	3.49	21.50	10.11
14.Aurangabad	3.11	6.18	8.15	17.44	11.78
15.Parbhani	4.30	5.82	11.49	21.61	17.54
16.Beed	0.90	11.47	2.69	15.06	12.59
17.Nanded	10.19	11.30	9.66	31.15	14.05
18.Osmanabad	2.33	15.45	4.04	21.82	14.65
<u>MARATHWADA</u>	4.08	9.93	7.21	21.22	13.39
19.Buldhana	4.40	6.27	12.27	22.94	20.52
20.Akola	6.28	5.51	16.14	27.93	21.59
21.Amravati	12.98	6.16	13.40	32.54	21.22
22.Yavatmal	21.30	4.88	9.21	35.39	24.65
23.Wardha	15.35	3.98	14.35	33.68	20.65
24.Nagpur	13.65	7.05	14.54	35.24	9.37
25.Bhandara	16.22	9.75	13.01	38.98	12.39
26.Chandrapur	26.73	6.53	10.44	43.70	12.71
<u>VIDARBHA</u>	14.89	6.45	12.91	34.25	17.08
<u>MAHARASHTRA STATE</u>	9.19	7.14	6.47	22.80	10.36
<u>(excl. G.B.)</u>	10.43	7.48	6.20	24.11	11.92

* Based on 1971 Census.

Ahmednagar	20.10 (11.88)
Jalgaon	18.78 (16.61)
Raigad	18.37 (5.31)
Solapur	18.12 (11.17)
Aurangabad	17.44 (11.78)
Pune.	15.40 (4.53)
Beed	15.06 (12.59)
Sangli	14.96 (7.65)
Kolhapur	13.94 (6.07)
Satara	12.63 (6.85)
Ratnagiri	9.19 (2.82)

4.51. In the following 14 districts, the percentage of agricultural labour in the population is higher than the State average (11.92):

Yavatmal	24.65	Dhule	15.94
Akola	21.59	Osmanabad	14.65
Amravati	21.22	Nanded	14.05
Wardha	20.65	Nashik	12.75
Parbhani	17.54	Chandrapur	12.71
Jalgaon	16.61	Beed	12.59
Buldhana	20.52	Bhandara	12.39

Scheduled Tribes, Scheduled Castes and Nav-Baudhas are of course, mutually exclusive groups. However, there is likely to be considerable overlap between them and the agricultural labour.

4.52. Problems of development of these several groups are recognised to be different and are being separately attended to by means of special programmes and provisions. However, to the extent these special programmes and provisions have not proved effective to remove the disabilities of these groups, their uneven distribution in different regions or districts appears in the form of regional inequalities in development. This will appear even more so when disparities in development are examined at levels below the district such as the taluka or development block, because of even greater concentration of these groups in certain talukas or blocks. In subsequent discussion of sectoral development in different regions or districts, it will be useful to bear this circumstance in mind.

ANNEXURE

A Note on the Estimation of District Product
at current prices by Industry of Origin
for the year 1978-79.

4A.1. The note explains in brief the method followed in estimating product at current prices in different sectors by districts in Maharashtra for the year 1978-79.

4A.2. The Net State Domestic Product (NSDP) is estimated by following income originating approach. It is not computed by adopting income-accruing approach because of certain difficulties at the State level. These difficulties get more pronounced if similar approach is to be followed in the computation of Net Domestic Product at the district level (briefly referred to as DP in the subsequent paras). Hence an attempt can be made to estimate DP by adopting income-originating approach as at the State level. But even here the process of estimation of DP is beset with certain difficulties. Just as the operating surplus generated in railways, communications and the like, whose activities extend beyond one State, is not conceptually assignable to a particular State and, with the same logic, to a particular district within the State, similarly the operating surplus of industries like MSRTC and MSEB, the activities of which are spread in different districts, cannot be conceptually allocated to a particular district. Such income which cannot be conceptually allocated is considered as unallocable income. The remaining component of income, therefore, constitutes, conceptually allocable income or one which can be considered to be originating in districts.

4A.3. The product which can thus be considered to have originated in districts can be classified into three categories:

(i) the product which can be estimated by using data actually forthcoming at the district level (e.g. districtwise estimation of value of principal crops or calculation of value added from registered manufacturing); (ii) the product which cannot be computed for want of requisite district data, but which can be assigned to the district by allocating NSDP on the basis of a suitable indicator or by adopting a State level norm uniformly for all districts; and (iii) the product which is assignable to the district but which cannot be assigned for want of State level norm/suitable indicator or because of the typical nature of the method of estimation adopted at the State level.

4A.4. The sectors of the district economy have been classified into two broad groups, viz. A - the commodity producing sectors and B - the non-commodity producing sectors, keeping in view the methods broadly adopted in the estimation of product from these sectors. The output method is generally adopted in the former

group whereas the income method is used in the latter. The first group is taken to cover the following sectors:

- I) Agriculture, Animal Husbandry and Allied Activities,
- II) Forestry,
- III) Fishing,
- IV) Mining,
- V) Manufacturing : Registered,
- VI) Manufacturing : Unregistered; and
- VII) Electricity, Gas and Water Supply.

The second group covers the remaining sectors, viz.

- VIII) Construction,
- IX) Transport, Storage and Communications,
- X) Trade, Hotels and Restaurants,
- XI) Banking and Insurance,
- XII) Real Estate, Ownership of Dwellings and Business Services,
- XIII) Public Administration; and
- XIV) Other Services (including Education).

4A.5. The districtwise estimates for commodity producing sectors and for non-commodity producing sectors alongwith their totals have been presented in Statement No.2 appended to the note. It is to be noted here that as the districtwise estimates from non-commodity producing sectors are largely based on the assignable part of NSDP allocated to districts on the basis of certain indicators/State level norms, the districtwise differences may not get appropriately reflected in the estimates so prepared.

4A.6. The procedure of estimation adopted for each sector is given below:

I. Agriculture, Animal Husbandry and Allied Activities

4A.7. Agriculture: The value added from this sector is computed by deducting value of inputs (including depreciation) from the gross value of output. For purposes of valuation, the sector is divided into (i) principal crops, (ii) crops for which only area figures are available, (iii) products and (iv) by-products. The value of principal crops, other crops, products and by-products are taken together to arrive at the gross value of agriculture (proper) of each district. The data on area, outturn and prices are generally available districtwise for all the principal crops which number 31. These crops account for about 70 per cent of the total gross value from agriculture (proper).

4A.8. There are 17 crops for which only area figures are available. The share of the value of these crops in the total gross value is about 17 per cent. The values of these crops, based on the output estimated by using pilot survey result/adhoc norms, and prices have been allocated to different districts in proportion to districtwise area figures in respect of these

crops.

4A.9. There are three products, viz. gur, grass and farmyard wood, which account for about 4 per cent of the gross value from agriculture (proper).

4A.10. The divisional level value of sugarcane and gur has been apportioned to districts in the concerned division on the basis of districtwise sugarcane output, assuming the same proportion of sugarcane and gur at the divisional level for each district.

4A.11. The State level values of grass and farmyard wood have been allocated to the districts on the basis of the districtwise area figures obtained from land utilisation statistics, assuming the same yield rate as at the State level in all the districts.

4A.12. As regards by-products (with a share of about 9 per cent in gross value) the State level values of straw in respect of different crops have been allocated to different districts on the basis of areas of the concerned crops.

4A.13. The values of remaining by-products in respect of tobacco, rice, gur and sugarcane have been allocated to different districts on the basis of the output of the concerned agricultural commodities.

4A.14. Animal Husbandry: The estimates of gross value from animal husbandry sector for the year 1978-79 have been allocated to different districts according to the procedure outlined below:

4A.15. Milk and Milk Products: The data on output and value of milk procured by Government Dairies have been assumed to constitute the organised part of total milk production at the district level. The value of rest of the milk production available separately for she-buffaloes and cows from the Directorate of Animal Husbandry at the divisional level has been allocated to the districts in the concerned divisions on the basis of the number of milch animals of each category. The State level value of goat milk has been distributed among districts in proportion to the districtwise number of milch goats.

4A.16. The State level value of milk products has been distributed on the basis of the total value of milk production, organised and un-organised together, arrived at, at the district level.

4A.17. Meat and Meat Products: The State level values of these products have been allocated to districts on the basis of the number of slaughtered animals of different categories.

4A.18. Wool, Goat hair and Pig bristles: The State level values of these products have been allocated to districts on the basis of the total number of animals in the respective categories according to the Livestock Census, 1978.

4A.19. Value of dung: The State level value has been distributed according to the total bovine population based on the Livestock Census, 1978.

4A.20. Products of poultry birds and increment in livestock and poultry: The State level values have been distributed among districts using the relevant data on the number of birds/animals from the Livestock Census, 1978.

4A.21. Allied Activities: The net product from the operation of Government irrigation schemes has been allocated to districts on the basis of area irrigated by Government canals.

4A.22. The State level value of veterinary services and other allied activities has been allocated to districts on the basis of districtwise data on working force.

4A.23. Inputs in Agriculture including Animal Husbandry: The State level values of inputs in agriculture and animal husbandry sectors have been allocated to different districts by using the indicators mentioned below:

<u>Item</u>	<u>Indicator</u>
i) Seed	The State level values have been allocated to different districts on the basis of area/value of output of the concerned crops, assuming the same seed rate for all districts.
ii) Chemical Fertilisers	The State level values have been allocated to different districts on the basis of the seasonwise consumption of NPK nutrients by districts made available for Maharashtra State in the publication, 'Fertiliser Statistics' for 1979-80.
iii) Pesticides and Insecticides	The State level values have been allocated to different districts following the pattern of districtwise seasonwise consumption of NPK nutrients in 1978-79.
iv) Organic manure)	The State level values of these inputs have been distributed according to districtwise gross cropped area for the year 1978-79.
)	
v) Current repairs & maintenance and other operational costs and depreciation.)	
)	
)	

- vi) Livestock feed The State level value has been allocated to different districts on the basis of number of working animals in each district.
- vii) Irrigation charges The districtwise area irrigated by Government canals has been taken as the basis for distributing the State level values of irrigation charges among districts.
- viii) Market Charges The State level value of market charges has been apportioned to districts on the basis of districtwise gross values of agriculture (proper).
- ix) Electricity The districtwise number of electric pumps according to Livestock Census, 1978 has been used for allocating the State level value of electricity to different districts.
- x) Diesel oil The districtwise number of oil engines, used for agricultural purposes and the districtwise number of tractors, according to Livestock Census, 1978 have been used to allocate the State level value of diesel oil to different districts.
- xi) Rice milling charges The State level value of rice milling charges has been allocated to districts on the basis of districtwise output of rice.

4A.24. Adjustment for Seasonal Variation: It was considered desirable that to enable one to make inter-district comparison adjusted for seasonal variations the total DP should be estimated as an average for three years. But time was not available for estimating the DP for three years and seasonal adjustment could be done only for the sector of agriculture (proper). Even while considering the three years average it would have been desirable to use a continuous period of three years of which the year 1978-79 formed the centre. However, since the estimates for 1977-78 were not available by the revised method of estimation, i.e. the method that has been used in preparing the State level estimates, it became necessary to use the average for three years 1978-79, 1979-80 and 1980-81.

4A.25. For these three years the average of gross values of agricultural production (proper) for every district was worked out, and the gross value of agriculture (proper) for the year 1978-79 originally prepared by the above method of estimation at

the State level was distributed over the districts in proportion to the three year averages for 1978-79 to 1980-81. This ensured that the State level estimate for 1978-79 was held constant but the differences in the seasonal variation in different districts were averaged out in the process. This was the best that could be done under the circumstances. The calculations in this behalf are shown in the Statement No. 1 in cols. 2, 3, 4 and 5. As a result though the districtwise estimates are called as estimates referring to 1978-79, in respect of the sector of agriculture (proper) they refer to the three years average.

4A.26. After determining the gross value of agriculture proper in this manner, the gross value of the animal husbandry sector shown in col.(6) was added to it to arrive at the total gross value of agriculture and animal husbandry shown in col.(7) of the Statement No.1. The Statement further shows the value of inputs for 1978-79, and the net product from agriculture and animal husbandry sectors together (col.9). After adding to this the net product from allied activities, the net DP in the sector of agriculture, animal husbandry and allied activities was obtained (col.11). These figures are shown in col.(2) of Statement No.2. and used for estimating the DP from all sectors together.

II. Forestry

4A.27. The data on districtwise values of major forest produce, comprising timber and fuel wood, for the year 1978-79 have been reported by the Office of Forest Statistician (OFS), Maharashtra State, Pune. They have been used to show the districtwise values of timber and fuel wood. In respect of minor forest produce, the State level value reported by OFS is allocated to different districts on the basis of the districtwise forest area. No adjustment has been done to account for non-reported component of major and minor forest produce at the district level. The input norms used at the State level have been adopted for all districts.

III. Fishing

4A.28. The State level value added from the activity of marine fishing including that of collection of pearls and chanks, has been allocated to four districts, viz. Greater Bombay, Thane, Raigad and Ratnagiri, on the basis of the districtwise values reported by the Directorate of Fisheries (DF), in respect of the activity concerning fresh fish, salted fish and sun dried fish constituting the marine fishing activity. As regards inland fishing, the State level value added has been allocated to different districts on the basis of the districtwise values of inland fish production reported by the DF for the year 1978-79. In the absence of similar data, the value added from subsistence fishing has been distributed among different districts following the trends in values of inland fishing reported for different districts by the DF. The State level input norms have been assumed for all districts.

IV. Mining

4A.29. The districtwise data on values of major minerals supplied by the Directorate of Geology and Mining (DGM), Nagpur, for the calendar year 1978 have been used as the basis for distribution of State level values of major minerals supplied by Indian Bureau of Mines, Nagpur, for the financial year 1978-79 among the concerned districts. As regards minor minerals, the State level value for 1978-79 has been distributed among the districts in the proportion of districtwise values of minor minerals reported for the year 1976 by the DGM, Nagpur. The State level input norms have been applied to districtwise values to arrive at the net income, in the absence of similar norms at the district level.

V. Manufacturing : Registered

4A.30. The data on districtwise value added by manufacture are compiled by availing of results of the Annual Survey of Industries for 1978-79. They have not been adjusted for non-reporting industries at the district level.

VI. Manufacturing : Un-registered

4A.31. The State level value added from this sector has been distributed among the districts in the proportion of districtwise employees from manufacturing sector according to the Economic Census, 1980, after making due adjustment for districtwise employment in registered factory sector.

VII. Electricity, Gas and Water Supply

4A.32. Electricity: The NSDP from this sector consists of wages and salaries and operating surplus. The former component, viz., wages and salaries, could not be allocated to different districts as the districtwise position of staff/emoluments in respect of major electricity companies is not available. The latter component, viz. the operating surplus, being conceptually unallocable, has not been allocated to districts. With the result that the whole of NSDP (Rs.211 crore) in electricity sector has remained unallocated.

4A.33. Gas: The NSDP from gas sector (Rs.1 crore) has been allocated to Greater Bombay District, as the Bombay Gas Co. is located in Bombay.

4A.34. Water Supply: The NSDP from this sector has been allocated to different districts in the proportion of districtwise number of workers according to 1971 Population Census. The NSDP is Rs.18 crore constituting 0.17 per cent of the State income.

VIII. Construction

4A.35. It has not been possible to have a districtwise break-up of NSDP originating in this sector because of the typical nature of the method of estimation adopted at the State level. So the NSDP of Rs.561 crore originating in construction sector has not been allocated to districts. Its share in the total NSDP is about 5 per cent.

IX. Transport, Storage and Communications

4A.36. Transport: As regards railways, the State level income has been split into two components, viz., wages and salaries and operating surplus, by adopting All-India ratio for the year 1978-79. Whereas the operating surplus (Rs.33 crore) is conceptually unallocable and hence has not been allocated to districts, the portion of wages and salaries (Rs.74 crore) has been distributed among districts in the proportion of districtwise number of workers according to 1971 Population Census.

4A.37. The NSDP of Rs.50 crore from Air Transport has not been allocated as the data required for splitting the NSDP into emoluments and operating surplus are not available.

4A.38. The NSDP from Road Transport (Rs.237 crore) has been divided into organised part and unorganised part. The former consists of transport companies like, MSRTC, BEST, PMT, KMT and SMT. The NSDP from all the companies except MSRTC has been allocated to concerned districts in which those companies are located. In respect of MSRTC, while the component of operating surplus (about Rs.8 crore) has not been allocated, the component of wages and salaries (about Rs.38 crore) has been assigned to districts in the proportion of districtwise staff working in MSRTC.

4A.39. The NSDP from unorganised part has been distributed among districts following the proportions of districtwise number of workers according to 1971 Population Census.

4A.40. The water transport too consists of organised and unorganised segments. The former comprises BPT and Shipping Companies. The NSDP (Rs.88 crore) relating to this segment has been allocated to Greater Bombay district. The NSDP from unorganised part (Rs.11 crore) has been allocated to districts on the basis of the working force proportions according to 1971 Population Census.

4A.41. The NSDP originating in 'Services incidental to transport' has been allocated to districts by using the district proportions of working force from the concerned transport category according to 1971 Population Census.

4A.42. Storage: As the data on staff and emoluments and operating surplus of Maharashtra State Warehousing Corporation

are not available districtwise, the NSDP generated from its activity has been treated as unallocable. The residual component of NSDP from this sector has also not been distributed for want of relevant districtwise data.

4A.43. Communications: The NSDP originating in this sector has been first apportioned into wages and salaries and operating surplus by using All-India ratios of these two components. The portion of emoluments has been distributed among districts in the proportion of districtwise working force figures according to 1971 Population Census. The operating surplus (Rs.60 crore) has been treated as unallocable.

X. Trade, Hotels and Restaurants:

4A.44. The districtwise working force data in these sectors, collected in the Economic Census, 1980 have been used as the basis for allocating NSDP to different districts.

XI. Banking and Insurance:

4A.45. After splitting up the NSDP generated in these sectors into emoluments and operating surplus by adopting All-India ratios, the former has been allocated to districts following the districtwise number of workers in these sectors according to Economic Census, 1980, while the latter has been treated as unallocable.

XII. Real Estate, Ownership of Dwellings and Business Services:

4A.46. Real Estate: The NSDP has been allocated to districts according to the distribution of working force in the districts as per the Population Census, 1971.

4A.47. Ownership of Dwellings: The urban and rural rentals have been allocated to different districts in the proportion of urban and rural occupied residential houses respectively in different districts according to the provisional results of the Population Census, 1981.

XIII. & XIV. Public Administration and Other Services:

4A.48. In the case of Public Administration, including Central Government administration, business services and sanitary services, the basis of allocation of NSDP has been the districtwise working force in the concerned categories of activity according to the Population Census, 1971. The districtwise working force according to the Economic Census, 1980 has been adopted as the basis for allocation of NSDP to different districts in respect of other services.

4A.49. The Sectorwise position indicating the estimated and unestimated components of NSDP is shown below. The NSDP of Maharashtra at current prices is Rs.10,632 crore for the year 1978-79. Of this, Rs.9,276 crore (about 87 per cent) has been

estimated districtwise, and the balance of Rs.1,356 crore (about 13 per cent) could not be estimated mainly due to conceptual problem.

Sectorwise Position Indicating the Estimated and
Unestimated Components of NSDP Districtwise
1978-79

(Rs. crore)

Sector	Total NSDP	Estimated District- wise	Not estimated Districtwise
1	2	3	4
1. Agriculture	2,771	2,771	-
2. Forestry and Logging	117	46	71*
3. Fishing	82	82	-
4. Mining and Quarrying	25	25	-
5. Manufacturing- Registered	2,263	2,241	22*
6. Manufacturing- Unregistered	638	638	-
7. Construction	561	-	561@
8. Electricity	211	-	211+
9. Ga and Water Supply	19	19	-
10. Railways	107	74	33
11. Air Transport	50	-	50
12. Transport by other means and Storage	338	328	10
13. Communications	142	82	60
14. Trade, Hotels & Restaurants	1,509	1,509	-
15. Banking and Insurance	650	312	338
16. Real Estate and Ownership of Dwellings	187	187	-
17. Business Services	74	74	-
18. Public Administration	283	283	-
19. Other Services	605	605	-
<u>TOTAL</u>	<u>10,632</u> (100.00)	<u>9,276</u> (87.25)	<u>1,356</u> (12.75)

Col.4

* Due to non-reporting component at the State level.

@ Cannot be estimated at the district level due to particular method that could be followed at the State level.

+ Partly due to lack of data and partly due to conceptual problem.

The rest could not be estimated due to conceptual problem.

4A.50. Of the DP of Rs.9,276 crore, that estimated by an appropriate method of allocation to the districts is as follows for different sectors:

Table showing Net State Domestic Product (NSDP) Assigned to Districts in Maharashtra Using Indicators. (1978-79)

<u>Sector</u>	<u>NSDP</u> (Rs. Crore)
1. Allied Activities* in Agriculture Sector	63.21
2. Manufacturing un-registered	638.32
3. Water Supply	17.84
4. Railways	74.09
5. Transport by other means	224.28
6. Communications	81.48
7. Trade, Hotels and Restaurants	1,509.22
8. Banking and Insurance	312.50
9. Real estate and Ownership of dwellings	187.07
10. Business Services	74.41
11. Public Administration	282.97
12. Other Services	604.47
<u>TOTAL:</u>	<u>4,069.86</u>

(* They comprise net product from
i) Operation of Government irrigation systems,
ii) Veterinary Services,
iii) The activities relating to production of honey and wax, cocoons and raw silk, etc., and
iv) Hunting and trapping).

4A.51. The part of the NSDP allocated by using indicators is Rs.4,070 crore, which accounts for about 44 per cent of the allocable component of NSDP of Rs.9,276 crore and about 38 per cent of total NSDP of Rs.10,632 crore, in 1978-79. Trade, unregistered manufacturing and other services are the major sectors whose Net State Domestic Product accounts for about 68 per cent of the indicator based product (i.e. Rs.4,070 crore).

4A.52. The Table above does not cover agriculture (proper) and animal husbandry sectors in respect of which State level and/or regional level gross values of certain components have been allocated to districts by using indicators. These components relate to miscellaneous crops (i.e. other than principal crops), products and by-products in Agriculture (proper) and milk, livestock products, etc., in Animal Husbandry.

Statement - 1.
Net State Domestic Product from Agriculture by
Districts based on Gross Value of Agriculture (Proper)
adjusted for seasonal variations (Rs. Lakh)

District	Gross Value of Agriculture (proper) for 1978-79 (originally prepared)	Average of Gross Values of Agriculture (proper) for 1978-79 to 1980-81	Percent- age of figure to Total in Col.(3)	Distri- bution of State Level GVA* for 1978-79 Accord- ing to percent- ages in Col.(4)	Gross Value of Animal Husban- dary
1	2	3	4	5	6
1. Greater Bombay	142	146	0.04	118	10,406
2. Thane	6,447	6,980	2.09	6,142	2,146
3. Raigad	5,913	6,465	1.94	5,701	1,450
4. Ratnagiri	10,601	11,113	3.33	9,786	2,046
<u>KONKAN</u>					
(excl. G.B.)	<u>22,961</u>	<u>24,558</u>	<u>7.36</u>	<u>21,629</u>	<u>5,642</u>
5. Nashik	17,553	17,725	5.30	15,575	2,786
6. Dhule	9,791	11,031	3.30	9,697	3,176
7. Jalgaon	23,658	24,686	7.39	21,716	2,869
8. Ahmednagar	17,027	21,784	6.52	19,160	3,008
9. Pune	15,701	19,603	5.87	17,250	4,977
10. Satara	11,055	13,368	4.00	11,754	2,665
11. Sangli	11,976	13,306	3.98	11,696	3,162
12. Solapur	13,346	15,036	4.50	13,224	2,858
13. Kolhapur	13,919	17,196	5.15	15,134	4,263
<u>WESTERN MAHARASHTRA</u>	<u>134,026</u>	<u>153,735</u>	<u>46.01</u>	<u>135,206</u>	<u>29,764</u>
14. Aurangabad	16,510	18,414	5.51	16,192	1,919
15. Parbhani	13,024	14,769	4.42	12,989	1,622
16. Beed	9,311	11,038	3.30	9,697	1,677
17. Nanded	9,376	10,896	3.26	9,580	1,781
18. Osmanabad	17,018	18,209	5.45	16,015	2,502
<u>MARATHWADA</u>	<u>65,239</u>	<u>73,326</u>	<u>21.94</u>	<u>64,473</u>	<u>9,501</u>
19. Buldhana	9,704	11,729	3.51	10,315	1,298
20. Akola	8,194	10,530	3.15	9,257	1,755
21. Amravati	10,557	12,114	3.63	10,667	1,419
22. Yavatmal	9,632	11,904	3.56	10,461	1,677
23. Wardha	6,586	7,391	2.21	6,494	890
24. Nagpur	8,892	9,103	2.72	7,993	1,650
25. Bhandara	8,277	8,857	2.65	7,787	1,221
26. Chandrapur	9,652	10,749	3.22	9,462	1,746
<u>VIDARBHA</u>	<u>71,494</u>	<u>82,377</u>	<u>24.65</u>	<u>72,436</u>	<u>11,656</u>
<u>MAHARASHTRA STATE</u>	<u>293,862</u>	<u>334,142</u>	<u>100.00</u>	<u>293,862</u>	<u>66,969</u>
<u>(excl. G.B.)</u>	<u>293,720</u>	<u>333,996</u>		<u>293,744</u>	<u>56,563</u>

* GVA : Gross Value of Agriculture (Proper).

(Cont'd)

Statement - 1. (Concid)
Net State Domestic Product from Agriculture by
Districts based on Gross Value of Agriculture (Proper)
adjusted for seasonal variations (Rs. Lakh)

District	Total Gross Value of Agriculture & Animal Husbandry (Col.5 + Col.6)	Total Inputs	Net Prod- uct from Agricul- ture (Proper) and Animal Husbandry (Col.7 minus Col.8)	Net Pro- duct from Allied Activi- ties	Net S.D.P. from Agriculture (Col.9 + Col.10)
1	7	8	9	10	11
1. Greater Bombay	10,524	16	10,508	6	10,514
2. Thane	8,288	2,220	6,068	8	6,076
3. Raigad	7,151	2,027	5,124	75	5,199
4. Ratnagiri	11,832	3,419	8,413	17	8,430
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	<u>27,271</u>	<u>7,666</u>	<u>19,605</u>	<u>100</u>	<u>19,705</u>
5. Nashik	18,361	5,202	13,159	399	13,558
6. Dhule	12,873	4,021	8,852	256	9,108
7. Jalgaon	24,585	5,059	19,526	288	19,814
8. Ahmednagar	22,168	5,961	16,207	861	17,068
9. Pune	22,227	4,414	17,813	912	18,725
10. Satara	14,419	2,968	11,451	347	11,798
11. Sangli	14,858	3,055	11,803	168	11,971
12. Solapur	16,082	3,869	12,213	453	12,666
13. Kolhapur	19,397	4,472	14,925	22	14,947
<u>WESTERN MAHARASHTRA</u>	<u>164,970</u>	<u>39,021</u>	<u>125,949</u>	<u>3,706</u>	<u>129,655</u>
14. Aurangabad	18,111	5,171	12,940	379	13,319
15. Parbhani	14,611	3,617	10,994	116	11,110
16. Beed	11,374	3,008	8,366	82	8,448
17. Nanded	11,361	2,800	8,561	123	8,684
18. Osmanabad	18,517	4,121	14,396	215	14,611
<u>MARATHWADA</u>	<u>73,974</u>	<u>18,717</u>	<u>55,257</u>	<u>915</u>	<u>56,172</u>
19. Buldhana	11,613	3,129	8,484	43	8,527
20. Akola	11,012	2,995	8,017	49	8,066
21. Amravati	12,086	2,899	9,187	24	9,211
22. Yavatmal	12,138	3,429	8,709	85	8,794
23. Wardha	7,384	1,849	5,535	55	5,590
24. Nagpur	9,643	2,870	6,773	164	6,937
25. Bhandara	9,008	3,223	5,785	702	6,487
26. Chandrapur	11,208	4,265	6,943	473	7,416
<u>VIDARBHA</u>	<u>84,092</u>	<u>24,659</u>	<u>59,433</u>	<u>1,595</u>	<u>61,028</u>
<u>MAHARASHTRA STATE</u>	<u>360,831</u>	<u>90,079</u>	<u>270,752</u>	<u>6,322</u>	<u>277,074</u>
<u>(excl. G.B.)</u>	<u>350,307</u>	<u>90,063</u>	<u>260,244</u>	<u>6,316</u>	<u>266,560</u>

Note: 1) The Statement is to be read along with the covering Note.
 ii) The Statement is based on the set of estimates of NSDP at current prices presented in the Economic Survey of Maharashtra, 1982-83.

Statement - 2.

Net State Domestic Product from Commodity and Non-Commodity
Producing Sectors by Districts 1978-79
(At Current Prices) (Rs. Lakh)

District	Agriculture	Forestry	Fishing	Mining
1	2	3	4	5
1.Greater Bombay	10,514	-	3,322	4
2.Thane	6,076	524	2,274	103
3.Raigad	5,199	102	486	3
4.Ratnagiri	8,430	52	868	329
<u>KONKAN</u>				
(excl. G.B.)	19,705	678	3,628	435
5.Nashik	13,558	341	12	1
6.Dhule	9,108	204	18	1
7.Jalgaon	19,814	54	6	1
8.Ahmednagar	17,068	27	12	*
9.Pune	18,725	29	236	4
10.Satara	11,798	23	46	*
11.Sangli	11,971	11	30	*
12.Solapur	12,666	5	31	1
13.Kolhapur	14,947	47	76	55
<u>WESTERN MAHARASHTRA</u>	129,655	741	467	63
14.Aurangabad	13,319	13	63	1
15.Parbhani	11,110	6	42	*
16.Beed	8,448	3	44	*
17.Nanded	8,684	51	40	*
18.Osmanabad	14,611	-	24	*
<u>MARATHWADA</u>	56,172	73	213	1
19.Buldhana	8,527	30	12	*
20.Akola	8,066	32	25	3
21.Amravati	9,211	634	18	1
22.Yavatmal	8,794	407	47	77
23.Wardha	5,590	58	30	1
24.Nagpur	6,937	224	45	955
25.Bhandara	6,487	330	174	233
26.Chandrapur	7,416	1,392	170	756
<u>VIDARBHA</u>	61,028	3,107	521	2,026
<u>MAHARASHTRA STATE</u>	277,074	4,599	8,149	2,529
<u>MAHARASHTRA STATE</u>				
(excl. G.B.)	266,560	4,599	4,829	2,525

(Cont'd.)

Statement - 2.

Net State Domestic Product from Commodity and Non-Commodity
Producing Sectors by Districts 1978-79
 (At Current Prices) (Rs. Lakh)

District	Registered Manufactur- ing	Un- registered Manufactur- ing	Gas & Water Supply	Total
1	6	7	8	9
1. Greater Bombay	126,474	9,977	519	150,810
2. Thane	45,308	6,027	131	60,443
3. Raigad	4,270	1,005	45	11,110
4. Ratnagiri	175	1,295	24	11,173
<u>KONKAN</u>				
(excl. G.B.)	<u>49,753</u>	<u>8,327</u>	<u>200</u>	<u>82,726</u>
5. Nashik	3,098	3,084	61	20,155
6. Dhule	739	1,289	30	11,389
7. Jalgaon	1,639	1,699	45	23,258
8. Ahmednagar	2,448	2,754	57	22,366
9. Pune	21,795	3,836	272	44,897
10. Satara	1,331	1,711	45	14,954
11. Sangli	1,812	1,930	49	15,803
12. Solapur	2,496	4,414	59	19,672
13. Kolhapur	2,725	4,253	126	22,229
<u>WESTERN MAHARASHTRA</u>	<u>38,083</u>	<u>24,970</u>	<u>744</u>	<u>194,723</u>
14. Aurangabad	1,228	1,512	31	16,167
15. Parbhani	62	1,091	71	12,382
16. Beed	36	959	52	9,542
17. Nanded	536	1,094	28	10,433
18. Osmanabad	244	1,383	20	16,282
<u>MARATHWADA</u>	<u>2,106</u>	<u>6,039</u>	<u>202</u>	<u>64,806</u>
19. Buldhana	151	856	28	9,604
20. Akola	998	1,115	22	10,261
21. Amravati	504	1,064	36	11,468
22. Yavatmal	273	987	24	10,609
23. Wardha	621	741	11	7,052
24. Nagpur	3,077	3,530	71	14,839
25. Bhandara	498	4,604	4	12,330
26. Chandrapur	1,566	1,622	28	12,950
<u>VIDARBHA</u>	<u>7,688</u>	<u>14,519</u>	<u>224</u>	<u>89,113</u>
<u>MAHARASHTRA STATE</u>	<u>224,104</u>	<u>63,832</u>	<u>1,889</u>	<u>582,178</u>
<u>(excl. G.B.)</u>	<u>97,630</u>	<u>53,855</u>	<u>1,370</u>	<u>431,368</u>

(Cont'd.)

Statement - 2.

Net State Domestic Product from Commodity and Non-Commodity
Producing Sectors by Districts 1978-79
(At Current Prices) (Rs. Lakh)

District	Transport and Storage	Communi- cation	Trade, Hotels and Restau- rants	Banking and Insur- ance	Ownership of Dwell- ings, Real Estate, Business Services
1	10	11	12	13	14
1. Greater Bombay	20,499	3,142	51,081	17,213	8,675
2. Thane	2,003	554	8,525	992	1,364
3. Raigad	432	114	2,690	330	450
4. Ratnagiri	489	244	2,980	407	594
<u>KONKAN</u>					
(excl. G.B.)	<u>2,924</u>	<u>912</u>	<u>14,195</u>	<u>1,729</u>	<u>2,408</u>
5. Nashik	1,271	272	5,176	854	882
6. Dhule	471	125	3,279	384	579
7. Jalgaon	1,193	281	4,810	544	813
8. Ahmednagar	571	224	4,461	634	795
9. Pune	2,696	681	11,220	2,448	1,445
10. Satara	746	177	3,386	646	640
11. Sangli	722	151	3,381	711	581
12. Solapur	966	212	6,404	747	847
13. Kolhapur	899	181	4,888	1,012	811
<u>WESTERN MAHARASHTRA</u>	<u>9,535</u>	<u>2,304</u>	<u>47,005</u>	<u>7,980</u>	<u>7,393</u>
14. Aurangabad	533	128	3,461	443	751
15. Parbhani	287	74	2,658	249	556
16. Beed	244	68	1,990	156	441
17. Nanded	344	79	3,031	328	524
18. Osmanabad	321	106	3,368	331	644
<u>MARATHWADA</u>	<u>1,729</u>	<u>455</u>	<u>14,508</u>	<u>1,507</u>	<u>2,916</u>
19. Buldhana	327	74	2,338	234	478
20. Akola	729	158	3,077	440	613
21. Amravati	689	157	3,117	415	628
22. Yavatmal	370	98	2,561	181	472
23. Wardha	356	63	1,499	198	317
24. Nagpur	2,112	595	6,603	1,022	1,019
25. Bhandara	498	104	2,703	158	551
26. Chandrapur	438	86	2,235	173	678
<u>VIDARBHA</u>	<u>5,519</u>	<u>1,335</u>	<u>24,133</u>	<u>2,821</u>	<u>4,756</u>
<u>MAHARASHTRA STATE</u>	<u>40,206</u>	<u>8,148</u>	<u>150,922</u>	<u>31,250</u>	<u>26,148</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	<u>19,707</u>	<u>5,006</u>	<u>99,841</u>	<u>14,037</u>	<u>17,473</u>

(Cont'd.)

Statement - 2. (Concl'd.)

Net State Domestic Product from Commodity and Non-Commodity
Producing Sectors by Districts 1978-79
(At Current Prices) (Rs. Lakh)

District	Public Admini- strat- ion	Other Servi- ces	Total	Grand Total Col.9 + Col.17	Popula- tion '000'	Per Capita in (Rs.) Col.18 Col.19
1	15	16	17	18	19	20
1.Greater Bombay	6,649	13,803	121,062	271,872	7,749	3,508
2.Thane	1,282	3,208	17,928	78,371	3,142	2,494
3.Raigad	518	1,121	5,655	16,765	1,400	1,197
4.Ratnagiri	863	1,980	7,557	18,730	1,984	944
<u>KONKAN</u>						
(excl. G.B.)	2,663	6,309	31,140	113,866	6,526	1,745
5.Nashik	1,314	2,268	12,037	32,192	2,811	1,145
6.Dhule	655	1,513	7,006	18,395	1,931	952
7.Jalgaon	806	2,097	10,544	33,802	2,469	1,369
8.Ahmednagar	1,093	2,169	9,947	32,313	2,551	1,267
9.Pune	3,627	4,732	26,849	71,746	3,922	1,830
10.Satara	890	1,917	8,402	23,356	1,920	1,217
11.Sangli	635	1,759	7,940	23,743	1,719	1,381
12.Solapur	811	2,600	12,587	32,259	2,457	1,313
13.Kolhapur	885	2,156	10,832	33,061	2,351	1,406
<u>WESTERN MAHARASHTRA</u>	<u>10,716</u>	<u>21,211</u>	<u>106,144</u>	<u>300,867</u>	<u>22,131</u>	<u>1,360</u>
14.Aurangabad	968	1,468	7,752	23,919	2,298	1,041
15.Parbhani	518	1,018	5,360	17,742	1,719	1,032
16.Beed	376	830	4,105	13,647	1,400	975
17.Nanded	423	1,129	5,858	16,291	1,648	988
18.Osmanabad	557	1,755	7,082	23,364	2,097	1,114
<u>MARATHWADA</u>	<u>2,842</u>	<u>6,200</u>	<u>30,157</u>	<u>94,963</u>	<u>9,162</u>	<u>1,036</u>
19.Buldhana	523	1,255	5,229	14,833	1,417	1,047
20.Akola	583	1,491	7,091	17,352	1,719	1,010
21.Amravati	605	1,667	7,278	18,746	1,748	1,072
22.Yavatmal	480	1,191	5,353	15,962	1,636	976
23.Wardha	490	880	3,803	10,855	874	1,242
24.Nagpur	1,574	3,950	16,875	31,714	2,433	1,304
25.Bhandara	459	1,325	5,798	18,128	1,731	1,047
26.Chandrapur	713	1,165	5,488	18,438	1,937	952
<u>VIDARBHA</u>	<u>5,427</u>	<u>12,924</u>	<u>56,915</u>	<u>146,028</u>	<u>13,495</u>	<u>1,082</u>
<u>MAHARASHTRA STATE</u>	<u>28,297</u>	<u>60,447</u>	<u>345,418</u>	<u>927,596</u>	<u>59,063</u>	<u>1,570</u>
<u>MAHARASHTRA STATE</u> (excl. G.B.)	<u>21,648</u>	<u>46,644</u>	<u>224,356</u>	<u>655,724</u>	<u>51,314</u>	<u>1,278</u>

Note:- 1) The Statement is to be read along with the covering Note.
ii) Totals may not add up due to rounding of figures.
iii) The Statement is based on the set of estimates of NSDP at current prices presented in the Economic Survey of Maharashtra, 1982-83.

* Negligible.

CHAPTER V

DEVELOPMENT EXPENDITURE IN DISTRICTS

5.1. Our terms of reference require us to review the development expenditure incurred in different districts beginning with 1960 upto the latest year for which relevant data may be available. The task has proved more difficult than was probably anticipated when our terms of reference were formulated. In the circumstances, we are sorry that it has not been possible for us to review the development expenditure incurred in the districts in its totality nor trace such a review as far back as 1960. Hence, to indicate the adequacy or otherwise of what we have been able to do, we may begin by explaining the accounting framework of the expenditure of the State Government and to what extent and in what manner the total expenditure of the Government may be broken up districtwise.

Expenditure of State Government:

5.2. In Table 5.1. we give the pattern of expenditure of the Government of Maharashtra from 1961-62 to 1983-84. It will be noticed that the total expenditure is broadly divided into two classes: Non Development Expenditure and Development Expenditure. Development Expenditure is catagorised as Plan and Non-Plan. Further, a portion of Plan Expenditure is incurred outside the budget of the State Government such as through the MSEB, MSRTC, etc. For instance, the expenditure in 1981-82 was as under:

	<u>Rs. in crore</u>
Non-Development Expenditure	641.41
Plan Expenditure (through budget)	892.13
Plan Expenditure (outside budget)	218.34
Total Plan Expenditure	1,110.47
Non-Plan Development Expenditure	1,095.83
Total Development Expenditure	2,206.30
Total Expenditure (through budget)	2,629.37

Our interest lies in the total Development Expenditure, i.e. Plan Expenditure through and outside the budget, and the Non-Plan Development Expenditure. In 1981-82, this amounted to Rs.2,206.30 crore.

5.3. The difference between the Plan Expenditure and the Non-Plan Development Expenditure needs some explanation. In principle and practice, the Plan Expenditure consists of the expenditure undertaken during a Plan period for creation of new or expansion of old assets, developmental facilities, and services. But it also includes the expenditure on maintenance of the services during the Plan period in which these were created.

TABLE 5.1

Pattern of Government Expenditure, 1961-62 to 1983-84

(Rs. Crore)

Year	Non-Develop-ment Expendi- ture	PLAN EXPENDITURE			Non-Plan Develop-ment Expendi- ture through Budget	Cols.(5) + (6)
		Through Budget	Outside Budget	Cols.(3) + (4)		
1	2	3	4	5	6	7
1961-62	80.39	53.52	1.56	55.08	54.12	109.20
1962-63	74.70	58.73	0.43	59.16	85.48	144.64
1963-64	80.67	77.94	1.10	79.04	107.65	186.69
1964-65	83.38	78.78	2.28	81.06	97.72	178.78
1965-66	93.06	132.15	9.24	141.39	152.17	293.56
1966-67	193.29	103.61	12.02	115.63	158.10	273.73
1967-68	111.24	111.86	11.76	123.62	167.40	291.02
1968-69	132.57	126.78	19.57	146.35	179.81	326.16
1969-70	418.21	115.49	28.67	144.16	213.33	357.49
1970-71	393.35	143.25	25.01	168.26	246.78	415.04
1971-72	363.96	163.07	35.76	198.83	306.11	504.94
1972-73	207.05	213.59	21.29	234.88	322.24	557.12
1973-74	272.84	226.25	32.13	258.38	434.73	693.11
1974-75	255.27	244.22	56.76	300.98	371.15	672.13
1975-76	278.32	305.16	80.43	385.59	543.29	928.88
1976-77	310.31	448.81	65.60	514.41	439.50	953.91
1977-78	314.90	578.86	98.21	677.07	441.97	1,119.04
1978-79	421.51	689.66	92.32	781.98	557.99	1,339.97
1979-80	417.12	709.95	102.28	812.23	706.11	1,518.34
1980-81	497.93	769.09	137.37	906.46	498.59	1,405.05
1981-82	641.41	892.13	218.34	1,110.47	1,095.83	2,206.30
1982-83 RE	722.65	1,165.97	191.70	1,357.67	1,222.31	2,579.98
1983-84 BE	823.23	1,275.55	224.45	1,500.00	1,312.52	2,812.52

RE - Revised Estimate

BE - Budget Estimate

On the other hand, the Non-Plan Development Expenditure consists of expenditure on management and maintenance of assets created upto the end of the previous year. It also includes expenditure on maintenance of services created upto the end of the previous plan. The latter is called the "committed expenditure". Further, the Non-Plan Development Expenditure includes Central portion in the Centrally sponsored/assisted schemes; the Central assistance is generally 100 per cent in the Centrally sponsored schemes and 50 per cent in the Centrally assisted schemes. For instance, the Drought-Prone Area Programme (DPAP) is a Centrally assisted programme with 50 per cent of the expenditure borne by the Central Government. In such a case, while the State Government's part of the expenditure is treated as Plan Expenditure, the Central Government's part is treated as Non-Plan Development Expenditure. For these several reasons, we shall take into account, as far as possible, both the Plan and the Non-Plan Development Expenditure. Our concern is to see how much of it can be broken up and shown districtwise.

Plan Expenditure:

5.4. We shall first consider the Plan Expenditure. With the introduction of the district level planning in 1974-75, the district level plan schemes of the State Government came to be monitored through the District Planning and Development Councils (DPDCs). In Chapter XVII, we shall give a fuller account of the functioning of these bodies and the plan schemes which are classified as district level schemes and are monitored through the DPDCs. Here, in Table 5.2, we give districtwise expenditure on the district level schemes yearwise for the period from 1974-75 to 1982-83. In Col.11 of the Table is given the total expenditure for the period 1974-83. In Col.12 the same is expressed per capita of the 1981 population. It will be noticed that the per capita expenditure, in nine years 1974-83, in the State works out to Rs.436.98. It is the highest in Konkan (Rs.503.06), followed by Marathwada (Rs.489.19) and Vidarbha (Rs.477.98). It was the lowest in Western Maharashtra (Rs.430.72). It was very low in the districts with large urban population: Greater Bombay (Rs.266.19), Pune (Rs.292.88), Kolhapur (Rs.316.48) and Nagpur (Rs.383.96). It was high in the under-developed districts of Dhule (Rs.589.33), Yavatmal (Rs.562.04), and Beed (Rs.547.84) but also in Wardha (Rs.542.51).

5.5. In the bottom line of the Table, the total expenditure of the district level schemes is shown as percentage of the total Plan Expenditure of the State Government. It will be noticed that this percentage varies from year to year. In 1975-76, it was the highest being 46.37 per cent. In other years, it varied from 36.0 to 43.0 per cent. For the entire period 1974-83, the district level plan schemes accounted for 40.06 per cent of the Plan Expenditure of the State Government. As mentioned above, this expenditure is monitored through the DPDCs. Hence, its districtwise break-up is readily available.

TABLE 5.2

Expenditure on District Level Schemes, 1974-75 to 1982-83

(Rs. Crore)

District	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1	2	3	4	5	6	7
1. Greater Bombay	7.67	20.09	25.79	22.54	30.34	19.62
2. Thane	5.97	9.88	9.41	9.80	13.16	14.25
3. Raigad	4.86	6.49	5.69	6.15	6.25	5.22
4. Ratnagiri	3.13	5.86	6.65	10.22	11.83	11.36
<u>KONKAN</u>						
<u>(excluding G.B)</u>	<u>13.96</u>	<u>22.23</u>	<u>21.75</u>	<u>26.17</u>	<u>31.24</u>	<u>30.83</u>
5. Nashik	6.51	8.05	10.75	12.36	19.92	21.86
6. Dhule	3.24	6.57	9.18	10.14	10.50	13.96
7. Jalgaon	6.07	7.50	10.17	9.12	11.89	11.78
8. Ahmednagar	7.45	8.27	11.85	11.08	11.48	18.90
9. Pune	4.12	5.54	9.02	13.74	16.40	15.53
10. Satara	3.06	4.28	5.67	7.22	8.79	10.94
11. Sangli	4.23	4.00	5.54	7.15	7.80	8.10
12. Solapur	7.22	6.20	10.64	11.82	13.00	13.04
13. Kolhapur	4.02	5.92	6.79	8.50	8.38	8.57
<u>WESTERN MAHARASHTRA</u>	<u>45.92</u>	<u>56.33</u>	<u>79.61</u>	<u>91.13</u>	<u>108.16</u>	<u>122.68</u>
14. Aurangabad	7.59	7.74	12.32	11.92	11.49	11.74
15. Parbhani	3.30	4.17	6.37	8.67	8.86	10.96
16. Beed	3.75	5.19	6.92	6.90	7.85	9.38
17. Nanded	3.17	4.93	7.72	9.28	6.89	8.34
18. Osmanabad	6.04	7.93	10.26	13.32	10.68	11.00
<u>MARATHWADA</u>	<u>23.85</u>	<u>29.96</u>	<u>43.59</u>	<u>50.09</u>	<u>45.77</u>	<u>51.42</u>
19. Buldhana	2.97	4.98	4.70	5.88	7.54	7.37
20. Akola	4.46	7.76	7.12	7.49	7.97	10.09
21. Amravati	4.94	5.34	5.70	7.42	9.20	9.11
22. Yavatmal	4.35	5.25	7.78	9.83	8.67	8.70
23. Wardha	2.48	3.42	3.15	4.45	5.46	5.86
24. Nagpur	5.18	6.72	7.22	9.53	10.02	9.53
25. Bhandara	5.29	10.65	7.30	5.76	8.70	13.48
26. Chandrapur	3.77	6.07	6.29	7.87	10.84	12.87
<u>VIDARBHA</u>	<u>33.44</u>	<u>50.19</u>	<u>49.26</u>	<u>58.23</u>	<u>68.40</u>	<u>77.01</u>
<u>Total District</u>						
<u>Plan Expenditure</u>	<u>124.84</u>	<u>178.80</u>	<u>220.00</u>	<u>248.16</u>	<u>283.91</u>	<u>301.56</u>
<u>Total Annual Plan</u>						
<u>Expenditure</u>	<u>300.98</u>	<u>385.59</u>	<u>514.41</u>	<u>677.07</u>	<u>781.98</u>	<u>812.23</u>
Percentage of District Plan to Annual Plan	41.47	46.37	42.76	36.65	36.30	37.12

(Cont'd.)

TABLE 5.2(Concl'd)

Expenditure on District Level Schemes, 1974-75 to 1982-83

(Rs. Crore)

District	1980-81	1981-82	1982-83	Total Expenditure 1974-83	Per Capita Expenditure (Rs.)
1	8	9	10	11	12
1. Greater Bombay	20.30	23.61	49.46	219.42	266.18
2. Thane	18.33	42.45	45.84	169.09	504.51
3. Raigad	7.63	14.25	16.07	72.61	488.48
4. Ratnagiri	14.97	19.98	23.89	107.89	511.01
<u>KONKAN</u> <u>(excluding G.B)</u>	<u>40.93</u>	<u>76.68</u>	<u>85.80</u>	<u>349.59</u>	<u>503.06</u>
5. Nashik	21.37	29.36	35.39	165.57	553.42
6. Dhule	15.18	21.94	30.12	120.83	589.33
7. Jalgaon	13.02	16.25	19.33	105.13	401.52
8. Ahmednagar	16.53	22.71	28.89	137.16	506.44
9. Pune	15.64	17.79	24.19	121.97	292.88
10. Satara	12.67	13.63	19.68	85.94	421.55
11. Sangli	9.29	14.92	18.52	79.55	434.41
12. Solapur	14.82	18.72	22.10	117.56	450.40
13. Kolhapur	9.80	12.42	14.92	79.32	316.48
<u>WESTERN MAHARASHTRA</u>	<u>128.32</u>	<u>167.74</u>	<u>213.14</u>	<u>1,013.03</u>	<u>430.72</u>
14. Aurangabad	13.89	21.22	26.00	123.91	509.20
15. Parbhani	11.55	14.58	14.67	83.13	454.42
16. Beed	10.96	15.81	14.65	81.41	547.84
17. Nanded	9.21	12.58	12.63	74.75	427.31
18. Osmanabad	12.07	18.14	22.88	112.72	505.33
<u>MARATHWADA</u>	<u>58.08</u>	<u>82.33</u>	<u>90.83</u>	<u>475.92</u>	<u>489.19</u>
19. Buldhana	9.63	11.91	12.56	67.54	447.65
20. Akola	11.57	12.46	15.78	84.70	463.61
21. Amravati	11.46	15.50	17.72	86.39	464.11
22. Yavatmal	12.46	17.65	22.96	97.65	562.04
23. Wardha	6.15	8.13	11.17	50.27	542.51
24. Nagpur	12.50	16.67	22.03	99.40	383.96
25. Bhandara	14.68	13.32	16.44	95.62	520.36
26. Chandrapur	16.10	17.15	23.04	104.00	505.92
<u>VIDARBHA</u>	<u>94.55</u>	<u>112.79</u>	<u>141.70</u>	<u>685.57</u>	<u>477.98</u>
<u>Total District</u>					
<u>Plan Expenditure</u>	<u>342.18</u>	<u>463.15</u>	<u>580.93</u>	<u>2,743.53</u>	<u>436.98</u>
<u>Total Annual Plan</u>					
<u>Expenditure</u>	<u>906.46</u>	<u>1,110.47</u>	<u>1,357.67</u>	<u>6,846.96</u>	<u>1,090.56</u>
Percentage of District Plan to Annual Plan	37.75	41.70	42.78	40.06	40.06

5.6. In the above we have shown the plan expenditure of the district level schemes districtwise. In 13 of the 25 districts (other than Greater Bombay), 48 talukas have been identified as Tribal Areas. In order to ensure that the outlay on the district level schemes falling within the Tribal Area of a district is not transferred to the Non-Tribal Area, a Tribal Area Sub-Plan is carved out of the total district level plan. It will be useful to compare the per capita expenditure on the district level schemes in the Tribal and Non-Tribal Areas of these districts. In Table 5.2A, we show the expenditure on district level schemes, in the three year period 1980-83, separately for the Tribal and Non-Tribal areas of the relevant districts. In Cols. 2 and 3, we show the 1981 population of the Tribal and the Non-Tribal areas of each district. In Cols. 4 and 5, we show the total expenditure on the district level schemes in the Tribal and Non-Tribal areas; in Cols.6 and 7, the expenditure is expressed per capita of 1981 population. It will be noticed that the per capita expenditure in the Tribal Area is over 60 per cent more than the same in the Non-Tribal area in the State as a whole. In Western Maharashtra and Marathwada, the differential is even larger; the per capita expenditure in the Tribal areas being double that in the Non-Tribal area. The differential is smaller in Vidarbha being only 50 per cent and smaller still in Konkan being less than 6 per cent.

5.7. We have carefully examined whether the expenditure on any of the State level schemes, that is schemes not monitored through the DPDCs, could be similarly broken up districtwise. We are glad to say that we have been able to obtain an approximate districtwise break-up of plan expenditure in two major sectors, namely, Major Irrigation and Power. Major Irrigation accounted for 15.62 per cent of the State's Sixth Plan Outlay and Power accounted for 34.93 per cent. In view of the large shares of these two sectors in the Plan Expenditure of the State Government, we thought it worthwhile obtaining a districtwise break-up, even if approximate, of their plan expenditure.

5.8. Medium and minor irrigation are district level schemes and plan expenditure on them is monitored through the DPDCs. As such, it is included in the expenditure on district level schemes shown in Table 5.2. But major irrigation is a State level scheme and plan expenditure on it is incurred through the Irrigation Department. Its districtwise break-up is not normally available. The districtwise break-up of the expenditure on major irrigation must not of course be done on the basis of where the expenditure is incurred; it must be done on the basis of area benefitted. We have been able to obtain an approximate districtwise break-up of plan expenditure on major irrigation on this basis for the period 1974-82. This is shown in Col.2 of Table 5.3. In Col.3 the same is expressed per capita of 1981 population. It will be noticed that the per capita expenditure on major irrigation is the highest in Marathwada (Rs.256.92), followed by Western Maharashtra (Rs.202.13), Vidarbha (Rs.73.94) and finally Konkan (Rs.39.17). There are even larger disparities within the

TABLE 5.2A

Expenditure on District Level Schemes, (1980-83) in Tribal, Non-Tribal Areas

District	1981 Population		1980-83 Expenditure		Per Capita Expenditure	
	Tribal Areas	Non-Tribal Areas	Tribal Areas	Non-Tribal Areas	Tribal Areas	Non-Tribal Areas
	([^] 000s)		(Rs. Crore)		(Rs.)	(Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	954.80	2,396.76	28.61	78.01	299.66	325.48
3. Raigad	41.40	1,445.05	2.53	35.42	611.45	245.11
4. Ratnagiri	-	-	-	-	-	-
<u>KONKAN</u>						
(excluding G.B)	996.20	3,841.81	31.14	113.43	312.59	295.25
5. Nashik	682.80	2,308.94	30.68	55.44	449.32	240.11
6. Dhule	799.60	1,250.69	29.02	38.22	362.98	305.59
7. Jalgaon	35.00	2,583.27	1.93	46.67	551.29	180.66
8. Ahmednagar	98.30	2,610.01	4.43	63.70	451.04	244.06
9. Pune	105.40	4,059.07	3.16	54.46	299.63	134.17
10. Satara	-	-	-	-	-	-
11. Sangli	-	-	-	-	-	-
12. Solapur	-	-	-	-	-	-
13. Kolhapur	-	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>1,721.10</u>	<u>12,811.98</u>	<u>69.22</u>	<u>258.49</u>	<u>402.18</u>	<u>201.76</u>
14. Aurangabad	-	-	-	-	-	-
15. Parbhani	-	-	-	-	-	-
16. Beed	-	-	-	-	-	-
17. Nanded	107.80	1,641.53	4.07	30.35	377.27	184.89
18. Osmanabad	-	-	-	-	-	-
<u>MARATHWADA</u>	<u>107.80</u>	<u>1,641.53</u>	<u>4.07</u>	<u>30.35</u>	<u>377.27</u>	<u>184.89</u>
19. Buldhana	-	-	-	-	-	-
20. Akola	-	-	-	-	-	-
21. Amravati	139.60	1,722.35	9.28	35.40	664.94	205.53
22. Yavatmal	334.50	1,402.92	8.14	44.93	243.43	320.26
23. Wardha	-	-	-	-	-	-
24. Nagpur	65.10	2,523.71	4.04	47.16	620.83	186.87
25. Bhandara	169.30	1,668.28	4.46	39.98	263.49	239.65
26. Chandrapur	758.00	1,297.64	24.83	31.46	327.52	242.44
<u>VIDARBHA</u>	<u>1,466.50</u>	<u>8,614.90</u>	<u>50.75</u>	<u>198.93</u>	<u>346.06</u>	<u>230.91</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excluding G.B.)	4,291.60	26,910.22	155.18	601.20	361.59	223.41

TABLE 5.3

Expenditure on Major Irrigation, Power, and Package Scheme of Incentives

District	Expenditure on Major Irrigation 1974-82 (Rs. Crore)	Per Capita Expenditure of Col.(2) (Rs.)	Expenditure on Power Sector 1974-82 (Rs. Crore)	Per Capita Expenditure of Col.(4) (Rs.)	Package Scheme of Incentives 1974-83 (Rs. Crore)	Per Capita Expenditure of Col.(6) (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	483.22	586.19	-	-
2. Thane	21.05	62.81	189.73	566.09	13.29	39.64
3. Raigad	4.51	30.34	50.58	340.30	7.78	52.33
4. Ratnagiri	1.66	7.86	7.86	37.21	2.56	12.13
KONKAN						
(excluding G.B)	27.22	39.17	248.17	357.11	23.63	34.00
5. Nashik	28.79	96.23	35.12	117.39	9.40	31.40
6. Dhule	1.35	6.53	21.91	106.88	1.16	5.63
7. Jalgaon	36.20	138.26	41.10	156.99	2.25	8.61
8. Ahmednagar	57.80	213.42	47.61	175.79	6.31	23.30
9. Pune	73.89	177.43	104.33	250.52	2.52	6.04
10. Satara	49.21	241.38	28.81	141.32	1.13	5.54
11. Sangli	48.74	266.16	23.76	129.76	1.11	6.10
12. Solapur	129.25	495.18	32.56	124.74	1.92	7.35
13. Kolhapur	50.17	200.17	64.22	256.23	2.67	10.65
WESTERN MAHARASHTRA	475.40	202.13	399.43	169.83	28.47	12.10
14. Aurangabad	32.35	132.53	42.61	175.10	5.90	24.23
15. Parbhani	93.70	512.20	17.97	98.20	0.09	0.50
16. Beed	61.29	412.44	9.91	66.72	0.18	1.20
17. Nanded	50.69	289.77	11.10	63.45	0.58	3.34
18. Osmanabad	11.92	53.44	17.98	80.62	0.57	2.54
MARATHWADA	249.95	256.92	99.57	102.35	7.32	7.52
19. Buldhana	0.46	3.05	9.24	61.25	0.30	1.98
20. Akola	-	-	12.03	65.84	1.35	7.40
21. Amravati	22.57	121.25	8.65	46.46	0.41	2.19
22. Yavatmal	8.67	49.90	9.08	52.28	0.27	1.56
23. Wardha	7.32	79.00	6.17	66.62	0.17	1.89
24. Nagpur	42.59	164.52	42.59	164.52	4.30	16.59
25. Bhandara	21.29	115.86	15.65	85.17	1.05	5.69
26. Chandrapur	3.16	15.37	41.51	201.95	2.73	13.30
VIDARBHA	106.06	73.94	144.93	101.05	10.58	7.38
MAHARASHTRA STATE	858.63	157.43	1,375.31	219.05	69.99	12.83
MAHARASHTRA STATE						
(excluding G.B.)	858.63	157.43	897.09	163.57	69.99	12.83

regions: Parbhani (Rs.512.20) compared to Osmanabad (Rs.53.44) and Solapur (Rs.495.18) compared to Dhule (Rs.6.58).

5.9. In the case of the Power Sector, the Schemes of Rural Electrification (expansion and normal development), Electrification of Harijan Bastis, Systems Improvement, and schemes financed through the Rural Electrification Corporation are considered district level schemes. As such, expenditure on them is included in the expenditure in district level schemes shown in Table 5.2. These account for only 7.42 per cent of the Sixth Plan outlay of the Power Sector. The other schemes of the Power Sector, such as Generation (both Hydro and Thermal), Replacement, Renovation of Plant and Machinery, Transmission and Distribution are State level schemes and plan expenditure on them is incurred by the Energy Department (through the Maharashtra State Electricity Board). The total expenditure on these schemes for the period 1974-81, was Rs.892.10 crore. We thought it would be appropriate to allocate this to different districts on the basis of increase in the consumption of electricity between 1973-74 and 1981-82. (See Table 4.6, Col.4).

5.10. In Col.4 of Table 5.3, we show the plan expenditure on State level schemes of the Power Sector for the period 1974-81 so broken up districtwise. In Col.5, the same is expressed per capita of 1981 population. It will be seen that the per capita expenditure of the Power Sector, as we have derived it, is the highest in Konkan (Rs.357.11), followed by Western Maharashtra (Rs.169.83), Marathwada (Rs.102.35) and Vidarbha (Rs.101.05). Districtwise, it is the highest in Thane (Rs.566.09), followed by Raigad (Rs.340.30); and the lowest is in Ratnagiri (Rs.37.21), all in Konkan.

5.11. Yet another State level scheme of which we could obtain a districtwise break-up was the Package Scheme of Incentives to industries in underdeveloped areas. The plan expenditure on the scheme is incurred by the Industries Department (through the State Industrial & Investment Corporation - SICOM). It constitutes only 0.73 per cent of the Sixth Plan outlay. But, its districtwise break-up was readily available. In Col.6 of Table 5.3, we show the districtwise expenditure on the scheme for the period 1974-83. In Col.7, the same is expressed per capita of 1981 population. The following districts are above State Average (Rs.12.83): Raigad (Rs.52.33), Thane (Rs.39.64), Nashik (Rs.31.40), Aurangabad (Rs.24.23), Ahmednagar (Rs.23.30), Nagpur (Rs.16.59) and Chandrapur (Rs.13.30).

5.12. To sum up, in our effort to obtain a districtwise break-up of Plan Expenditure of the State Government, we have achieved the following: (a) We have given districtwise break-up of the district level schemes for the period 1974-82; they account for about 40.00 per cent of the Plan Expenditure of the State Government. (b) We have given an approximate districtwise break-up of Major Irrigation, which is a State level scheme, for the period 1974-82; it accounts for about 15.50 per cent of the Plan Expenditure of the State Government. (c) We have given an

approximate districtwise break-up of the State level expenditure of the Power Sector for the period 1974-82; it accounts for about 27.50 per cent of the Plan Expenditure of the State Government. (d) Finally, we have given the districtwise break-up of the Package Scheme of Incentives for industries for the period 1974-83; it accounts for about 0.75 per cent of the Plan Expenditure. Thus, altogether, we are able to give the districtwise break-up of about 81.37 per cent of the Plan Expenditure of the State Government. In this, we could cover only the period beginning with 1974-75 and, except in the case of the district level schemes, we could not give the districtwise break-up year by year.

5.13. We might usefully bring these data together. We shall consider the period 1974-82 (for the Package Scheme of Incentives, we shall take the period 1974-83). The Plan Expenditure covered by us is as under:

<u>Plan Expenditure : 1974-82</u> (Rs. crore)	
District Level Schemes	2,162.60
Major Irrigation	858.63
Power Sector	1,375.31
Package Scheme of Incentives (for 1974-83)	69.99
Total Plan Expenditure covered	4,466.53
Total Plan Expenditure	5,489.29

Thus, of the total Plan Expenditure of Rs.5,489.29 crore, we are able to cover about Rs.4,466.53 crore, which is 81.37 per cent of the total. Hence, it may not be entirely inappropriate to compare the per capita Plan Expenditure in the districts on the basis of the expenditure we have been able to cover. In Table 5.4, we give, for the period 1974-82, the per capita expenditure on (i) District Level Schemes, (ii) Major Irrigation, (iii) Power Sector, and (iv) Package Scheme of Incentives (1974-83). In Col.6 of the Table the per capita expenditure on the four items is added up.

5.14. It will be seen that the average per capita expenditure (for the above period and the above mentioned items) is Rs.733.76 for the whole State and Rs.699.18 for the State excluding Greater Bombay. Regionwise, the per capita expenditure is Rs.809.87 in Konkan, Rs.762.62 in Marathwada, Rs.724.16 in Western Maharashtra, and Rs. 561.55 in Vidarbha. There are large disparities between the districts. In the following, we list the districts in descending order of per capita Plan Expenditure on the four items for the period 1974-82:

<u>Districts Above State Average</u> (Rs.699.18)	(Rs.)	<u>Districts Below State Average</u> (Rs.699.18)	(Rs.)
Thane	1,036.28	Nashik	680.15
Solapur	993.00	Pune	668.79

TABLE 5.4

Per Capita Plan Expenditure, 1974-82

(In Rupees)

District	District Level Schemes	Major Irrigation	Power Sector	Package Scheme of Incentives*	Total
1	2	3	4	5	6
1. Greater Bombay	206.18	-	586.19	-	792.37
2. Thane	367.74	62.81	566.09	39.64	1,036.28
3. Raigad	380.36	30.34	340.30	52.33	803.33
4. Ratnagiri	297.86	7.86	37.21	12.13	455.06
<u>KONKAN</u>					
(excluding G.B.)	<u>379.59</u>	<u>39.17</u>	<u>357.11</u>	<u>34.00</u>	<u>809.87</u>
5. Nashik	435.13	96.23	117.39	31.40	680.15
6. Dhule	442.42	6.58	106.88	5.63	561.51
7. Jalgaon	327.70	138.26	156.99	8.61	631.56
8. Ahmednagar	399.77	213.42	175.79	23.30	812.28
9. Pune	234.80	177.43	250.52	6.04	668.79
10. Satara	325.01	241.38	141.32	5.54	713.25
11. Sangli	333.28	266.16	129.76	6.10	735.30
12. Solapur	365.73	495.18	124.74	7.35	993.00
13. Kolhapur	256.95	200.17	256.23	10.65	724.00
<u>WESTERN MAHARASHTRA</u>	<u>340.10</u>	<u>202.13</u>	<u>169.83</u>	<u>12.10</u>	<u>724.16</u>
14. Aurangabad	402.36	132.53	175.10	24.23	734.22
15. Parbhani	374.23	512.20	98.20	0.50	985.13
16. Beed	449.25	412.44	66.72	1.20	929.61
17. Nanded	355.11	289.77	63.45	3.34	711.67
18. Osmanabad	402.76	53.44	80.62	2.54	539.36
<u>MARATHWADA</u>	<u>395.83</u>	<u>256.92</u>	<u>102.35</u>	<u>7.52</u>	<u>762.62</u>
19. Buldhana	364.40	3.05	61.25	1.98	430.68
20. Akola	377.24	-	65.84	7.40	450.48
21. Amravati	368.91	121.25	46.46	2.19	538.81
22. Yavatmal	429.89	49.90	52.28	1.56	533.63
23. Wardha	421.96	79.00	66.62	1.89	569.47
24. Nagpur	298.86	164.52	164.52	16.59	644.49
25. Bhandara	430.89	115.86	85.17	5.69	637.61
26. Chandrapur	393.84	15.37	201.95	13.30	624.66
<u>VIDARBHA</u>	<u>379.18</u>	<u>73.94</u>	<u>101.05</u>	<u>7.38</u>	<u>561.55</u>
<u>MAHARASHTRA STATE</u>	<u>344.45</u>	<u>157.43</u>	<u>219.05</u>	<u>12.83</u>	<u>733.76</u>
<u>(excluding G.B.)</u>	<u>365.35</u>	<u>157.43</u>	<u>163.57</u>	<u>12.83</u>	<u>699.18</u>

* 1974 - 83.

Parbhani	985.13	Nagpur	644.49
Beed	929.61	Bhandara	637.61
Ahmednagar	812.28	Jalgaon	631.56
Raigad	803.33	Chandrapur	624.66
Sangli	735.30	Wardha	569.47
Aurangabad	734.22	Dhule	561.51
Kolhapur	724.00	Osmanabad	539.36
Satara	713.25	Amravati	538.81
Nanded	711.67	Yavatmal	533.63
		Ratnagiri	455.06
		Akola	450.48
		Buldhana	430.68

5.15. It will be noticed that in Thane, Raigad, and partly in Kolhapur, the per capita Plan Expenditure is above the State Average because the per capita expenditure on Power is above the average. In Solapur, Parbhani, Beed, Ahmednagar, Sangli, Satara, Nanded, and partly Kolhapur, the per capita Plan Expenditure is above the State Average because the per capita expenditure on Major Irrigation is above the average. In Aurangabad, the per capita Plan Expenditure is above the State Average because the expenditure on District Level Schemes is above the average.

5.16. All the districts of Vidarbha have the per capita Plan Expenditure below the State Average. In all of them, except Nagpur, the per capita expenditure both on Major Irrigation and Power is below the State Average. The same is true of Ratnagiri in Konkan, Nashik and Dhule in Western Maharashtra, and Osmanabad in Marathwada. In Pune district, the per capita Plan Expenditure is below the State Average because the per capita expenditure on District Level Schemes is below the average. The same is true of Nagpur. In Jalgaon the per capita expenditure on District Level Schemes, Major Irrigation, and Power all are a little below the average.

Non-Plan Expenditure:

5.17. We may next turn to the Non-Plan Development Expenditure. This is incurred by the respective departments through their controlling officers at various levels. The expenditure on particular schemes is incurred through various vertically separate implementing agencies at different horizontal levels. The system of accounting of expenditure in Government does not require its maintenance by districts and hence consolidated districtwise figures are not available. The expenditure is booked through the district treasuries; but a particular expenditure may pertain to more than one district depending upon the jurisdiction of the officer sanctioning the payment. Hence, it is not possible to reconstruct the districtwise expenditure from treasurywise expenditure. Finally, the Non-Plan Expenditure consists of both Developmental and Non-developmental (purely administrative) expenditure; but it is not shown thus classified as this is not required. In brief, districtwise figures of Non-Plan Development Expenditure are not available.

5.18. In the circumstance, we requested a number of departments to give us the districtwise break-up of their Non-Plan Development Expenditure for two years 1969-70 and 1979-80. As the original accounts are not maintained districtwise, it proved very laborious to obtain a districtwise break-up of the expenditure in 1969-70 and only a few departments could do it. But a number of departments gave us the districtwise break-up of their expenditure in 1979-80 as best as they could compile it. In Table 5.5, we give an abstract of the information so obtained for 1979-80. It will be seen that, in the aggregate, we could get districtwise break-up of 83.55 per cent of the Non-Plan Development Expenditure of the State Government, though only for one year 1979-80.

5.19. In Table 5.6, we give the districtwise Non-Plan Development Expenditure of the several departments for the year 1979-80. In Table 5.6A, the same is expressed per capita of 1981 population. It will be seen that, in the aggregate, the per capita expenditure varies from Rs.143.75 in Sangli and Rs.126.70 in Dhule to Rs.50.70 in Thane and Rs.49.78 in Chandrapur. There are similarly large variations in the districtwise per capita expenditure of several departments. But, we are unwilling to offer any comments; first, because we have not been able to ascertain from the respective departments the basis on which they obtained a districtwise break-up of their expenditure and, second, because the break up is available for only one year. Nevertheless, in view of the large disparities between districts it shows, we suggest that the matter should be examined in depth so that the Non-Plan Development Expenditure of the State Government may be regularly compiled on a comparable basis and suitably published.

5.20. With the establishments of Zilla Parishads in 1962, certain subjects within the jurisdiction of the State Government were transferred to the Zilla Parishads. In addition, the Zilla Parishads were asked to execute on an agency basis certain schemes and programmes in subjects not transferred to them. In consequence, a part of the expenditure of the State Government began to be incurred through the Zilla Parishads and the Panchayat Samitis under them. In Table 5.7, we give this expenditure from 1967-68 to 1979-80. We are sorry that we have not been able to obtain data for the first five years of the Zilla Parishads, namely from 1962-63 to 1966-67.

5.21. A classification of the total expenditure of the Zilla Parishads, including that of the Panchayat Samitis, into the three classes, namely, Non-Plan Non-Development, Non-Plan Development, and Plan Expenditure is not available. However, it is known that it consists mainly of Development Expenditure, both Plan and Non-Plan. For 1981-82, we have been able to obtain the break-up between Plan and Non-Plan Expenditure. In 1981-82, the total expenditure of the Zilla Parishads amounted to Rs.257.64 crore of which Rs.23.27 crore was Plan Expenditure and Rs.234.37 was Non-Plan Expenditure. Thus, the Plan Expenditure constituted 9.03 per cent of the total expenditure. This

TABLE 5.5

Non-Plan Development Expenditure, 1979 - 80

Sector	Expenditure (Rs. Lakh)
1	2
1. Agriculture	1,254.52
2. Animal Husbandry	780.42
3. Dairy Development	17,507.94
4. Primary Education	13,960.30
5. Secondary Education	10,934.47
6. Pre-University/University and Other Education Programmes	4,123.64
7. Technical Education	369.91
8. Urban Development	1,742.40
9. Roads and Bridges	2,118.91
10. Major and Medium Irrigation	969.20
11. Industrial Training Institutes	455.14
12. Medical Education and Drugs	4,774.84
T O T A L :	58,991.69
TOTAL NON-PLAN DEVELOPMENT EXPENDITURE :	70,611.00

TABLE 5.6

Districtwise Non-Plan Development Expenditure, 1979-80

(Rs. Lakh)

District	Agri- culture	Animal Husbandry	Dairy Develop- ment	Primary Educat- ion	Secondary Education	Pre-Univer- sity/Univer- sity and Other Edu- cation Programme	Technical Education
1	2	3	4	5	6	7	8
1. Greater Bombay	-	6.10	9,477.07	279.10	1,673.56	700.47	96.31
2. Thane	47.14	19.99	114.50	611.15	441.16	125.96	-
3. Raigad	22.14	15.18	125.15	523.26	208.19	45.49	-
4. Ratnagiri	136.64	41.62	181.50	916.48	329.87	70.13	14.14
KONKAN							
(excluding G.B)	220.68*	76.79	421.15	2,050.89	979.22	241.58	14.14
5. Nashik	33.38	30.79	506.30	685.55	498.45	178.15	-
6. Dhule	25.62	36.94	1,289.52	536.77	343.06	120.18	12.86
7. Jalgaon	25.17	22.35	93.43	802.29	511.99	192.47	18.20
8. Ahmednagar	42.96	28.44	422.86	766.88	445.64	164.46	-
9. Pune	38.13	68.32	1,046.59	942.67	793.54	273.58	55.14
10. Satara	28.45	21.82	43.46	722.94	385.89	194.92	16.77
11. Sangli	19.28	36.25	1,072.00	633.82	356.10	162.16	-
12. Solapur	29.10	27.52	540.77	661.67	409.98	310.27	21.92
13. Kolhapur	26.71	32.76	652.41	647.55	425.25	181.33	19.79
WESTERN MAHARASHTRA	349.96*	305.19	5,667.34	6,400.14	4,169.90	1,777.52	144.68
14. Aurangabad	40.23	48.34	321.08	502.70	339.21	170.87	17.93
15. Parbhani	38.07	31.30	61.10	387.54	189.04	45.63	-
16. Beed	22.74	24.53	337.59	306.77	211.51	88.28	-
17. Nanded	28.63	23.83	85.25	344.43	237.68	50.87	9.70
18. Osmanabad	28.79	28.26	500.35	545.13	383.57	135.39	9.79
MARATHWADA	198.76*	156.26	1,305.37	2,086.57	1,361.01	491.04	37.42
19. Buldhana	51.39	15.27	86.63	386.41	160.24	59.56	14.74
20. Akola	52.11	22.64	238.92	467.30	339.92	76.20	-
21. Amravati	44.03	42.29	107.08	484.58	418.19	217.67	23.94
22. Yavatmal	47.11	25.89	-	413.76	246.87	78.23	10.37
23. Wardha	42.16	14.03	1.45	235.88	217.62	52.67	3.50
24. Nagpur	54.13	63.18	-	472.13	726.82	310.12	24.81
25. Bhandara	22.73	22.69	174.34	459.84	296.34	64.51	-
26. Chandrapur	39.03	30.09	28.29	421.70	244.78	81.07	-
VIDARBHA	485.12*	236.08	636.71	3,341.60	2,650.78	940.03	77.36
MAHARASHTRA STATE	1,254.52*	780.42	17,507.61	13,960.30	10,934.47	4,123.64	369.91
MAHARASHTRA STATE							
(excluding G.B.)	1,254.52*	774.32	8,030.57	13,681.20	9,260.91	3,423.17	273.60
				(?)	(?)		

(?) Totals need checking.

* Inclusive of Expenditure on the region as a whole.

(Cont'd.)

TABLE 5.6(Concl'd)

Districtwise Non-Plan Development Expenditure, 1979-80

(Rs. Lakh)

District	Urban Develop- ment	Roads & Bridges	Major & Minor Irriga- tion	Industrial Training Institutes	Medical Education & Drugs	Total
1	9	10	11	12	13	14
1. Greater Bombay	10.98	0.14	-	45.13	2,480.81	14,769.67
2. Thane	163.55	63.39	-	17.02	95.62	1,699.48
3. Raigad	39.51	67.75	0.42	16.77	2.36	1,066.22
4. Ratnagiri	33.22	98.36	12.04	13.83	4.30	1,852.13
KONKAN (excluding G.B.)	236.28	229.50	12.46	47.62	102.28	4,632.59
5. Nashik	138.90	20.74	67.93	1.59	28.90	2,190.88
6. Dhule	63.61	107.51	22.06	25.32	14.33	2,597.78
7. Jalgaon	132.50	77.43	61.42	16.93	9.75	1,963.93
8. Ahmednagar	74.19	168.34	132.09	15.06	8.39	2,269.31
9. Pune	92.33	129.61	80.99	54.21	376.88	3,951.99
10. Satara	59.44	102.80	52.74	37.92	17.80	1,684.95
11. Sangli	57.45	107.70	20.48	0.83	166.39	2,632.46
12. Solapur	64.45	135.41	75.59	17.36	289.75	2,583.79
13. Kolhapur	64.50	72.93	31.57	29.84	24.38	2,209.02
WESTERN MAHARASHTRA	747.37	992.67	544.87	199.09	936.57	22,235.30
14. Aurangabad	75.90	113.22	57.13	17.49	300.45	2,004.55
15. Parbhani	74.42	77.14	71.39	9.19	6.18	991.50
16. Beed	24.06	75.82	20.61	9.41	132.28	1,253.60
17. Nanded	41.42	80.67	41.86	12.80	42.73	999.87
18. Osmanabad	43.80	85.46	18.70	11.37	5.10	1,795.71
MARATHWADA	259.60	432.31	209.69	60.26	486.74	7,085.03
19. Buldhana	62.34	49.61	11.79	16.89	5.14	920.01
20. Akola	102.77	56.49	19.54	12.62	24.33	1,412.84
21. Amravati	79.39	46.99	1.46	9.28	21.30	1,496.20
22. Yavatmal	52.05	68.55	13.13	9.20	16.22	981.38
23. Wardha	41.77	33.10	15.87	8.29	38.05	704.39
24. Nagpur	76.08	42.32	30.54	25.21	648.29	2,464.63
25. Bhandara	39.80	45.82	72.69	10.80	10.22	1,219.78
26. Chandrapur	33.97	91.55	37.16	10.75	4.89	1,023.28
VIDARBHA	488.17	434.43	202.18	103.04	768.44	10,363.94
MAHARASHTRA STATE	1,742.40	2,118.91	969.20	455.14	4,774.84	58,991.36
MAHARASHTRA STATE (excluding G.B.)	1,731.42	2,118.77(?)	969.20	410.01	2,294.03	44,221.69

(?) Totals need checking.

* Inclusive of additional expenditure under Agriculture on the region as a whole

TABLE 5.6A

Per Capita Non-Plan Development Expenditure, 1979-80

(Rs.)

District	Agri- culture	Animal Husbandry	Dairy Develop- ment	Primary Educat- ion	Secondary Education	Pre-Univer- sity/Univer- sity and Other Edu- cation Programme	Technical Education
1	2	3	4	5	6	7	8
1. Greater Bombay	-	0.07	114.97	3.39	20.30	8.50	1.17
2. Thane	1.41	0.60	3.42	18.23	13.16	3.76	-
3. Raigad	1.49	1.02	8.42	35.20	14.00	3.06	-
4. Ratnagiri	6.47	1.97	8.60	43.41	15.62	3.32	0.67
<u>KONKAN</u>							
(excluding G.B.)	3.18	1.10	6.06	29.41	14.09	3.48	0.20
5. Nashik	1.12	1.03	16.92	22.91	16.66	5.95	-
6. Dhule	1.25	1.80	62.89	26.18	16.73	5.86	0.63
7. Jalgaon	0.96	0.85	3.57	30.64	19.55	7.35	0.70
8. Ahmednagar	1.59	1.05	15.61	28.32	16.45	6.07	-
9. Pune	0.92	1.64	25.13	22.63	19.06	6.57	1.32
10. Satara	1.40	1.07	2.13	35.46	18.93	0.82	0.82
11. Sangli	1.05	1.98	58.54	34.61	19.45	8.86	-
12. Solapur	1.11	1.05	20.72	25.35	15.71	11.89	0.84
13. Kolhapur	1.07	1.31	26.03	25.84	16.97	7.23	0.79
<u>WESTERN MAHARASHTRA</u>	1.49	1.30	24.10	27.21	17.73	7.56	0.62
14. Aurangabad	1.65	1.99	13.19	20.66	13.94	7.02	0.74
15. Parbhani	2.08	1.71	3.34	21.18	10.33	2.49	-
16. Beed	1.53	1.65	22.72	20.64	14.23	5.94	-
17. Nanded	1.64	1.36	4.87	19.69	13.59	2.91	0.55
18. Osmanabad	1.29	1.27	22.43	24.44	17.20	6.07	0.44
<u>MARATHWADA</u>	2.04	1.61	13.42	21.45	13.99	5.05	0.38
19. Buldhana	3.41	1.01	5.74	25.61	10.62	3.95	0.98
20. Akola	2.85	1.24	13.08	25.58	18.61	4.17	-
21. Amravati	2.37	2.27	5.75	26.03	22.47	11.69	1.29
22. Yavatmal	2.71	1.49	-	23.81	14.21	4.50	0.60
23. Wardha	4.55	1.51	0.16	25.46	23.49	5.68	0.38
24. Nagpur	2.09	2.44	-	18.24	28.08	11.98	0.96
25. Bhandara	1.24	1.23	9.49	25.02	16.13	3.51	-
26. Chandrapur	1.90	1.46	1.38	20.51	11.91	3.94	-
<u>VIDARBHA</u>	3.38	1.65	4.44	23.30	18.48	6.55	0.54
<u>MAHARASHTRA STATE</u>	2.00	1.24	27.89	22.24	17.42	6.57	0.59
<u>MAHARASHTRA STATE</u> (excluding G.B.)	2.30	1.42	14.72	25.08	16.98	6.28	0.50

(Cont'd.)

TABLE 5.6A(Concl'd)

Per Capita Non-Plan Development Expenditure, 1979-80

(Rs.)

District	Urban Develop- ment	Roads & Bridges	Major & Minor Irriga- tion	Industrial Training Institutes	Medical Education & Drugs	Total
1	9	10	11	12	13	14
1. Greater Bombay	0.13	neg	-	0.54	30.09	179.16
2. Thane	4.88	1.89	-	0.50	2.85	50.70
3. Raigad	2.66	4.56	0.03	1.12	0.16	71.78
4. Ratnagiri	1.57	4.66	0.57	0.64	0.20	87.71
<u>KONKAN</u>						
<u>(excluding G.B)</u>	<u>3.40</u>	<u>3.30</u>	<u>0.18</u>	<u>0.68</u>	<u>1.47</u>	<u>66.66</u>
5. Nashik	4.64	0.70	2.27	0.05	0.97	73.23
6. Dhule	6.77	1.02	3.31	1.23	1.41	126.70
7. Jalgaon	5.06	2.96	2.35	0.23	0.37	74.59
8. Ahmednagar	2.74	6.22	4.88	0.55	0.31	83.78
9. Pune	2.22	3.11	1.94	1.30	9.05	94.90
10. Satara	29.16	5.04	2.59	1.86	0.87	82.65
11. Sangli	3.14	5.88	1.12	0.04	9.09	143.75
12. Solapur	2.47	5.19	2.90	0.66	11.10	98.98
13. Kolhapur	2.57	2.91	1.26	1.21	0.97	88.16
<u>WESTERN MAHARASHTRA</u>	<u>3.18</u>	<u>4.22</u>	<u>2.32</u>	<u>0.84</u>	<u>3.98</u>	<u>94.53</u>
14. Aurangabad	3.12	4.65	2.35	1.10	12.35	82.76
15. Parbhani	4.07	4.22	3.90	0.55	0.34	54.25
16. Beed	1.62	5.10	1.39	0.66	8.90	84.69
17. Nanded	2.37	4.61	2.39	0.73	2.44	57.16
18. Osmanabad	1.96	3.83	0.84	1.10	0.23	81.09
<u>MARATHWADA</u>	<u>2.67</u>	<u>4.44</u>	<u>2.16</u>	<u>0.61</u>	<u>5.00</u>	<u>72.82</u>
19. Buldhana	4.13	3.29	0.78	1.11	0.34	60.97
20. Akola	5.63	3.09	1.07	0.69	1.33	77.33
21. Amravati	4.27	2.52	0.08	0.49	1.14	80.37
22. Yavatmal	3.00	3.95	0.76	0.52	0.93	56.51
23. Wardha	4.51	3.57	1.71	0.89	4.11	76.01
24. Nagpur	2.94	1.64	1.18	0.97	25.04	95.20
25. Bhandara	2.17	2.49	3.96	0.58	0.56	66.37
26. Chandrapur	1.65	4.45	1.81	0.52	0.24	49.78
<u>VIDARBHA</u>	<u>3.40</u>	<u>3.03</u>	<u>1.41</u>	<u>0.71</u>	<u>5.36</u>	<u>72.25</u>
<u>MAHARASHTRA STATE</u>	<u>2.78</u>	<u>3.37</u>	<u>1.54</u>	<u>0.75</u>	<u>7.61</u>	<u>93.98</u>
<u>MAHARASHTRA STATE</u>						
<u>(excluding G.B.)</u>	<u>3.17</u>	<u>3.88</u>	<u>1.78</u>	<u>0.72</u>	<u>4.21</u>	<u>81.05</u>

TABLE 5.7

Expenditure by Zilla Parishads

(Rs. Lakh)

District	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
1	2	3	4	5	6	7	8
1. Greater Bombay	-	-	-	-	-	-	-
2. Thane	304.37	345.10	337.23	385.83	398.01	457.68	507.17
3. Raigad	243.15	275.04	303.71	327.07	308.78	376.34	461.92
4. Ratnagiri	422.79	490.91	432.11	546.24	545.43	653.86	699.35
KONKAN							
(excluding G.B)	970.31	1,111.05	1,073.05	1,259.14	1,252.22	1,487.88	1,668.44
5. Nashik	386.36	441.02	429.54	499.89	538.72	811.65	1,273.78
6. Dhule	301.61	347.47	351.49	392.65	452.12	555.51	720.51
7. Jalgaon	349.62	454.22	531.48	564.16	684.90	654.36	831.13
8. Ahmednagar	381.92	456.83	472.66	523.43	745.91	1,317.37	1,797.43
9. Pune	466.00	516.83	442.85	533.23	687.78	902.16	1,046.31
10. Satara	408.25	463.35	444.47	509.50	532.69	557.73	620.10
11. Sangli	286.63	330.63	336.58	361.98	442.97	512.37	496.03
12. Solapur	327.50	386.17	361.50	438.38	459.13	511.82	557.86
13. Kolhapur	319.83	381.05	376.66	432.88	419.15	470.42	498.36
WESTERN MAHARASHTRA	3,227.72	3,777.57	3,747.23	4,256.10	4,963.37	6,293.39	7,841.51
14. Aurangabad	298.52	346.90	386.65	428.10	463.55	487.54	534.88
15. Parbhani	219.68	255.23	301.41	371.81	356.55	365.87	415.04
16. Beed	200.72	235.87	265.33	301.55	342.41	617.38	916.01
17. Nanded	249.75	284.28	312.35	379.10	496.67	393.42	413.88
18. Osmanabad	307.34	350.74	379.44	447.86	483.76	533.59	547.02
MARATHWADA	1,276.01	1,473.02	1,645.18	1,928.42	2,142.94	2,397.80	2,826.83
19. Buldhana	339.35	286.30	289.18	346.23	314.19	329.87	357.86
20. Akola	303.19	351.69	340.26	419.13	383.34	386.65	455.66
21. Amravati	310.47	352.08	347.66	415.48	389.06	407.73	469.28
22. Yavatmal	279.14	312.77	314.98	373.83	352.42	404.17	452.74
23. Wardha	179.91	213.79	181.76	191.30	187.70	224.60	235.36
24. Nagpur	360.67	408.40	279.44	327.14	322.25	363.32	414.72
25. Bhandara	293.49	331.40	299.57	367.05	383.79	417.98	438.81
26. Chandrapur	268.36	333.69	369.00	368.40	356.66	391.73	428.98
VIDARBHA	2,334.58	2,590.12	2,421.85	2,808.56	2,689.41	2,926.05	3,253.41
Total District Expenditure	7,754.63	8,951.76	8,864.44	10,252.22	11,048.46	13,105.12	15,588.19
	(?)		(?)		(?)		(?)
Total Non-Plan Development Expenditure	16,740.00	17,981.00	21,333.00	24,678.00	30,611.00	32,224.00	43,473.00
Percentage of District Expenditure to Total Non-Plan Development Expenditure	46.32	49.78	41.55	41.54	36.09	40.67	35.86

(?) Totals need checking.

(Cont'd.)

TABLE 5.7(Concl'd)

Expenditure by Zilla Parishads							(Rs. Lakh)
District	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	
1	9	10	11	12	13	14	
1. Greater Bombay	-	-	-	-	-	-	
2. Thane	525.88	682.41	659.34	663.90	834.32	903.74	
3. Raigad	466.74	573.08	579.98	589.82	738.31	826.33	
4. Ratnagiri	763.06	906.11	973.01	961.96	1,358.52	1,368.60	
KONKAN							
(excluding G.B)	1,755.68	2,161.60	2,212.33	2,215.68	2,931.15	3,098.67	
5. Nashik	654.17	730.20	791.22	816.92	999.15	1,061.94	
6. Dhule	546.95	646.57	687.82	720.05	873.72	877.72	
7. Jalgaon	716.13	871.55	920.83	896.92	1,166.40	1,207.84	
8. Ahmednagar	738.13	785.60	928.30	870.80	1,044.55	1,151.69	
9. Pune	706.52	884.65	908.03	944.80	1,130.25	1,207.92	
10. Satara	678.78	796.07	889.49	959.13	1,120.59	1,138.47	
11. Sangli	544.77	633.96	659.10	686.89	811.74	926.49	
12. Solapur	627.90	689.83	723.78	738.77	951.08	955.10	
13. Kolhapur	562.46	687.17	739.07	772.57	983.11	990.67	
WESTERN MAHARASHTRA	5,775.81	6,725.60	7,247.64	7,406.85	9,080.59	9,517.84	
14. Aurangabad	594.05	687.77	732.79	676.83	998.28	971.63	
15. Parbhani	448.70	547.99	590.79	537.71	725.44	871.65	
16. Beed	399.90	467.28	510.92	485.07	718.65	709.33	
17. Nanded	441.17	555.53	601.44	543.96	829.47	842.52	
18. Osmanabad	605.72	717.37	838.81	813.60	1,085.04	1,098.06	
MARATHWADA	2,489.54	2,975.94	3,274.75	3,057.17	4,356.88	4,493.19	
19. Buldhana	444.46	531.44	569.31	535.76	701.46	698.11	
20. Akola	489.93	650.55	647.52	595.10	864.87	800.91	
21. Amravati	485.16	640.60	672.85	625.27	884.87	867.31	
22. Yavatmal	464.16	553.54	615.89	532.43	784.95	800.77	
23. Wardha	260.62	303.63	351.20	307.21	438.25	442.96	
24. Nagpur	440.70	555.51	550.58	505.51	725.74	747.53	
25. Bhandara	449.96	544.54	561.17	540.83	834.77	839.37	
26. Chandrapur	465.17	576.51	598.48	619.77	776.60	844.47	
VIDARBHA	3,500.16	4,356.32	4,567.00	4,261.88	6,011.51	6,041.43	
Total District Expenditure	13,521.29	16,215.72	17,301.72	16,971.75	22,401.12	23,151.13	
		(?)		(?)	(?)		
Total Non-Plan Development Expenditure	37,115.00	54,329.00	43,950.00	44,197.00	55,799.00	70,611.00	
Percentage of District Expenditure to Total Non-Plan Development Expenditure	36.43	29.85	39.37	38.40	40.15	32.79	

(?) Totals need checking.

percentage varied greatly between districts: for instance, it was 6.11 per cent in Ratnagiri-Sindhudurg and 12.66 per cent in Raigad; it was 5.25 per cent in Ahmednagar and 9.20 per cent in Pune; it was 4.49 per cent in Parbhani and 13.66 per cent in Beed; and it was 7.93 per cent in Wardha and 17.76 per cent in Nagpur.

5.22. A major part of the expenditure of the Zilla Parishads is met from grants from the State Government; but a small part is met from the resources raised by the Zilla Parishads. It has not been possible for us to get the break-up. Presumably, the own resources of the Zilla Parishads constitute only a small part, probably only about 5 per cent, of their total finances. Hence, in the following, we shall neglect the distinction and suppose that all expenditure of the Zilla Parishads is met from grants from the State Government. As mentioned above, we shall also suppose that all expenditure of the Zilla Parishads is Development Expenditure.

5.23. In the bottom line of Table 5.7, the total expenditure of the Zilla Parishads is shown as percentage of the total Non-Plan Development Expenditure of the State Government. It will be seen that the Zilla Parishad expenditure as a percentage of the total Non-Plan Development expenditure was somewhat high in 1967-68 (46.32 per cent) and 1968-69 (49.78 per cent); but since then, it has fluctuated between 35 and 40 per cent.

5.24. In view of the rather small coverage of the Non-Plan Development expenditure by the Zilla Parishads, it would not be proper to draw any firm conclusions therefrom. Nevertheless, in Table 5.7A, we have expressed the Zilla Parishad expenditure in different districts per capita of the rural population. We have divided the period into two sub-periods: 1967-74 and 1974-80. It will be noticed that the per capita expenditure of the Zilla Parishads during 1967-74 was Rs.217.76. Regionwise, it was Rs.234.41 in Western Maharashtra, Rs.214.01 in Vidarbha, Rs.201.02 in Konkan, and Rs.199.20 in Marathwada. Within the regions, there were large differences between the districts: Rs.282.29 in Ahmednagar compared to Rs.180.27 in Kolhapur; Rs.279.03 in Nagpur compared to Rs.170.86 in Chandrapur; Rs.253.27 in Beed compared to Rs.180.70 in Parbhani and Rs.179.45 in Aurangabad. During 1974-80, the per capita expenditure of the Zilla Parishads was Rs.268.48. Regionwise, it was Rs.282.85 in Konkan, Rs.271.12 in Vidarbha, Rs.266.62 in Western Maharashtra, and Rs.259.80 in Marathwada. Within the regions, there were again large differences between the districts: Rs.326.29 in Ratnagiri compared to Rs.228.89 in Thane; Rs.317.11 in Amravati and Rs.314.91 in Nagpur compared to Rs.216.34 in Chandrapur; Rs.314.88 in Satara compared to Rs.244.89 in Nashik; the disparities in Marathwada were smaller, the per capita expenditure ranging from Rs.273.32 in Osmanabad to Rs.245.87 in Aurangabad.

5.25. We have presented as much of the Plan Expenditure and the Non-Plan Expenditure of the State Government broken up

TABLE 5.7A

Expenditure by Zilla Parishads

District	Total Expenditure	Per Capita of 1971 Rural Population of Col.(2)	Total Expenditure	Per Capita of 1981 Rural Population of Col.(4)
	1967-74 (Rs. Lakh)	(Rs.)	1974-80 (Rs. Lakh)	(Rs.)
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	2,735.39	188.01	4,269.59	228.89
3. Raigad	2,296.01	206.77	3,774.26	295.65
4. Ratnagiri	3,790.69	207.89	6,331.26	326.29
KONKAN				
(excluding G.B)	8,822.09	201.02	14,375.11	282.85
5. Nashik	4,380.96	259.11	5,053.60	244.89
6. Dhule	3,121.36	227.10	4,352.83	263.79
7. Jalgaon	4,069.87	251.08	5,779.67	294.88
8. Ahmednagar	5,695.55	282.29	5,519.07	234.16
9. Pune	4,595.16	248.62	5,782.17	263.62
10. Satara	3,536.09	235.72	5,582.53	314.88
11. Sangli	2,767.19	220.86	4,262.95	296.63
12. Solapur	3,042.36	185.82	4,686.46	254.33
13. Kolhapur	2,898.35	180.27	4,735.05	251.29
WESTERN MAHARASHTRA	34,106.89	234.41	45,754.33	266.62
14. Aurangabad	2,946.12	179.45	4,661.35	245.87
15. Parbhani	2,285.59	180.70	3,722.28	250.40
16. Beed	2,879.27	253.27	3,291.15	261.98
17. Nanded	2,529.45	216.27	3,814.09	268.32
18. Osmanabad	3,049.75	183.75	5,158.60	273.32
MARATHWADA	13,690.14	199.20	20,647.47	259.80
19. Buldhana	2,262.99	217.35	3,480.54	283.02
20. Akola	2,636.92	229.67	4,048.88	295.05
21. Amravati	2,691.76	241.08	4,176.06	317.11
22. Yavatmal	2,490.05	202.49	3,751.74	254.31
23. Wardha	1,414.42	240.36	2,103.87	302.67
24. Nagpur	2,475.94	279.03	3,525.57	314.91
25. Bhandara	2,532.09	180.21	3,770.64	236.13
26. Chandrapur	2,516.82	170.86	3,881.00	216.34
VIDARBHA	19,023.98	214.01	28,738.30	271.12
Total District Expenditure	75,564.82	217.76	109,515.21	268.48
Total Non-Plan Development Expenditure	187,040.00	539.00	306,001.00	750.18
Percentage of District Expenditure to Non Plan Development Expenditure	40.40	40.40	35.79	35.79

districtwise as we could gather. We do not think that any firm conclusion can be drawn therefrom. Hence, rather than dwelling on the disparities in development expenditure per se, we prefer, as explained in our Approach, to examine the disparities between districts and regions in physical terms, sector by sector. We shall do this in the following Chapters.

CHAPTER VI

ROAD DEVELOPMENT

6.1. Road length per 100 sq. kms. and road length per lakh population are often used as indicators of road development. They are not quite satisfactory and sometimes give even contradictory indications because neither area nor population by itself provides an adequate basis for determining the road requirements of a region or a district. What is needed is a combination of area and population which takes into account the distribution of the population over the area in habitations of various sizes such as villages and towns. In other words, an indicator of road development should be based on the actual road development compared to the needs determined by a road plan which takes into account distribution of villages and towns over the area. This is what we propose to do. As a preliminary, we shall briefly review the road plans prepared in the past and often referred to in the current discussion of the subject.

Nagpur Plan:

6.2. A plan of road development at the national level was first attempted in 1943 and is known as the Nagpur Plan. It was a plan of road development over a period of 20 years after the termination of War. For the first time, the roads were classified into the now well established categories of National Highways, State Highways, Major District Roads, Other District Roads and Village Roads. Of these, the National Highways, State Highways and the Major District Roads were called Main Roads. The other District Roads together with the Village Roads were called Other Roads. The objectives of the Nagpur Plan were : (A) In agriculturally developed areas no village should be more than 5 miles from a Main road and more than 2 miles from any Other road; (B) In agriculturally less developed areas, no village should be more than 20 miles from a Main road and more than 5 miles from any Other road. To estimate the road lengths necessary, two formulae, based on the Grid and Star Method, were used; one for the Main roads and the other for the Other roads. Road lengths within the area then under the British administration were estimated by these formulae. For the areas then under the administration of the princely states somewhat ad hoc estimates were adopted. The All-India position in 1943 and the corresponding targets to be achieved 20 years after the end of War, say by 1965, were as under:

	<u>Road lengths</u> <u>1943</u> (Miles)	<u>Nagpur Plan Targets</u> <u>1965</u> (Miles)
Main Roads	88,000	123,000
Other Roads	132,000	208,000
	-----	-----
Total :	220,000	331,000
	-----	-----

1961-81 Road Plan:

6.3. Because of the rapid development in the immediate post-war years, it appeared that the targets of the Nagpur Plan would be achieved before 1965. Hence, a new plan of road development for the period 1961-81 was prepared. This is commonly known as the 1961-81 Road Plan. The objective was to double the road length compared to the target of the Nagpur Plan. Detailed estimates were based on several formulae, using the Grid & Star Method, distinguishing areas into three categories, Developed, Semi-Developed and Under-developed, giving more road length in developed than in semi-developed and under-developed areas. Besides, targets in terms of road surfaces and bridges were also fixed. They were : (A) National Highways - 100 per cent double lane carriageway with concrete or asphalted surface complete with all bridges; (B) State Highways - As National Highways except that only 50 per cent with double-lane carriageway and 50 per cent single-lane carriageway; (C) Major District Roads - 100 per cent single-lane carriageway, 60 per cent concrete or asphalt top and 40 per cent water bound macadam (W.B.M.); all bridges complete; (D) Other District Roads - 100 per cent single-lane carriageway, with low-cost type surface such as stabilised soil or gravel; should be suitable for all weather use except at major river-crossings where low-level structures or ferries may be provided; (E) Village Roads - Single-lane carriageway with low-cost type surface; culverts on all small streams and causeways at minor river-crossings; major bridges not normally provided.

Revised 1961-81 Plan of Road Development:

6.4. The 1961-81 Road Plan, was prepared at the National level. Since then local circumstances and developmental needs had changed. Hence, the plan for the State was revised in 1976 in consultation with local representatives of the people but on a somewhat ad hoc basis. This plan is referred to as the revised 1961-81 Plan of Road Development. Further, in 1978, a crash programme of construction and improvement of Other District Roads and Village Roads was taken in hand. Later, it formed a part of the Minimum Needs Programme; its objectives were (i) To connect all villages with population 1,500 and above by all-weather W.B.M. roads before 1990 and 50 per cent of them before 1985; (ii) To connect 50 per cent of villages with population 1,000-1,500 by all-weather W.B.M. roads before 1990, half of them before 1985.

6.5. In Table 6.1, we give the relevant data about the Main Roads System (including the unsurfaced roads). In Cols.2 and 3 are given the targets in terms of the road length according to the 1961-81 Plan and the Revised 1961-81 Plan. Cols.4 and 5 show the position as on 1-4-1961 and 1-4-1981. In Cols.6 and 7, the position in 1961 and 1981 is expressed as a percentage of the target in the Revised 1961-81 Plan. In Table 6.2, we give the relevant data about the Other Roads System. In Table 6.3, we

Table 6.1

Main Roads System = National Highways + State Highways + Major District Roads (including Unsurfaced Roads)
(Length in Kilometres)

District	Target in Original 1961-81 Plan	Target in Revised 1961-81 Plan	Position as on 1-4-1961	Achievement as on 1-4-1981	Col.(4) as percentage of Col. (3)	Col.(5) as percentage of Col. (3)
1	2	3	4	5	6	7
1. Greater Bombay	-	60	13	53	21.66	88.33
2. Thane	1,549	1,751	781	1,463	44.60	83.55
3. Raigad	1,030	1,824	694	1,464	38.05	80.26
4. Ratnagiri	1,996	2,498	1,365	2,164	54.64	86.63
<u>KONKAN</u>	<u>4,575</u>	<u>6,073</u>	<u>2,840</u>	<u>5,091</u>	<u>46.76</u>	<u>83.83</u>
(excl. G.B.)						
5. Nashik	2,233	2,746	1,587	2,500	57.79	91.04
6. Dhule	1,787	2,387	997	2,272	41.77	95.18
7. Jalgaon	2,049	2,313	843	2,032	36.45	87.85
8. Ahmednagar	2,677	2,928	1,678	2,796	57.30	95.49
9. Pune	2,671	3,049	1,493	2,713	48.97	88.98
10. Satara	1,750	1,948	1,395	1,969	71.61	101.08
11. Sangli	1,767	1,983	1,239	1,970	62.48	99.34
12. Solapur	2,519	2,776	1,501	2,682	54.07	96.61
13. Kolhapur	1,543	1,905	835	1,738	43.83	91.23
<u>WESTERN MAHARASHTRA</u>	<u>18,996</u>	<u>22,035</u>	<u>11,568</u>	<u>20,672</u>	<u>52.49</u>	<u>93.81</u>
14. Aurangabad	2,312	2,637	904	2,482	34.28	94.12
15. Parbhani	1,839	2,389	468	2,149	19.59	89.95
16. Beed	1,679	1,971	624	1,905	31.66	96.65
17. Nanded	1,448	1,655	342	1,552	20.66	93.78
18. Osmanabad	2,258	2,428	687	2,333	28.29	96.08
<u>MARATHWADA</u>	<u>9,536</u>	<u>11,080</u>	<u>3,025</u>	<u>10,421</u>	<u>27.30</u>	<u>94.05</u>
19. Buldhana	1,408	1,495	740	1,368	49.50	91.50
20. Akola	1,620	1,671	768	1,580	45.96	94.55
21. Amravati	1,760	1,761	951	1,420	54.00	80.64
22. Yavatmal	1,714	1,792	962	1,707	53.68	95.26
23. Wardha	895	916	434	847	47.38	92.47
24. Nagpur	1,374	1,394	515	1,095	36.94	78.55
25. Bhandara	1,287	1,351	459	941	33.97	69.65
26. Chandrapur	2,736	2,726	899	1,932	32.98	70.87
<u>VIDARBHA</u>	<u>12,794</u>	<u>13,106</u>	<u>5,728</u>	<u>10,890</u>	<u>43.70</u>	<u>83.09</u>
<u>MAHARASHTRA STATE</u>	<u>45,901</u>	<u>52,354</u>	<u>23,174</u>	<u>47,127</u>	<u>44.26</u>	<u>90.02</u>
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>45,901</u>	<u>52,294</u>	<u>23,161</u>	<u>47,074</u>	<u>44.29</u>	<u>90.02</u>

Table 6.2

Other Roads System = Other District Roads + Village Roads
(including Unsurfaced Roads)
 (Length in Kilometres)

District	Target in Ori- ginal 1961-81 Plan	Target in Re- vised 1961-81 Plan	Position as on 1-4-1961	Achieve- ment as on 1-4-1981	Col.(4) as per- centage of Col. (3)	Col.(5) as per- centage of Col. (3)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	14	-	-	-
2. Thane	1,939	3,235	899	1,897	27.79	58.64
3. Raigad	2,091	3,641	988	2,323	27.13	63.80
4. Ratnagiri	3,885	5,579	2,466	3,327	44.20	59.63
<u>KONKAN</u>	<u>7,915</u>	<u>12,455</u>	<u>4,353</u>	<u>7,547</u>	<u>34.95</u>	<u>60.59</u>
(excl. G.B.)						
5. Nashik	2,794	4,201	672	3,571	15.99	85.00
6. Dhule	2,963	3,165	1,097	3,179	34.66	100.44
7. Jalgaon	2,817	2,968	1,821	1,382	61.35	46.56
8. Ahmednagar	3,652	3,799	1,346	3,594	35.43	94.60
9. Pune	3,294	3,705	1,132	3,628	30.55	97.92
10. Satara	2,077	2,336	1,102	2,111	47.17	90.37
11. Sangli	1,801	1,891	990	1,821	52.35	96.29
12. Solapur	3,493	3,694	570	3,384	15.43	91.61
13. Kolhapur	2,697	3,590	928	2,398	25.85	66.80
<u>WESTERN MAHARASHTRA</u>	<u>25,588</u>	<u>29,349</u>	<u>9,658</u>	<u>25,068</u>	<u>32.90</u>	<u>85.41</u>
14. Aurangabad	3,621	4,033	130	2,725	3.22	67.56
15. Parbhani	3,337	3,946	10	2,319	0.25	58.77
16. Beed	2,351	3,085	54	1,868	1.75	60.55
17. Nanded	2,698	2,930	42	2,566	1.43	87.58
18. Osmanabad	3,099	3,291	71	2,426	2.16	73.72
<u>MARATHWADA</u>	<u>15,106</u>	<u>17,285</u>	<u>307</u>	<u>11,904</u>	<u>1.78</u>	<u>68.87</u>
19. Buldhana	2,693	2,759	192	1,708	6.96	61.91
20. Akola	2,267	2,419	113	915	4.67	37.82
21. Amravati	2,550	2,739	152	917	5.55	33.48
22. Yavatmal	2,531	2,769	316	1,888	11.41	68.18
23. Wardha	1,300	1,349	104	666	7.71	49.37
24. Nagpur	1,956	2,112	269	758	12.74	35.89
25. Bhandara	2,154	2,420	235	955	9.71	39.46
26. Chandrapur	3,721	4,288	355	1,183	8.28	27.59
<u>VIDARBHA</u>	<u>19,172</u>	<u>20,855</u>	<u>1,736</u>	<u>8,990</u>	<u>8.32</u>	<u>43.11</u>
<u>MAHARASHTRA STATE</u>	<u>67,781</u>	<u>79,944</u>	<u>16,068</u>	<u>53,509</u>	<u>20.10</u>	<u>66.93</u>
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>67,781</u>	<u>79,944</u>	<u>16,054</u>	<u>53,509</u>	<u>20.08</u>	<u>66.93</u>

Table 6.3

All Roads = National Highways + State Highways + Major District Roads + Other District Roads + Village Roads
(Including Unsurfaced Roads)

(Length in Kilometres)

District	Target in Original 1961-81 Plan	Target in Revised 1961-81 Plan	Position as on 1-4-1961	Achievement as on 1-4-1981	Col.(4) as percentage of Col. (3)	Col.(5) as percentage of Col. (3)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	3,488	4,986	1,680	3,360	33.69	67.39
3. Raigad	3,121	5,465	1,682	3,787	30.78	69.30
4. Ratnagiri	5,881	8,077	3,831	5,491	47.43	67.98
<u>KONKAN</u>	<u>12,490</u>	<u>18,528</u>	<u>7,193</u>	<u>12,638</u>	<u>38.82</u>	<u>68.21</u>
(excl. G.B.)						
5. Nashik	5,027	6,947	2,259	6,071	32.52	87.39
6. Dhule	4,750	5,552	2,094	5,451	37.72	98.18
7. Jalgaon	4,866	5,281	2,664	3,414	50.44	64.65
8. Ahmednagar	6,329	6,727	3,024	6,390	44.95	94.99
9. Pune	5,965	6,754	2,625	6,341	38.87	93.89
10. Satara	3,827	4,284	2,497	4,080	58.29	95.24
11. Sangli	3,568	3,874	2,229	3,791	57.54	97.86
12. Solapur	6,012	6,470	2,071	6,066	32.01	93.76
13. Kolhapur	4,240	5,495	1,763	4,136	32.08	75.27
<u>WESTERN MAHARASHTRA</u>	<u>44,584</u>	<u>51,384</u>	<u>21,226</u>	<u>45,740</u>	<u>41.31</u>	<u>89.02</u>
14. Aurangabad	5,933	6,670	1,034	5,207	26.43	78.06
15. Parbhani	5,176	6,335	478	4,468	7.55	70.53
16. Beed	4,030	5,056	678	3,773	7.59	74.62
17. Nanded	4,146	4,585	384	4,118	8.38	89.81
18. Osmanabad	5,357	5,719	758	4,769	13.25	83.39
<u>MARATHWADA</u>	<u>24,642</u>	<u>28,365</u>	<u>3,332</u>	<u>22,325</u>	<u>11.75</u>	<u>78.71</u>
19. Buldhana	4,101	4,254	932	3,076	21.91	72.31
20. Akola	3,887	4,090	881	2,495	21.54	61.00
21. Amravati	4,310	4,500	1,103	2,337	24.51	51.93
22. Yavatmal	4,245	4,561	1,248	3,595	27.36	78.82
23. Wardha	2,195	2,265	538	1,513	23.75	66.80
24. Nagpur	3,330	3,506	784	1,853	22.36	52.84
25. Bhandara	3,441	3,771	694	1,896	18.40	50.28
26. Chandrapur	6,457	7,014	1,254	3,115	17.88	44.41
<u>VIDARBHA</u>	<u>31,966</u>	<u>33,961</u>	<u>7,464</u>	<u>19,880</u>	<u>21.98</u>	<u>58.54</u>
<u>MAHARASHTRA STATE</u>	<u>113,682</u>	<u>132,238</u>	<u>39,215</u>	<u>100,583</u>	<u>29.65</u>	<u>76.06</u>
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	113,682	132,238	39,215	100,583	29.65	76.06

give the relevant data about all roads.

6.6. It will be seen that, in 1961, the development of the Main Road System (Table 6.1) in the State as a whole (excluding Greater Bombay) in relation to the targets in the Revised 1961-81 Plan, was 44.29 per cent (Col.6). In Western Maharashtra it was above the State Average (52.49) and in Konkan (46.76) and Vidarbha (43.70) more or less on par with the State average. It lagged very far behind in Marathwada (27.30) and particularly in Parbhani (19.59) and Nanded (20.66). Between 1961 and 1981, the road length in the Main Road System in the State more than doubled and reached 90.02 per cent (Col.7) of the targets in the Revised 1961-81 Plan. The development in Marathwada was the most remarkable taking its percentage achievement (94.05) above the State average and even a little above that of Western Maharashtra (93.81). The development in both Konkan and Vidarbha lagged a little behind the State average, the percentage achievement being 83.83 per cent in Konkan and 83.09 per cent in Vidarbha; it was much behind the State average in Raigad (80.26), Amravati (80.64), and Nagpur (78.55) and much more so in Bhandara (69.65) and Chandrapur (70.87).

6.7 The initial disparities in regional development were much greater in respect of the Other Roads System comprising Other District Roads and Village Roads (Table 6.2). In the State as a whole (excluding Greater Bombay), the road length in the Other Roads System was only 20.08 per cent of the targets in the Revised 1961-81 Plan. But it was even less in Vidarbha (8.32 per cent) and almost nil (1.78) in Marathwada. Both in Konkan and Western Maharashtra it was much above the State average, the percentages being 34.95 in Konkan and 32.90 per cent in Western Maharashtra. Between 1961 and 1981 the road length in the system increased 3.33 times bringing it to 66.93 per cent of the Revised 1961-81 targets. Western Maharashtra continued to be above (85.41) the State average. But the progress in Marathwada was the most remarkable; beginning with a negligible percentage of 1.78 in 1961, it reached 68.87 in 1981 taking the development in Marathwada a little above the State average. On the other hand, Konkan, where the development in 1961 was above the State average, fell below (60.59) the State average by 1981. The development in Vidarbha also lagged behind. It began with a low of 8.32 per cent in 1961 and reached only 43.11 per cent in 1981. In all districts of Vidarbha, except Buldhana (61.91) and Yavatmal (68.18), the development of the Other Roads System in 1981 was very much below the State average.

6.8. As mentioned earlier, road connections to villages under the Minimum Needs Programme, envisage surfaced roads. In Table 6.4, we give the position of all surfaced roads as on 1-4-1981, i.e. Main Roads and Other Roads. In Cols.5 and 6 of the Table, we give the surfaced road length in each district per 100 sq.km. of area and per lakh population. We do this because, in recent discussion of the subject, these indicators have been used to assess backlog in road development. For reasons already explained, we do not propose to use them as such.

Table 6.4

Position of Surfaced Roads as on 1-4-1981

District	Area	1981	Total	Length of Surfaced Roads	
	(Sq. Kms)	Popula- tion (Lakh)	Length of Sur- faced Roads* (Kms)	Per 100 Sq. Kms. of Area (Kms)	Per Lakh of Population (Kms)
1	2	3	4	5	6
1. Greater Bombay	603	82.43	53	8.79	0.64
2. Thane	9,553	33.52	2,912	30.48	86.88
3. Raigad	7,198	14.86	2,102	29.20	141.86
4. Ratnagiri	13,040	21.11	3,967	30.42	187.89
<u>KONKAN</u>	<u>29,791</u>	<u>69.49</u>	<u>8,981</u>	<u>30.15</u>	<u>129.29</u>
(excl. G.B.)					
5. Nashik	15,582	29.92	3,392	21.77	113.38
6. Dhule	13,143	20.50	2,297	17.48	112.03
7. Jalgaon	11,771	26.18	2,267	19.26	86.58
8. Ahmednagar	17,035	27.08	3,340	19.61	123.32
9. Pune	15,640	41.64	2,765	17.68	66.40
10. Satara	10,492	20.39	2,146	20.45	105.26
11. Sangli	8,563	18.31	1,864	21.77	101.79
12. Solapur	15,021	26.10	2,657	17.69	101.80
13. Kolhapur	8,059	25.06	2,594	32.19	103.50
<u>WESTERN MAHARASHTRA</u>	<u>115,306</u>	<u>235.19</u>	<u>23,322</u>	<u>20.23</u>	<u>99.16</u>
14. Aurangabad	16,200	24.33	2,692	16.62	110.63
15. Parbhani	12,489	18.29	2,424	19.41	132.50
16. Beed	11,227	14.86	2,276	20.27	153.16
17. Nanded	10,492	17.49	2,375	22.64	135.77
18. Osmanabad	14,117	22.31	3,314	23.48	148.57
<u>MARATHWADA</u>	<u>64,525</u>	<u>97.29</u>	<u>13,081</u>	<u>20.27</u>	<u>134.46</u>
19. Buldhana	9,745	15.09	2,007	20.60	133.02
20. Akola	10,567	18.27	1,922	18.19	105.20
21. Amravati	12,210	18.61	2,028	16.61	108.95
22. Yavatmal	13,925	17.37	2,403	17.26	138.31
23. Wardha	6,307	9.27	1,251	19.84	135.01
24. Nagpur	9,928	25.89	1,539	15.50	59.45
25. Bhandara	9,214	18.38	1,410	15.30	76.73
26. Chandrapur	25,641	20.56	1,965	7.66	95.59
<u>VIDARBHA</u>	<u>97,537</u>	<u>143.43</u>	<u>14,525</u>	<u>14.89</u>	<u>101.27</u>
<u>MAHARASHTRA STATE</u>	<u>307,762</u>	<u>627.84</u>	<u>59,962</u>	<u>19.48</u>	<u>95.50</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	307,159	545.41	59,909	19.50	109.84

* Main Roads + Other Roads.

Functions of Roads System:

6.9. As indicated above, the targets set even in the Revised 1961-81 Plan are not satisfactory. In the first place, the bias in favour of the developed areas in the original 1961-81 Plan persists. Secondly, the revision was ad hoc and not based on any objective principles. Hence, we do not think it appropriate to determine the backlog of different districts on the basis of the position in relation to targets in the Revised 1961-81 Plan or on the basis of achievement in terms of road length per 100 sq. kilometers or per lakh of population. It seems possible and advisable to set the targets in road development in functional terms, to judge the position in relation to these targets and assess the backlog on that basis. This is what we propose to do.

6.10. We suggest that we may consider the two categories, Main and Other Roads, separately. Within the State, the function of the Main Roads System comprising the National Highways, State Highways and Major District Roads, is to connect a district place to the places adjoining district, connect the taluka towns to the district town and connect the taluka towns mutually. Fortunately, this is already achieved even taking into account the new districts and talukas recently created. But all the present connections are not of the desirable standards and/or via the shortest routes. We suggest that, as a minimum requirement, all roads (via shortest routes) connecting district towns, and taluka towns to the district town, should be fully asphalted with single-lane carriageway complete with bridges, so that they are all-weather roads. The roads connecting adjoining taluka towns (via shortest routes) should also be all-weather roads, but they may be W.B.M. roads. We propose to assess the backlog of different districts in the matter of this category of roads with respect to these norms.

6.11. As to Other Roads system, comprising Other District Roads and Village Roads, their primary function is to connect the villages mutually and to the Main Roads System. We suggest that they should have fully water bound makadam (W.B.M.) surface; they may not be fully bridged but culverts should be provided on all small streams, and causeways should be provided at minor river crossings. We propose to assess the backlog of different districts in the matter of this category of roads with reference to the present State level position in this respect.

Other Roads System:

6.12. We shall first consider the Other Roads System. In Table 6.5, we give relevant information. In Col.2 is given the number of villages in each district. In Col.3 is given the percentage of villages connected by a W.B.M. road as on 1-4-1983. It will be noticed that in the State there are altogether 35,778 villages and 50.22 per cent of them are so connected. We could take this as norm and measure the backlog in different districts

Table 6.5

District Backlog in the 'Other Road System' Connecting Villages
as on 31-3-1983.

	No. of Villages 1971	Percentage of Villages Connected	Percentage of Popula- tion Connected	Additi- onal No.of Villages Required to be Connected	Cost of Col.(5) (Rs. Crore)
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	1,588	75.38	86.61	-	-
3. Raigad	1,699	52.91	62.31	128	12.80
4. Ratnagiri	1,514	58.06	66.09	42	4.20
<u>KONKAN</u>	<u>4,801</u>	<u>61.96</u>	<u>71.94</u>	<u>170</u>	<u>17.00</u>
<u>excl. G.B.)</u>					
5. Nashik	1,628	40.42	59.77	207	20.70
6. Dhule	1,379	81.44	94.52	-	-
7. Jalgaon	1,423	79.69	87.98	-	-
8. Ahmednagar	1,312	63.87	75.14	-	-
9. Pune	1,481	34.98	56.22	267	26.70
10. Satara	1,142	49.82	75.56	-	-
11. Sangli	539	66.05	78.23	-	-
12. Solapur	948	62.24	72.20	-	-
13. Kolhapur	1,083	57.06	75.16	-	-
<u>WESTERN MAHARASHTRA</u>	<u>10,935</u>	<u>58.56</u>	<u>74.19</u>	<u>474</u>	<u>47.40</u>
14. Aurangabad	1,866	60.13	72.53	-	-
15. Parbhani	1,505	29.77	44.08	459	45.90
16. Beed	1,028	60.41	69.40	-	-
17. Nanded	1,324	54.15	66.69	30	3.00
18. Osmanabad	1,387	60.85	72.64	-	-
<u>MARATHWADA</u>	<u>7,110</u>	<u>52.77</u>	<u>65.81</u>	<u>489</u>	<u>48.90</u>
19. Buldhana	1,232	38.96	64.16	88	8.80
20. Akola	1,489	41.97	62.03	144	14.40
21. Amravati	1,637	32.56	61.76	190	19.00
22. Yavatmal	1,647	39.41	56.18	277	27.70
23. Wardha	962	43.24	63.17	77	7.70
24. Nagpur	1,625	35.82	52.83	343	34.30
25. Bhandara	1,500	66.27	71.23	-	-
26. Chandrapur	2,840	23.56	43.62	953	95.30
<u>VIDARBHA</u>	<u>12,392</u>	<u>40.82</u>	<u>59.00</u>	<u>2,072</u>	<u>207.20</u>
<u>MAHARASHTRA STATE</u>					
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>35,778</u>	<u>50.22</u>	<u>68.35</u>	<u>3,205</u>	<u>320.50</u>

in terms of the number of additional villages which must be connected to bring the district percentage of connected villages to the State Average (50.22). This gives greater advantage to districts with more villages per lakh of population. On the other hand, as mentioned above, the Minimum Needs Programme in this field aims at (i) connecting all villages with population 1,500 and above by all-weather W.B.M. roads before 1990 and 50 per cent of them before 1985; and (ii) connecting 50 per cent of villages with population 1,000-1,500 by all weather W.B.M. roads before 1990, half of them before 1985. We could assess the backlog in different districts in relation to these targets. However, it has been represented to us that the M.N.P. targets discriminate against the districts and areas in which a larger proportion of population lives in smaller villages. Recognising this, it seems to us more appropriate to take into account not the percentage of villages connected per se but the percentage of population connected thereby. In Col.4 of the Table, is given the percentage of the population presently connected. Thus, in the State, while 50.22 per cent of the villages are connected, 68.35 per cent of the population is connected thereby. This is estimated on the basis of the distribution of villages according to the population ranges (shown in Table 6.5A) and percentage out of them connected by roads (shown in Table 6.5B).

6.13. We suggest that the backlog of the districts should be assessed in terms of the number of additional villages that must be connected in order to bring percentage of population connected in a district to the State Average (68.35). This number of villages is shown in Col.5 of the Table. We may illustrate the calculation with reference to Chandrapur district. The present percentage of villages in Chandrapur that remain unconnected is $(100.00 - 23.56) = 76.44$. The present percentage of population in Chandrapur that is not connected is $(100.00 - 43.62) = 56.38$. Therefore, if the percentage of connected population in Chandrapur is to be raised from the present 43.62 to the State average of 68.35 that is by $(68.35 - 43.62) = 24.73$ percentage points, the additional villages to be connected in the district is given by $(24.73 \times 76.44)/56.38 = 33.52$ per cent of the villages. The number of villages in Chandrapur is 2,840. Hence, the additional number of villages to be connected in the district is given by $2,840 \times 0.3352 = 953$ and is shown in Col.5. This is the backlog of Chandrapur district in terms of villages to be connected in order to bring the percentage of connected population in that district to the State Average of 68.35. The backlog of the other districts is similarly calculated.

6.14. In Col.6 of the Table is shown the estimates of costs. This is done on the assumption that new road length of 4 km. is needed per additional village to be connected and that the cost of construction of a road of prescribed standards will be Rs.2.5 lakh per km.; in other words, the cost is estimated on the basis of Rs.10 lakh per additional village to be connected.

Table 6.5A

Distribution of Villages According to Population as in 1971

District	Villages with Population				Total
	1500 and above	1000 to 1500	500 to 1000	Below 500	
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	216	211	514	647	1,588
3. Raigad	128	158	526	887	1,699
4. Ratnagiri	396	302	464	352	1,514
<u>KONKAN</u>	<u>740</u>	<u>671</u>	<u>1,504</u>	<u>1,886</u>	<u>4,801</u>
(excl. G.B.)					
5. Nashik	281	287	535	525	1,628
6. Dhule	244	199	380	556	1,379
7. Jalgaon	299	190	450	484	1,423
8. Ahmednagar	391	276	427	218	1,312
9. Pune	345	220	387	529	1,481
10. Satara	341	183	262	356	1,142
11. Sangli	273	121	106	39	539
12. Solapur	364	210	276	98	948
13. Kolhapur	361	199	286	237	1,083
<u>WESTERN MAHARASHTRA</u>	<u>2,899</u>	<u>1,885</u>	<u>3,109</u>	<u>3,042</u>	<u>10,935</u>
14. Aurangabad	240	294	671	661	1,866
15. Parbhani	166	246	494	599	1,505
16. Beed	205	206	357	260	1,028
17. Nanded	170	224	492	438	1,324
18. Osmanabad	324	288	472	303	1,387
<u>MARATHWADA</u>	<u>1,105</u>	<u>1,268</u>	<u>2,486</u>	<u>2,261</u>	<u>7,110</u>
19. Buldhana	161	166	394	511	1,232
20. Akola	170	157	459	703	1,489
21. Amravati	145	152	382	958	1,637
22. Yavatmal	160	240	491	756	1,647
23. Wardha	65	92	254	551	962
24. Nagpur	87	96	401	1,041	1,625
25. Bhandara	282	224	454	540	1,500
26. Chandrapur	150	203	595	1,892	2,840
<u>VIDARBHA</u>	<u>1,220</u>	<u>1,330</u>	<u>3,430</u>	<u>6,952</u>	<u>12,932</u>
<u>MAHARASHTRA STATE</u>	<u>5,964</u>	<u>5,144</u>	<u>10,529</u>	<u>14,141</u>	<u>35,778</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	5,964	5,144	10,529	14,141	35,778

Table 6.5B

Percentage of Villages Connected by Roads, According to Population
as on 1-4-1983.

District	Size of the Village			Below 500	All Villages
	1500 and above	1000 to 1500	500 to 1000		
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	98	85	80	61	75.30
3. Raigad	96	64	36	54	52.91
4. Ratnagiri	70	65	53	41	58.06
<u>KONKAN</u>	<u>83</u>	<u>71</u>	<u>56</u>	<u>54</u>	<u>61.96</u>
(excl. G.B.)					
5. Nashik	85	48	24	25	40.42
6. Dhule	100	100	94	58	81.44
7. Jalgaon	73	97	69	74	79.69
8. Ahmednagar	81	92	41	42	63.87
9. Pune	70	50	23	13	64.98
10. Satara	78	55	31	16	49.82
11. Sangli	85	52	41	41	66.05
12. Solapur	81	59	47	45	62.24
13. Kolhapur	81	62	39	26	57.06
<u>WESTERN MAHARASHTRA</u>	<u>81</u>	<u>69</u>	<u>46</u>	<u>38</u>	<u>58.56</u>
14. Aurangabad	86	72	62	42	60.13
15. Parbhani	60	44	13	23	29.77
16. Beed	84	65	48	55	60.41
17. Nanded	88	55	44	44	54.15
18. Osmanabad	86	69	50	42	60.85
<u>MARATHWADA</u>	<u>82</u>	<u>61</u>	<u>45</u>	<u>39</u>	<u>52.77</u>
19. Buldhana	96	69	32	15	38.96
20. Akola	90	58	35	29	41.97
21. Amravati	97	60	33	17	32.56
22. Yavatmal	88	56	41	22	39.41
23. Wardha	100	71	48	29	43.24
24. Nagpur	85	63	34	29	35.82
25. Bhandara	81	64	59	65	66.27
26. Chandrapur	72	43	34	14	23.56
<u>VIDARBHA</u>	<u>87</u>	<u>59</u>	<u>39</u>	<u>24</u>	<u>40.82</u>
<u>MAHARASHTRA STATE</u>	<u>83</u>	<u>65</u>	<u>45</u>	<u>34</u>	<u>50.22</u>
(excl. G.B.)	83	65	45	34	50.22

Main Roads System:

6.15. Turning to the Main Roads System, connecting district and taluka towns, the backlog, as explained in para 6.10, is in terms of quality of the present roads. The cost of bringing them up to the prescribed norms for the nine categories listed below is estimated to be Rs.244.55 crore. The districtwise details are shown in Table 6.6. The total cost covering all categories is shown in Col.11 of the Table. It amounts to Rs.244.55 crore. The nine categories are as under:

- Category I : To connect a district place to all adjoining District Places by asphalt road surface.
- Category II : To construct missing C.D. works, Minor & Major Bridges on all routes leading from a District Place to all adjoining District Places.
- Category III : To connect Taluka Places to the District Headquarter by asphalt road surface.
- Category IV : To construct missing C.D. works, Minor & Major Bridges on routes leading from a Taluka Place to the District Headquarters.
- Category V : To provide water bound Mecedam road surface for routes leading from a Taluka Place to other Talukas.
- Category VI : To provide missing C.D. works, Minor & Major Bridges on routes leading from a Taluka Place to the adjoining Taluka Places.
- Category VII : To provide high level Minor/Major Bridges in place of existing submersible bridges/causeways on the routes leading from one District Place to adjoining District Places.
- Category VIII : To provide high level Minor/Major Bridges in place of existing submersible bridges/causeways on the routes leading from a Taluka Place to District Headquarters.
- Category IX : To provide high level Minor/Major Bridges in the place of existing submersible bridges/causeways on the routes leading from a Taluka Place to the adjoining Taluka Places.

6.16. Before concluding this Chapter, we like to draw attention to an important lacuna in the present roads system of the State, which will not be removed even after the removal of the backlog as defined above. While considering the Main Roads

Table 6.6

Financial Backlog in Main Roads System

(Rs. Crore)

District	Category I	Category II	Category III	Category IV	Category V
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	-	0.55	0.84	0.66
3. Raigad	0.30	2.00	0.54	0.25	1.99
4. Ratnagiri	2.90	9.17	1.01	3.30	7.20
<u>KONKAN</u>	<u>3.20</u>	<u>11.17</u>	<u>2.10</u>	<u>4.39</u>	<u>9.85</u>
(excl. G.B.)					
5. Nashik	-	0.89	-	0.03	2.05
6. Dhule	-	-	0.57	1.89	1.90
7. Jalgaon	0.15	1.27	0.42	1.05	0.29
8. Ahmednagar	0.09	1.80	-	0.81	0.27
9. Pune	-	-	0.61	0.46	4.58
10. Satara	1.30	0.16	-	0.68	0.85
11. Sangli	-	-	0.44	0.02	0.73
12. Solapur	0.17	1.89	-	2.64	-
13. Kolhapur	-	0.01	0.28	0.50	2.95
<u>WESTERN MAHARASHTRA</u>	<u>1.71</u>	<u>6.02</u>	<u>2.32</u>	<u>8.08</u>	<u>13.62</u>
14. Aurangabad	5.28	1.60	-	1.11	2.65
15. Parbhani	3.00	2.47	1.93	1.01	1.53
16. Beed	1.02	0.43	0.09	-	-
17. Nanded	-	-	0.30	0.06	0.37
18. Osmanabad	0.76	0.94	0.56	0.22	0.06
<u>MARATHWADA</u>	<u>10.06</u>	<u>5.44</u>	<u>2.88</u>	<u>2.40</u>	<u>4.61</u>
19. Buldhana	0.55	0.65	-	0.29	-
20. Akola	-	0.26	0.72	0.96	0.47
21. Amravati	-	0.03	0.25	-	2.06
22. Yavatmal	0.30	1.46	0.40	0.42	1.29
23. Wardha	0.16	0.48	0.67	0.98	0.40
24. Nagpur	-	0.01	-	0.01	0.97
25. Bhandara	0.28	-	0.53	-	0.01
26. Chandrapur	1.54	0.57	5.34	4.30	2.33
<u>VIDARBHA</u>	<u>2.83</u>	<u>3.46</u>	<u>7.91</u>	<u>6.96</u>	<u>7.53</u>
<u>MAHARASHTRA STATE</u>	<u>17.80</u>	<u>26.09</u>	<u>15.21</u>	<u>21.83</u>	<u>35.61</u>
<u>(excl. G.B.)</u>	<u>17.80</u>	<u>26.09</u>	<u>15.21</u>	<u>21.83</u>	<u>35.61</u>

- Category I : To connect a district place to all adjoining District Places by asphalt road surface.
- Category II : To construct missing C.D. works, Minor & Major bridges on all routes leading from a District Place to all adjoining District Places.
- Category III : To connect Taluka Places to the District Headquarters by asphalt road surface.
- Category IV : To construct missing C.D. works, Minor & Major bridges on routes leading from a Taluka Place to the District Headquarters.
- Category V : To provide water bound Macadam road surface for routes leading from a Taluka Place to other Talukas.

Table 6.6 (Concl'd)

Financial Backlog in Main Roads System

(Rs. Crore)

District	Category VI	Category VII	Category VIII	Category IX	Total cost of Backlog (Total of Cols.2 to 10)
1	7	8	9	10	11
1. Greater Bombay	-	-	-	-	-
2. Thane	7.55	-	-	0.42	10.02
3. Raigad	0.49	-	-	0.40	5.97
4. Ratnagiri	6.45	-	-	0.35	30.38
<u>KONKAN</u>	<u>14.49</u>	<u>-</u>	<u>-</u>	<u>1.17</u>	<u>46.37</u>
(excl. G.B.)					
5. Nashik	2.80	0.61	0.10	0.33	6.81
6. Dhule	2.69	0.20	1.15	0.60	9.00
7. Jalgaon	3.46	0.70	0.75	1.37	9.46
8. Ahmednagar	1.44	-	-	-	4.41
9. Pune	5.28	-	0.35	0.30	11.58
10. Satara	6.94	0.20	-	-	10.13
11. Sangli	1.40	0.30	0.05	0.10	3.04
12. Solapur	4.56	-	-	-	9.26
13. Kolhapur	0.94	0.25	0.58	0.35	5.86
<u>WESTERN MAHARASHTRA</u>	<u>29.51</u>	<u>2.26</u>	<u>2.98</u>	<u>3.05</u>	<u>69.55</u>
14. Aurangabad	5.53	1.45	0.45	0.10	18.17
15. Parbhani	4.90	2.25	-	-	17.09
16. Beed	0.19	0.68	-	0.20	2.61
17. Nanded	1.15	-	0.05	-	1.93
18. Osmanabad	0.82	0.70	0.24	0.30	4.60
<u>MARATHWADA</u>	<u>12.59</u>	<u>5.08</u>	<u>0.74</u>	<u>0.60</u>	<u>44.40</u>
19. Buldhana	1.35	0.95	-	1.00	4.79
20. Akola	3.20	-	0.51	0.12	6.24
21. Amravati	2.31	1.17	3.10	4.00	12.92
22. Yavatmal	5.67	4.18	0.04	-	13.76
23. Wardha	2.41	2.39	0.20	1.20	8.89
24. Nagpur	1.08	0.45	1.23	0.56	4.31
25. Bhandara	0.76	0.05	0.59	-	2.22
26. Chandrapur	10.75	0.82	3.45	2.00	31.10
<u>VIDARBIHA</u>	<u>27.53</u>	<u>10.01</u>	<u>9.12</u>	<u>8.88</u>	<u>84.23</u>
<u>MAHARASHTRA STATE</u>	<u>84.12</u>	<u>17.35</u>	<u>12.84</u>	<u>13.70</u>	<u>244.55</u>
(excl. G.B.)	84.12	17.35	12.84	13.70	244.55

Category VI : To provide missing C.D. works, Minor & Major Bridges on routes leading from a Taluka Place to the adjoining Taluka Places.

Category VII : To provide high level Minor/Major Bridges in place of existing submersible bridges/causeways on the routes leading from one District Place to adjoining District Places.

Category VIII : To provide high level Minor/Major Bridges in place of existing submersible bridges/causeways on the routes leading from a Taluka Place to District Headquarters.

Category IX : To provide high level Minor/Major Bridges in the place of existing submersible bridges/causeways on the routes leading from a Taluka Place to the adjoining Taluka Places.

Table 6.7

Estimates of Cost of Bringing to National Highway Standard
existing State Highway "Bombay-Thane-Ahmednagar-Beed-
Nanded-Bhokar-to State Border"

(Rs. Crore)

Particulars of Work	Thane Dist- rict	Pune Dist- rict	Ahmed- nagar Dist- rict	Beed Dist- rict	Parbhani District	Nanded Dist- rict	Total
1	2	3	4	5	6	7	8
1. Length in Km.	141.50	61.20	80.90	204.30	53.80	113.00	654.70
2. Widening the Formation to 12 metres	1.43	0.18	0.18	0.04	0.05	0.17	2.05
3. Widening Road Crust to two lane B.T.	1.60	1.16	0.64	1.64	0.40	1.41	6.85
4. Surface Impro- vement 2 Lanes 50 mm lean B.M. + Premix Seat Coat	2.81	2.30	2.08	5.13	1.08	3.02	16.42
5. Widening/ Reconstruct- ing C.D. Works	0.69	0.27	0.23	0.66	0.07	0.22	2.14
6. Widening/ Reconstruct- ing Minor Bridges	0.20	-	0.42	1.13	0.56	0.23	2.54
7. Widening/ Reconstruct- ing Major Bridges	3.70	-	0.83	0.60	0.10	0.01	5.24
8. Total Cost to Bring to National Highway Standard	10.43	3.91	4.38	9.20	2.26	5.06	35.24

Table 6.8

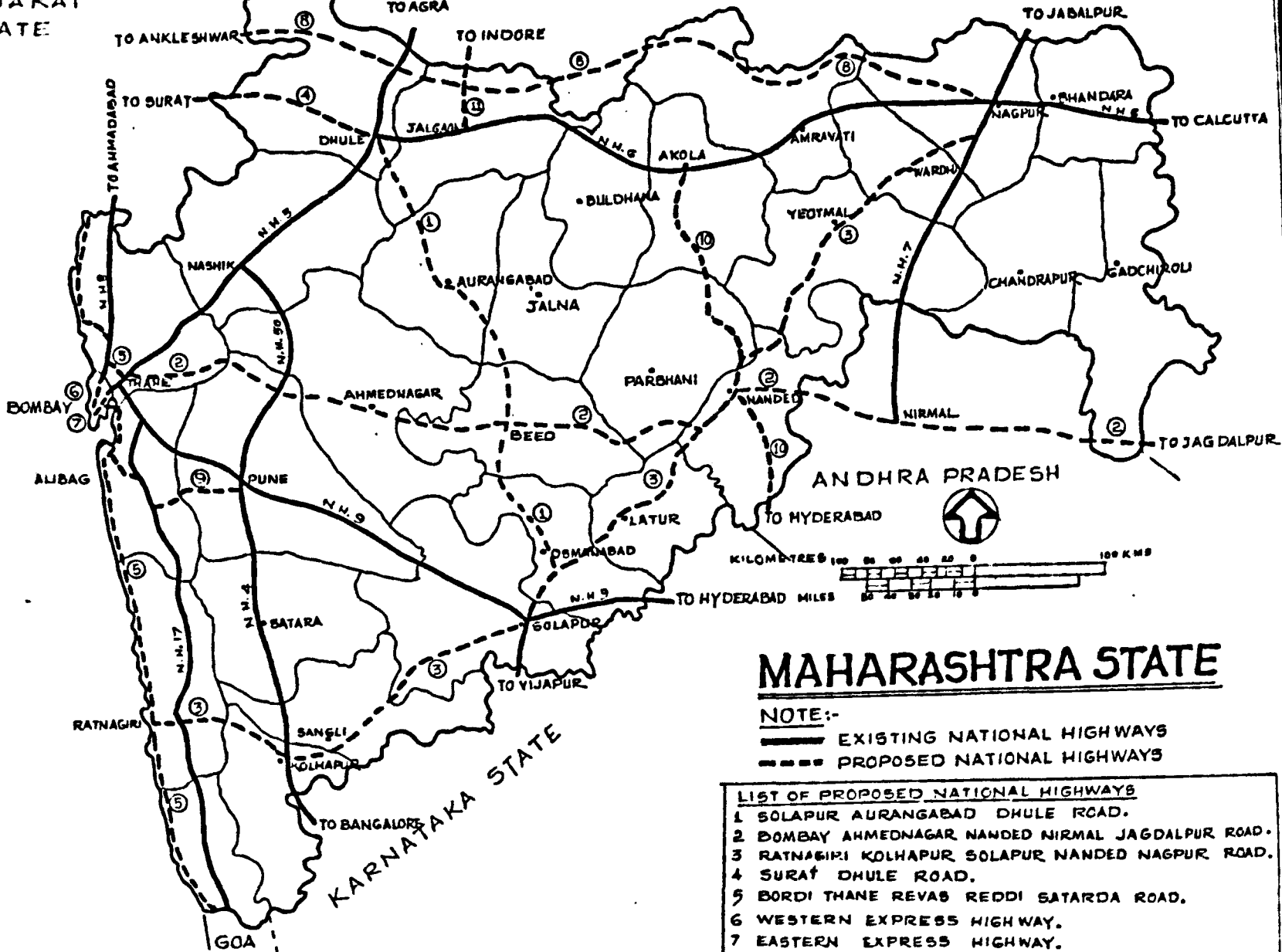
Cost of Backlog of Roads System

(Rs. Crore)

District	Other Roads System	Main Roads System Categories I to IX	Upgrading of State Highway No.2	Total for Main Roads System	Total Cols. (2)+(5)
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	10.02	10.43	20.45	20.45
3. Raigad	12.80	5.97	-	5.97	18.77
4. Ratnagiri	4.20	30.38	-	30.38	34.58
<u>KONKAN</u>	<u>17.00</u>	<u>46.37</u>	<u>10.43</u>	<u>56.80</u>	<u>73.80</u>
(excl. G.B.)					
5. Nashik	20.70	6.81	-	6.81	27.51
6. Dhule	-	9.00	-	9.00	9.00
7. Jalgaon	-	9.46	-	9.46	9.46
8. Ahmednagar	-	4.41	4.38	8.79	8.79
9. Pune	26.70	11.58	3.91	15.49	42.19
10. Satara	-	10.13	-	10.13	10.13
11. Sangli	-	3.04	-	3.04	3.04
12. Solapur	-	9.26	-	9.26	9.26
13. Kolhapur	-	5.86	-	5.86	5.86
<u>WESTERN MAHARASHTRA</u>	<u>47.40</u>	<u>69.55</u>	<u>8.29</u>	<u>77.84</u>	<u>125.24</u>
14. Aurangabad	-	18.17	-	18.17	18.17
15. Parbhani	45.90	17.09	2.26	19.35	65.25
16. Beed	-	2.61	9.20	11.81	11.81
17. Nanded	3.00	1.93	5.06	6.99	9.99
18. Osmanabad	-	4.60	-	4.60	4.60
<u>MARATHIWADA</u>	<u>48.90</u>	<u>44.40</u>	<u>16.52</u>	<u>60.92</u>	<u>109.82</u>
19. Buldhana	8.80	4.79	-	4.79	13.59
20. Akola	14.40	6.24	-	6.24	20.64
21. Amravati	19.00	12.92	-	12.92	31.92
22. Yavatmal	27.70	13.76	-	13.76	41.46
23. Wardha	7.70	8.89	-	8.89	16.59
24. Nagpur	34.30	4.31	-	4.31	38.61
25. Bhandara	-	2.22	-	2.22	2.22
26. Chandrapur	95.30	31.10	-	31.10	126.40
<u>VIDARBHA</u>	<u>207.20</u>	<u>84.23</u>	<u>-</u>	<u>84.23</u>	<u>291.43</u>
<u>MAHARASHTRA STATE</u>	<u>320.50</u>	<u>244.55</u>	<u>35.24</u>	<u>279.79</u>	<u>600.29</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	320.50	244.55	35.24	279.79	600.29

GUJARAT STATE

MADHYA PRADESH



MAHARASHTRA STATE

NOTE:-
 ——— EXISTING NATIONAL HIGHWAYS
 - - - - - PROPOSED NATIONAL HIGHWAYS

- LIST OF PROPOSED NATIONAL HIGHWAYS
- 1 SOLAPUR AURANGABAD DHULE ROAD.
 - 2 BOMBAY AHMEDNAGAR NANDED NIRMAL JAGDALPUR ROAD.
 - 3 RATNAGIRI KOLHAPUR SOLAPUR NANDED NAGPUR ROAD.
 - 4 SURAT DHULE ROAD.
 - 5 BORDI THANE REVAS REDDI SATARDA ROAD.
 - 6 WESTERN EXPRESS HIGHWAY.
 - 7 EASTERN EXPRESS HIGHWAY.
 - 8 ANKLESHWAR BURHANPUR NAGPUR ROAD.
 - 9 NHAVASHEVA POINAD KOLAD TAMHANIGHAT PUNE ROAD
 - 10 AKOLA NANDED HYDERABAD ROAD
 - 11 JALGAON INDORE ROAD.

SUBMITTED TO THE G.O.I. VIDE LETTER NO. PLN 1281/4891 D2Q, DATED 10th FEB 1981

System, we said that its function was to connect the district and taluka towns and, in doing so, we did not distinguish the National Highways, State Highways and Major District Roads. But among these the National Highways have a special role to perform, besides their function as part of the Main Roads System. It is to open and connect large regions of the State to its Metropolitan areas and to the adjoining States. In this matter, the Marathwada region is clearly at a disadvantage, more so because even the railway system does not provide direct access for this region to Bombay. (See the adjoining map). We understand that the State Government has been pressing on the Government of India that eleven additional roads in the State should be recognised as National Highways. Without prejudice to the other ten roads so proposed, we suggest that the State Government should attach highest priority in this matter to Road No.2 connecting Bombay, Thane, Ahmednagar, Beed, Nanded, Bhokar to State border and that, pending the recognition by the Government of India of this road as a National Highway, the State Government on its own should bring this State Highway to the standard of a National Highway. We suggest that this should form a part of the programme of removal of the backlog in the Main Roads System wherein categories I to VI and upgradation of this State Highway should receive a high priority. Details of cost of works needed to be done for the purpose in respective districts, are given in Table 6.7. It adds up to Rs.35.24 crore.

Aggregate Backlog:

6.17. Finally, in Table 6.8, we bring together the total cost of the three items of backlog namely, (a) Other Roads System, (b) Main Roads System and (c) Upgrading of State Highway No.2. It adds up to Rs.600.29 crore.

CHAPTER VII

IRRIGATION FROM SURFACE WATER RESOURCES

Surface Water Resources of Maharashtra:

7.1. The first assessment of the surface water resources of Maharashtra State and their utilisation was done by the Maharashtra State Irrigation Commission (1962). This is given in Table 7.1. It shows, for each basin/sub-basin, its culturable area (Col.2), 75 per cent dependable water resources (Col.3), utilisable water resources (Col.4), culturable command (Col.5), irrigable command (Col.6); in the last two columns are given irrigation area per MCft. and irrigable area expressed as per cent of total culturable area. These estimates are based on the Master Plans prepared by the Water Resources Investigation Circle until 1961.

7.2. The estimates have been revised and updated departmentally from time to time. Master Plans for Krishna and Godavari basins were approved by the Government in January 1971. Thereafter, Water Disputes Tribunal has given its Decision regarding Krishna basin in May 1976 and for Godavari basin in July 1980 modifying the water availability of Maharashtra. Consequent sub-basinwise revised Master Plans for Krishna and Godavari are presently under preparation. Master Plans for the Konkan rivers were prepared in March 1981. Master Plan for Maharashtra area of Tapi basin was prepared in January 1982. While approving the Ukai Project on Tapi river in Gujarat, the Government of India has reserved 262 TMC water for upstream use in Maharashtra and Madhya Pradesh. Maharashtra's share is to be decided after discussions with Madhya Pradesh. In Table 7.2, we give, on the basis of present assessment (1982), basinwise estimates of utilisable water resources and planned water use of major, medium and minor (State Sector) projects completed and under construction.

Ultimate Irrigation Potential:

7.3. The Maharashtra State Irrigation Commission (1962) had assessed the total irrigation potential of Maharashtra through surface water resources at 52.61 lakh hectares. A recent assessment (1979), made in connection with the appraisal of Maharashtra's irrigation projects by the World Bank, places the ultimate potential at 61.93 lakh hectares. This is tentative and subject to revision. For our purpose, its merit is that it is available broken up by districts. Hence, we shall give it for information. However, our assessment of the district backlog in irrigation does not depend upon any assessment of ultimate irrigation potential.

The River Basins:

7.4. Maharashtra State is divided into five river basins, namely, the Konkan rivers, Tapi, Narmada, Krishna, and Godavari. Among these, the Konkan rivers, and Tapi and Narmada are west

Table 7.1.

Irrigation Potential of River Basins in Maharashtra (1962)

Name of Basin	Culturable Area (Lakh Acres)	Water resources		Culturable Command (Lakh Acres)	Irrigable by water in(4) (Lakh Acres)	Irrigable per MC ft** (Acres)	Irrigable as per cent of Culturable
		75% depend-able (TMC*)	Of which utilisable (TMC*)				
1	2	3	4	5	6	7	8
Krishna (proper)	39.92	769.54	512.80	13.84	10.26	2.00	25.70
Bhima	97.39	309.40	308.42	26.07	18.62	6.03	19.12
Godavari (proper)	147.40	403.60	363.66	32.34	23.67	6.51	16.06
Wainganga (including Penganga & Wardha)	114.00	719.12	499.63	42.34	30.14	6.03	26.44
Tapi	82.83	228.86	206.07	16.35	12.93	6.27	15.61
West-flowing rivers in Konkan	43.13	1,500.00	N.A.	N.A.	N.A.	-	-
Total	524.67	3,930.52					

(Source: Appendix F. Table No.30. Report of Maharashtra State Irrigation Commission).

* TMC = Thousand Million Cubic Feet.

** MC ft = Million Cubic Feet.

Table 7.2.

Use of Maharashtra Water Resources (1982)

River Basin	Geographi- cal Area in Maharashtra (Sq.Km)	Permissible Utilisable Water (TMC)	WATER USE		Total
			Completed Schemes (TMC)	Schemes Under Construc- tion (TMC)	
1	2	3	4	5	6
1. West flowing rivers	30,394	696	32.974 (4.74)	88.872 (12.77)	121.846 (17.51)
2. Tapi	51,254	242*	58.342 (24.11)	64.341 (26.59)	122.683 (50.70)
3. Narmada	1,659	11	-	-	-
4. Krishna	70,114	594	239.741 (40.36)	283.960 (47.80)	523.701 (88.16)
5. Godavari	154,341	1,089	177.619 (16.31)	446.357 (40.99)	623.976 (57.30)
Total :		2,632	508.676 (19.33)	883.530 (33.57)	1,392.206 (52.90)

* Maharashtra's Master Plan for Tapi basin is for 242 TMC. Maharashtra's share out of 262 TMC will be decided after discussion with Madhya Pradesh.

- Notes:
- For west flowing rivers and Tapi basin, the projectwise water use is taken from Master Plans.
 - For Krishna Basin, the projectwise water use is taken from the water account prepared by Superintending Engineer, Irrigation Projects and Water Resources Investigation Circle, Pune.
 - For Godavari basin below Pochampad (Vidarbha area) projectwise water use is taken from Chief Engineer, Irrigation Department, Nagpur's Report (December 1979) and for Godavari basin above Pochampad, the projectwise water use is taken from the available record in Mantralaya, and the water account submitted by Chief Engineer (Nashik) and Chief Engineer (Aurangabad).
 - For minor irrigation schemes projectwise potential (Ha.) is available. Water use is taken as 2 hectares per MCft. for Konkan region and 5 hectares per MCft. for other regions.
 - The information is inclusive of use on Hydro Projects in Krishna basin and water supply projects for Bombay Area.
 - Figures in brackets are percentages in each case to utilisable water (Col.3).

flowing rivers; Krishna and Godavari are east flowing rivers. In the following are shown the districts or parts of districts (percentages indicated in brackets) lying within each basin:

<u>Basin</u>	<u>Districts</u>
Konkan Rivers	Thane, Raigad, Ratnagiri-Sindhudurg.
Tapi	Amravati (65.7%), Akola (64.7%), Buldhana (60.4%), Jalgaon, Dhule (88.5%), Nashik (52.8%), Aurangabad- Jalna (7.0%).
Narmada	Dhule (11.5%).
Krishna	Pune, Solapur, Satara, Sangli, Kolhapur, Ahmednagar (36.2%), Beed (14.2%), Osmanabad-Latur (31.8%).
Godavari	Nashik (47.8%), Ahmednagar (63.8%), Aurangabad-Jalna (93.0%), Beed (85.8%), Osmanabad-Latur (68.2%), Nanded, Parbhani, Buldhana (39.6%), Akola (35.3%), Amravati (34.3%), Yavatmal, Wardha, Nagpur, Bhandara, Chandrapur- Gadchiroli.

Irrigation Potential achieved by June 1960 and June 1982:

7.5. We shall begin by presenting data on irrigation potential created in different districts as on 30th June 1960 and, 22 years later, as on 30th June 1982. This covers the major, medium and State and Local Sector minor irrigation works including lift irrigation schemes. It does not take into account groundwater that is irrigation by dug wells and bore wells. The relevant data are given in Table 7.3.

7.6. The irrigation potential in the State in June 1960 amounted to 386,200 hectares. By June 1982, this increased to 2,157,390 hectares which is 5.6 times as much as in 1960. In order to compare the development of irrigation in different regions and districts, one should relate the irrigation potential to the net cropped area. For this purpose, we have used the net sown areas in 1960-61 and 1978-79 (latest available districtwise), respectively. The irrigation potential in the State in June 1960 amounted to a mere 2.16 per cent of the net sown area in 1960-61. In June 1982, it was 11.83 per cent of the net sown area in 1978-79. We may summarise the regional position as follows:

TABLE 7.3

Irrigation Potential Created, June 1960 and June 1982

District	Net Sown Area, 1960-61 (⁰ 000 hectares)	Irrigation Potential Created by June 1960 (⁰ 000 hectares)	Percentage of Col. (3) to Col.(2)	Net Sown Area 1978-79 (⁰ 000 hectares)	Irrigation Potential Created by June 1982	Percentage of Col. (6) to Col.(5)
1	2	3	4	5	6	7
1. Greater Bombay	8.70	-	-	6.60	-	-
2. Thane	290.20	-	-	265.10	10.19	3.84
3. Raigad	215.10	1.80	0.84	195.80	27.86	14.68
4. Ratnagiri	357.50	-	-	356.30	12.07	3.39
KONKAN						
<u>(excluding G.B)</u>	<u>862.80</u>	<u>1.80</u>	<u>0.21</u>	<u>817.20</u>	<u>50.12</u>	<u>6.13</u>
5. Nashik	906.50	35.10	3.88	889.60	125.26	14.08
6. Dhule	669.60	22.58	3.37	705.00	75.42	10.70
7. Jalgaon	805.90	14.41	1.79	810.50	115.47	14.25
8. Ahmednagar	1,258.60	59.63	4.74	1,214.90	214.49	17.65
9. Pune	985.20	70.07	7.11	1,001.00	148.63	14.85
10. Satara	680.30	25.55	3.75	585.90	103.83	17.72
11. Sangli	641.90	5.32	0.83	616.10	83.33	13.53
12. Solapur	1,206.00	66.13	5.48	1,137.40	174.04	15.30
13. Kolhapur	413.00	10.15	2.46	423.70	70.78	16.71
WESTERN MAHARASHTRA	6,109.90	309.00	5.06	7,384.10	1,111.25	15.05
14. Aurangabad	1,254.10	1.05	0.08	1,214.00	121.57	10.01
15. Parbhani	913.30	-	-	1,007.30	143.86	14.28
16. Beed	748.80	7.03	0.94	809.50	78.09	9.65
17. Nanded	691.00	-	-	727.90	91.07	12.51
18. Osmanabad	1,037.30	3.56	0.34	1,115.00	72.56	6.51
MARATHWADA	4,644.50	11.64	0.25	4,873.70	507.15	10.41
19. Buldhana	680.30	-	-	681.90	37.13	5.45
20. Akola	763.90	-	-	820.70	48.83	5.95
21. Amravati	682.90	0.60	0.09	722.90	18.85	2.61
22. Yavatmal	736.00	0.32	0.04	854.60	43.70	5.11
23. Wardha	407.40	-	-	442.00	28.85	6.53
24. Nagpur	530.60	6.47	1.22	565.50	79.23	14.01
25. Bhandara	381.30	37.21	9.76	388.30	146.03	37.61
26. Chandrapur	612.60	19.16	3.13	690.80	86.25	12.49
VIDARBHA	4,795.00	73.76	1.33	5,166.70	488.87	9.46
MAHARASHTRA STATE	17,878.30	386.20	2.16	18,248.30	2,157.39	11.82
MAHARASHTRA STATE (excluding G.B)	17,869.60	386.20	2.16	18,241.70	2,157.39	11.83

<u>Region</u>	<u>Irrigation Potential as percentage of</u>		
	<u>June 1960</u>	<u>June 1982</u>	<u>Increase 1960-82</u> <u>Percentage points</u>
Konkan	0.21	6.13	5.92
Western Maharashtra	5.06	15.05	9.99
Marathwada	0.25	10.41	10.16
Vidarbha	1.33	9.46	8.13
Maharashtra	2.16	11.83	9.67

Thus, the irrigation potential in June 1960 was very small and was very unevenly distributed between the regions. At the top was Western Maharashtra (5.06), followed by Vidarbha (1.33). At the bottom were Marathwada (0.25) and Konkan (0.21). But, between 1960 and 1982, the irrigation percentage in the State has increased from 2.16 to 11.83, which is 5.48 times and the increase is much more evenly distributed between the regions except Konkan. For instance, the increase in irrigation potential, in terms of percentage points, was nearly equal in Western Maharashtra (9.99) and Marathwada (10.16). The increase was somewhat smaller in Vidarbha (8.13) and really small in Konkan (5.92). But the increase was quite uneven as between the districts. In Konkan, the development of irrigation has taken place only in Raigad. In Vidarbha, it is largely in Bhandara, Chandrapur and Nagpur. In Marathwada, it is again largely in Parbhani and Nanded. In Western Maharashtra, it is spread more widely: in Nashik, Jalgaon and Ahmednagar in the North and in Satara, Sangli and Kolhapur in the South. Three districts are left far behind; they are Thane and Ratnagiri in Konkan and Amravati in Vidarbha.

Position as on 30th June 1982:

7.7. We may now examine the position as on 30th June 1982 in greater detail. We might assess the district backlog in irrigation on the basis of the irrigation potential as a percentage of the net sown area in each district. But this would not be quite appropriate because irrigation potential, as a measure of irrigation development, is not entirely satisfactory. Irrigation potential is defined as the gross area that can be irrigated, in a year (1st July to 30th June), from a project, on its full development, on the basis of the projected cropping pattern and assumed water allowance for each crop. The gross irrigated area is the aggregate of the areas irrigated in different cropping seasons, the areas under two seasonal and perennial crops counted only once. Because water requirements of different crops are different, irrigation potential in terms of a certain irrigable area is not a homogeneous quantity. Irrigation potential is normally distinguished into several categories of irrigation, namely, kharif, rabi, hot-weather, two-seasonal (i.e. kharif + rabi) and perennial. For instance, the irrigation potential created by major, medium, and State sector minor projects by June 1982 is broken up as under. (We do not have the relevant information for local sector minor irrigation projects,

whose irrigation potential in June 1982 was 2,17,770 hectares out of a total potential of 2,157,390 hectares).

Seasonwise Irrigation Potential of Major, Medium and State sector
Minor Projects in June 1982

<u>Season</u>	<u>Potential</u> <u>'000 hectares</u>	<u>Percent</u> <u>to total</u>
Kharif	701.13	36.15
Rabi	790.47	40.75
Hot-weather	70.44	3.63
Two seasonal	228.84	11.80
Perennial	148.74	7.67
<u>TOTAL</u>	<u>1,939.62</u>	<u>100.00</u>

Thus, 36.15 per cent of the irrigation potential is for kharif crops; 40.75 per cent for rabi crops; 3.63 per cent for hot-weather crops; 11.80 per cent for two-seasonals; and 7.67 per cent for perennials. This distribution is not the same in all districts. In Table 7.4, we give the percentage distribution of irrigation potential in each district divided into the several categories.

7.8. It will be noticed that the proportion of kharif potential is very high in Chandrapur (85.56), Bhandara (82.41), and Nagpur (59.27). On the other hand, it is only 11.92 per cent in Thane, 4.01 per cent in Kolhapur, and nil in Ratnagiri. In all other districts, it is mostly between 20 and 40 per cent. While kharif potential in Chandrapur and Bhandara is very high, the rabi potential in these districts is very low, 10.45 and 11.30 per cent respectively. In other districts it varies between 30 and 60 per cent except in Ratnagiri where it is very high (90.0). Proportion of hot-weather potential is generally small and less than 3 per cent. But in some districts it is very high. They are : Raigad (33.15), Thane (16.69), Solapur (19.13), and Satara (10.58). The proportion of two seasonal potential is generally high in Marathwada, and Vidarbha except Chandrapur, Bhandara and Nagpur. It is also high in Jalgaon. Finally, the proportion of perennial potential is very high in Kolhapur (58.21). It is also relatively high in Sangli (17.07), Satara (13.93) and Parbhani (10.10).

Standard Rabi Equivalent:

7.9. Thus the seasonal distribution of irrigation potential in different districts is quite different. This is relevant because the water requirements of crops grown in different seasons are different. Hence, to compare the development of irrigation in different districts and to assess the backlog of the districts lagging behind, it is necessary to convert the irrigation potential in different seasons to some "standard crop areas". The Maharashtra State Irrigation Commission (1962) had mentioned this in the context of non-utilisation of irrigation potential.

TABLE 7.4

Percentage Distribution : Seasonwise Irrigation
Potential Created State Sector Irrigation Projects as on June 30, 1982

District	Kharif	Rabi	Hot Weather	Two Seasonals	Perennial	Total '000 hectares (= 100)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	11.92	59.36	16.69	6.67	5.36	8.39
3. Raigad	27.32	25.64	33.15	6.82	7.07	23.32
4. Ratnagiri	-	90.00	-	10.00	-	4.70
<u>KONKAN</u> <u>(excluding G.B)</u>	<u>20.24</u>	<u>41.72</u>	<u>25.07</u>	<u>7.20</u>	<u>5.77</u>	<u>36.41</u>
5. Nashik	42.39	48.39	0.79	4.58	3.85	113.36
6. Dhule	46.37	38.78	0.57	8.63	5.65	64.55
7. Jalgaon	38.43	34.10	1.63	20.05	5.79	106.31
8. Ahmednagar	32.68	46.21	2.03	12.71	6.37	206.56
9. Pune	22.37	56.50	2.12	11.65	7.36	133.86
10. Satara	34.79	36.86	10.58	3.84	13.93	97.63
11. Sangli	38.47	43.92	-	0.54	17.07	75.41
12. Solapur	18.53	53.29	19.13	2.60	6.45	142.61
13. Kolhapur	4.01	35.08	2.30	0.40	58.21	59.53
<u>WESTERN MAHARASHTRA</u>	<u>30.82</u>	<u>45.33</u>	<u>4.90</u>	<u>8.20</u>	<u>10.75</u>	<u>999.82</u>
14. Aurangabad	24.80	49.24	1.03	22.67	2.26	101.69
15. Parbhani	18.64	43.12	2.96	25.18	10.10	135.01
16. Beed	24.65	54.34	0.61	18.52	1.88	73.23
17. Nanded	37.38	39.84	2.68	11.99	8.11	87.56
18. Osmanabad	33.03	48.07	0.90	16.19	1.81	66.96
<u>MARATHWADA</u>	<u>26.55</u>	<u>46.32</u>	<u>1.82</u>	<u>19.80</u>	<u>5.51</u>	<u>464.45</u>
19. Buldhana	28.96	37.96	1.04	30.03	2.01	32.77
20. Akola	27.85	37.73	2.46	29.72	2.24	43.41
21. Amravati	30.03	48.42	1.68	19.66	0.21	14.25
22. Yavatmal	29.57	40.51	1.17	24.32	4.43	40.88
23. Wardha	25.16	44.79	1.27	26.28	2.50	27.62
24. Nagpur	59.27	27.93	1.97	6.09	4.74	68.11
25. Bhandara	82.41	11.30	-	2.71	3.58	132.56
26. Chandrapur	85.56	10.45	0.04	2.21	1.74	79.34
<u>VIDARBHA</u>	<u>59.78</u>	<u>24.36</u>	<u>0.88</u>	<u>11.90</u>	<u>3.08</u>	<u>438.94</u>
<u>MAHARASHTRA STATE</u>	<u>36.15</u>	<u>40.75</u>	<u>3.63</u>	<u>11.80</u>	<u>7.67</u>	<u>1,939.62</u>
<u>MAHARASHTRA STATE</u> <u>(excluding G.B)</u>	<u>36.15</u>	<u>40.75</u>	<u>3.63</u>	<u>11.80</u>	<u>7.67</u>	<u>1,939.62</u>

We quote: "Non-utilisation of the irrigation potential is often assessed by merely comparing the area actually irrigated in a given year with that put down in the project. Such a comparison is not valid unless both the figures of acreages are converted to "standard crop acres" (para 6.2.1, p.152). The Government of Maharashtra had recognised the need for such conversion in another context. By a Circular Memorandum (No. CME 9065/96304/St. Br.) dated March 28, 1967, the Government had directed that (a) the equivalent area (in terms of rabi-bhusar, such as traditional rabi jowar requiring three waterings) should be derived by multiplying the areas under various crops by the factors as given in the following: Heavy Perennial crops (9), Light Perennials (6), Two seasonals, like Chilly, Turmeric, etc. (3), Paddy (3), E.L.S. Cotton (3), Vegetables, Onions (2), Seasonals (1), Hybrid maize, Bajra and Jowar - seed or commercial (3); and that (b) project reports in future should indicate also the cost per acre of equivalent standard area. We understand that this was not followed up and that, therefore, irrigation potential of each project is not available expressed in terms of equivalent rabi-bhusar area.

7.10. The estimates of irrigation potential available to us are in terms of seasons such as kharif, rabi, hot-weather, two seasonals, and perennials and not in terms of the crops mentioned in the above mentioned Circular Memorandum. We could not, therefore, convert the irrigation potential to standard rabi bhusar area by making use of the conversion factors given in the Circular Memorandum. Hence, we consulted the Irrigation Department how we might convert the irrigation potential given in terms of kharif, rabi, hot weather, two seasonals, and perennials into standard rabi area. Recognising that the conversion factors would be somewhat different in different regions, the Department has advised us to use the following factors for converting the irrigation potential in different seasons into "Standard Rabi Area", which is understood to mean a rabi crop requiring three waterings:

<u>Region</u>	<u>Kharif</u>	<u>Rabi</u>	<u>Two- Seasonal</u>	<u>Perennial</u>	<u>Hot- Weather</u>
Konkan	0	1.67	3	6	3
Western Maharashtra	1	1.5	3	9 (except Kolhapur & Satara, where it is 6)	3
Marathwada	1	1.3	3	9	3
Vidarbha-I (Nagpur, Bhandara, Chandrapur)	1	1.5	3	6	3
Vidarbha-II (Rest of Vidarbha)	1	1.5	3	9	3

While suggesting these conversion factors, the Irrigation Department has cautioned us that these are "in the nature of broad indicative multipliers with some element of inexactitude, and they do not therefore represent the final considered views of the Department in this regard". In the circumstance, while we shall use the above factors for converting the irrigation potential in different seasons into "Standard Rabi Area", we wish to emphasise the need to review these conversion factors or otherwise suggest methods, so that a comparison of irrigation development in different districts or regions, as also a discussion of under-utilisation of irrigation potential, is placed on a firmer footing. We should also mention that though the above conversion factors are admittedly tentative and provisional, we prefer to use them because a comparison of irrigation development in different districts based on irrigation potential so converted to standard rabi area will be more appropriate and closer to reality than one based on non-standardised irrigation potential.

Backlog in Irrigation:

7.11. In Col.2 of Table 7.5, we give the Standard Rabi Equivalent of the irrigation potential of the State sector irrigation projects as on 30th June 1982. It will be noticed that the 1,939.62 lakh hectares of gross irrigation potential when converted to Standard Rabi Equivalent amounts to 3,896.51 lakh hectares, the ratio between the two being 2.01; that is to say, the Standard Rabi Equivalent of the irrigation potential is 2.01 times the gross or unstandardised irrigation potential. This ratio is different in different districts. It is the highest in Kolhapur being 4.14; this is because, 58.21 per cent of the irrigation potential in Kolhapur district (compared to 7.67 per cent in the State) is under perennial crops. If we leave aside this rather exceptional case, the ratio between the Standard Rabi Equivalent of irrigation potential and the gross unstandardised irrigation potential varies from 2.60 in Sangli and 2.50 in Parbhani to 1.29 in Bhandara and 1.18 in Chandrapur. The very low ratios in Bhandara and Chandrapur are because 82.41 per cent of the irrigation potential in Bhandara and 85.56 per cent in Chandrapur is under kharif paddy.

7.12. It will be noted that the Standard Rabi Equivalent shown in Col.2 of Table 7.5 relates to only the irrigation potential of the State Sector irrigation projects. It does not include the irrigation potential of the Local Sector projects; as already mentioned, we could not get its categorywise break-up. We understand that the Local Sector irrigation projects provide mostly seasonal irrigation and we have been advised for that reason to take the conversion factor for this potential to be One. In Col.3 of the Table, we show the irrigation potential of the Local Sector projects and because its conversion factor is one, it also is its own Standard Rabi Equivalent. Hence, the total of Cols.2 and 3, shown in Col.4, gives the total irrigation potential expressed in Standard Rabi Equivalent. In Col.5, we

TABLE 7.5

Backlog at District Level in Standard Rabi Equivalent Hectares
as on June 30, 1982

(Area : in thousand hectares)

District	Standard Rabi Equivalent of Potential of State Sector Irrigation Projects	Local Sector Irrigation Potential	Col. (2) + Col. (3)	Net Sown Area 1978-79	Col.(4) as percentage of Col. (5)	Backlog In Std. Rabi Equivalent
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	6.60	-	-
2. Thane	16.90	1.80	18.70	265.10	7.05	41.08
3. Raigad	47.85	4.54	52.39	195.80	26.76	-
4. Ratnagiri	8.47	7.37	15.84	356.30	4.45	64.50
KONKAN						
<u>(excluding G.B)</u>	<u>73.22</u>	<u>13.71</u>	<u>86.93</u>	<u>817.20</u>	<u>10.64</u>	<u>105.58</u>
5. Nashik	187.93	11.90	199.83	889.60	22.46	0.77
6. Dhule	118.15	10.87	129.02	705.00	18.30	29.96
7. Jalgaon	219.74	9.16	228.90	810.50	28.24	-
8. Ahmednagar	420.48	7.93	428.41	1,214.90	35.26	-
9. Pune	287.34	14.77	302.11	1,001.00	30.18	-
10. Satara	211.74	6.20	217.94	585.90	37.20	-
11. Sangli	195.75	7.92	203.67	616.10	33.06	-
12. Solapur	316.17	31.43	347.60	1,137.40	30.56	-
13. Kolhapur	246.44	11.25	257.69	423.70	60.82	-
WESTERN MAHARASHTRA	<u>2,203.74</u>	<u>111.43</u>	<u>2,315.17</u>	<u>7,384.10</u>	<u>31.35</u>	<u>30.73</u>
14. Aurangabad	183.81	19.88	203.19	1,214.00	16.74	70.57
15. Parbhani	337.57	8.85	346.42	1,007.30	34.39	-
16. Beed	124.23	4.86	129.09	809.50	15.95	53.45
17. Nanded	180.52	3.51	184.03	727.90	25.28	-
18. Osmanabad	109.18	5.60	114.78	1,115.00	10.29	136.65
MARATHWADA	<u>934.81</u>	<u>42.70</u>	<u>977.51</u>	<u>4,873.70</u>	<u>20.06</u>	<u>260.67</u>
19. Buldhana	64.93	4.36	68.99	681.90	10.12	84.78
20. Akola	87.30	5.42	92.72	820.70	11.30	92.35
21. Amravati	24.08	4.60	28.68	722.90	3.97	134.33
22. Yavatmal	84.48	2.82	87.30	854.60	10.22	105.41
23. Wardha	54.55	1.23	55.78	442.00	12.62	43.89
24. Nagpur	104.75	11.12	115.87	565.50	20.49	11.65
25. Bhandara	170.98	13.47	184.45	388.30	47.50	-
26. Chandrapur	93.97	6.91	100.88	690.80	14.60	54.90
VINDARBHA	<u>684.74</u>	<u>49.93</u>	<u>734.67</u>	<u>5,166.70</u>	<u>14.22</u>	<u>527.31</u>
MAHARASHTRA STATE						
<u>(excluding G.B)</u>	<u>3,896.51</u>	<u>217.77</u>	<u>4,114.28</u>	<u>18,241.70</u>	<u>22.55</u>	<u>924.29</u>

show the Net Sown Area in 1978-79. In Col.6 is shown the irrigation potential in Standard Rabi Equivalent as a percentage of the net sown area. It will be seen that in the State as a whole the percentage is 22.75, and that it varies from a high of 60.82 per cent in Kolhapur and 47.50 per cent in Bhandara to a low of 7.05 per cent in Thane and 3.97 per cent in Amravati. We suggest that we should use this percentage as an indicator of the irrigation development in different districts and assess the backlog in the lagging districts on that basis. This is shown in Col.7 of the Table. The backlog is shown in terms of irrigation potential expressed in Standard Rabi Equivalent. For the State as a whole the backlog amounts to 924,290 hectares of which 527,310 hectares are in Vidarbha, 260,670 hectares in Marathwada, 105,580 hectares in Konkan and only 30,730 hectares are in Western Maharashtra (mainly in Dhule district).

7.13. This is the backlog in irrigation as on 30th June 1982 as it emerges if we examine the position districtwise. As we have mentioned, we have examined the position districtwise because we have been asked to do so and also because readily available data would not permit us to go below the district level and examine the disparities at the taluka level. At the same time, we have emphasised that, for many purposes, it will be necessary to carry our analysis further down to the taluka level. Irrigation development is one such subject where the analysis will have to be carried to the taluka level. This is because irrigation in Maharashtra, particularly in districts where it is relatively developed, has remained highly concentrated in local pockets. This has created intra-district disparities as large as those between districts or between regions. Moreover, many of the areas which are lagging behind in irrigation are also among the drought-prone areas in the State. It is imperative that we take into account at least these areas while assessing the backlog in irrigation development in the State.

Drought-Prone Areas:

7.14. Fortunately, relevant data are available taluka-wise for the drought-prone area in the State. This was compiled in September-October 1981 as directed by Irrigation Department's Circular Memorandum No.D.P.A. 1081/(229) K.G. dated 22-9-1981. The data as then compiled gave the taluka-wise position as on 30-6-1980. However, because the districtwise data presented so far gave the districtwise position as on 30-6-1982, we got the taluka-wise data of the drought-prone talukas updated to give the position as on 30-6-1982. We propose to make use of this data.

7.15. We should note that the irrigation potential in the districts as we have estimated earlier and the irrigation potential in the drought-prone talukas given in the above-mentioned data are not quite comparable. It will be remembered that we got the districtwise irrigation potential broken up into kharif, rabi, hot weather, two-seasonal, and perennial which we converted into Standard Rabi Equivalent by making use of certain conversion factors. On the other hand, the irrigation potential

in the drought-prone talukas is estimated in the following manner: First, the utilisable water from each project is assigned to different talukas under its command in proportion to the Irrigation Command Area of the project falling in different talukas. Second, the quantum of water from all projects so assigned to a taluka is converted to irrigation potential at the rate of 10 acres per MCft. Ten acres per MCft. gives approximately 27.5 inches of utilisable water from the storage which, taking the efficiency of water use at about 40 per cent, leaves about 11 inches of water at the field level. This is the requirement, possibly with some excess, of three waterings in rabi which is also the basis of Standard Rabi area to which we converted the irrigation potential by making use of certain conversion factors. Hence, the estimates of irrigation potential derived on the basis of 10 acres per MCft. of water would be approximately comparable with the estimates of irrigation potential in terms of Standard Rabi Equivalent. Nevertheless, to keep the two distinct, we shall refer to them as the Standard Rabi Equivalent and, the Converted Irrigation Potential respectively.

7.16. Fortunately, it is possible for us to see how close is the correspondence between the two. As it happens all the talukas of Ahmednagar and Solapur districts are drought-prone. We have therefore two estimates of irrigation potential of the State Sector projects in these districts: One in terms of the Standard Rabi Equivalent and the other in terms of the Converted Irrigation Potential. The two estimates are as under:

Irrigation Potential of State Sector Projects

<u>District</u>	<u>Standard Rabi Equivalent (Hectares)</u>	<u>Converted Irrigation Potential (Hectares)</u>
Ahmednagar	420,480	323,211
Solapur	316,170	246,352

It will be noticed that in both cases the Standard Rabi Equivalent is higher than the Converted Irrigation Potential; in Ahmednagar by 30.1 per cent, and in Solapur by 28.3 per cent.

7.17. In other districts, all talukas are not drought-prone. Hence, a similar check is not possible. But, in Nashik district, the difference between the two is evidently not as large as in Ahmednagar and Solapur. Out of 13 talukas in the Nashik district, all except two, Surgana and Peint, are drought-prone. In the following are the details of the irrigation potential in the drought-prone talukas (in terms of Converted Irrigation Potential) and the whole district (in terms of Standard Rabi Equivalent).

Irrigation Potential of State Sector Projects
in Nashik District (Hectares)

	<u>Net Sown Area</u>	<u>Irrigation Potential</u>
Drought-Prone Talukas	821,800	155,653
Whole District	889,600	187,930

Thus, even if we neglect the irrigation potential in the non-drought prone talukas of the district, the irrigation potential in terms of Standard Rabi Equivalent is only 20.7 per cent higher than the same in terms of Converted Irrigation Potential.

7.18. Nevertheless, it seems that the estimates of irrigation potential of the drought-prone talukas in terms of Converted Irrigation Potential (10 acres per MCft. of water) are somewhat underestimates compared to the estimates in terms of the Standard Rabi Equivalent. This may overestimate the irrigation backlog of the drought-prone talukas. We shall correct this in the following manner: We shall first take the estimates of converted irrigation potential in the drought-prone talukas as they are given. These relate to only the State Sector projects. Hence, we shall add an estimated irrigation potential of the Local sector projects. We shall then relate this total potential to the net sown area of the taluka and determine the talukas which prima facie have an irrigation backlog; that is to say, the talukas in which the irrigation potential as percentage of the net sown area is lower than the State average (22.55). Then, to allow for the possibility that the Converted Irrigation Potential may be an underestimate of the irrigation potential of the State sector projects in these talukas, we shall raise it by 30 per cent and add to it the estimated potential of the Local Sector projects. The estimate of irrigation potential so corrected will be the basis of our estimates of backlog in these talukas. The relevant details are shown in Table 7.6.

7.19. Table 7.6 covers only the drought-prone talukas. They are in 12 districts. All data are given talukawise. In Col.2 is given the net sown area. In Col.3 is given the Irrigation Potential of the State Sector projects, as on June 1982, estimated in terms of the Converted Irrigation Potential (10 acres per MCft.). In Col.4 is shown the irrigation potential of the Local Sector projects. This information was not readily available talukawise. Hence, we have allocated the Local Sector irrigation potential in the district (Col.3 of Table 7.5) to different drought-prone talukas on the basis of its ratio to the State Sector potential in the district (Col.2 of Table 7.5). In Col.5, the total irrigation potential being the total of Cols.3 and 4, is shown as percentage of the net sown area. Prima facie, the talukas where this percentage is below the State average (22.55) have backlog in irrigation. But then we correct the estimated irrigation potential in these talukas. We increase by 30 per cent the converted irrigation potential of the State Sector projects as shown in Col.3 and then add to it the estimated potential of the Local Sector shown in Col.4. The

Table 7.6

Irrigation Backlog in Drought-Prone Talukas

(Area : in hectares)

District	Net Sown Area, 1978-79	Irrigation Potential as in June 1982	Local Sector Irrigation Potential by June 1982	Col.(3)+ (4) as Percentage of Col.(2)	Corrected Irrigation Potential	Col.(6) as percentage of Col. (2)	Backlog	
Taluka	1	2	3	4	5	6	7	8
NASHIK								
Malegaon	102,000	24,080	1,525	25.10	-	-	-	
Baglan	87,200	16,707	1,058	20.37	22,777	26.12	-	
Kalwan	62,200	7,866	498	13.45	10,724	17.24	3,302	
Nandgaon	63,300	4,178	265	7.02	5,696	9.00	8,578	
Nashik	64,900	19,506	1,235	31.96	-	-	-	
Dindori	81,600	10,898	690	14.20	14,857	18.21	3,544	
Igatpuri	55,100	219	14	0.42	299	0.54	12,126	
Niphad	83,300	44,113	2,793	56.31	-	-	-	
Sinnar	80,800	5,994	380	7.89	8,172	10.11	10,048	
Yeola	75,200	18,881	1,196	26.70	-	-	-	
Chandor	66,200	3,211	203	5.16	4,377	6.61	10,551	
Backlog Talukas	409,200	32,366	2,050	8.41	44,125	10.78	48,149	
Rest of District	480,400	155,564	9,850	34.43	155,705	32.41	-	
DHULE								
Dhule	123,300	12,792	1,177	11.33	17,807	14.44	9,997	
Sakri	129,700	9,121	839	7.68	12,696	9.79	16,551	
Sindkheda	100,100	7,761	714	8.47	10,803	10.79	11,770	
Nandurbar	82,200	10,506	967	13.96	14,624	17.79	3,912	
Backlog Talukas	435,300	40,180	3,697	10.08	55,930	12.85	42,230	
Rest of District	269,700	77,970	7,173	31.57	73,090	27.10	-	
JALGAON								
Edlabad	37,500	3,646	152	10.13	4,892	13.04	3,564	
Amalner	77,200	7,159	298	9.66	9,605	12.44	7,804	
Erandol	76,100	9,359	390	12.81	12,557	16.50	4,604	
Parola	55,000	4,639	193	8.79	6,224	11.32	6,179	
Chalisgaon	86,000	12,122	505	14.68	16,264	18.91	3,129	
Pachora	63,000	7,106	296	11.74	9,534	15.13	6,525	
Bhadgaon	33,600	5,727	239	17.75	7,681	22.86	-	
Backlog Talukas	394,800	44,031	1,834	11.62	59,076	14.96	31,805	
Rest of District	415,700	175,709	7,326	44.03	169,824	40.85	-	

(Cont'd.)

Table 7.6

Irrigation Backlog in Drought-Prone Talukas

(Area : in hectares)

District	Net Sown Area, 1978-79	Irrigation Potential as in June 1982	Local Sector Irrigation Potential by June 1982	Col.(3)+ (4) as Percentage of Col.(2)	Corrected Irrigation Potential	Col.(6) as percentage of Col. (2)	Backlog
1	2	3	4	5	6	7	8
AHMEDNAGAR							
Ahmednagar	104,000	3,546	67	3.47	4,677	4.50	18,775
Parner	129,600	22,701	428	17.85	29,939	23.10	-
Shrigonda	117,100	25,136	474	21.87	33,151	28.31	-
Karjat	102,600	15,995	302	15.88	21,096	20.56	2,040
Jamkhed	73,000	3,660	69	5.11	4,827	6.61	11,635
Shevgaon	80,000	29,641	559	37.75	-	-	-
Pathardi	92,800	2,038	38	2.24	2,687	2.90	18,239
Nevasa	107,800	64,087	1,209	60.57	-	-	-
Rahuri	66,000	35,345	667	54.56	-	-	-
Sangamner	100,800	9,982	188	10.09	13,165	13.06	9,565
Akola	93,800	4,488	85	4.88	5,919	6.31	15,233
Kopergaon	75,700	56,159	1,059	75.59	-	-	-
Shrirampur	71,700	50,433	951	71.67	-	-	-
Backlog Talukas	567,000	39,709	749	7.14	52,371	9.24	75,487
Rest of District	647,900	380,771	7,181	59.88	376,039	58.04	-
PUNE							
Haveli	78,800	10,068	518	13.43	13,606	17.27	4,163
Junnar	97,900	10,483	539	11.26	14,167	14.47	7,909
Khed	64,700	1,124	58	1.83	1,519	2.35	13,071
Ambegaon	61,600	273	14	0.47	369	0.60	13,522
Sirur	128,200	16,102	828	13.21	21,761	16.97	7,148
Baramati	93,900	53,337	2,742	59.72	-	-	-
Indapur	115,300	26,771	1,376	24.41	-	-	-
Dhond	86,800	32,838	1,688	39.78	-	-	-
Purandhar	66,600	3,286	169	5.19	4,441	6.67	10,578
Backlog Talukas	497,800	41,336	2,216	8.73	55,863	11.22	56,391
Rest of District	503,200	246,004	12,644	51.40	246,247	48.94	-

(Cont'd.)

Table 7.6

Irrigation Backlog in Drought-Prone Talukas

(Area : in hectares)

District	Net Sown Area, 1978-79	Irrigation Potential as in June 1982	Local Sector Irrigation Potential by June 1982	Col.(3)+ (4) as Percentage of Col.(2)	Corrected Irrigation Potential	Col.(6) as percentage of Col. (2)	Backlog
Taluka	1	2	3	4	5	6	8
SATARA							
Koregaon	56,500	36,584	1,071	66.65	-	-	-
Khatav	91,300	10,174	298	11.47	13,524	14.81	7,064
Man	80,800	3,572	105	4.55	4,749	5.88	13,471
Phaltan	79,800	50,288	1,472	64.86	-	-	-
Khandala	31,000	3,717	109	12.34	4,941	15.94	2,050
Backlog Talukas	203,100	17,463	512	8.85	23,214	11.43	22,585
Rest of District	382,800	194,277	5,688	52.24	194,726	50.87	
SANGLI							
Miraj	74,900	16,578	671	23.03	-	-	-
Jath	134,900	4,682	189	3.61	6,276	4.65	24,144
Khanapur	106,900	5,439	220	5.29	7,291	6.82	16,815
Tasgaon	84,800	9,228	373	11.32	12,369	14.59	6,753
Atpadi	65,200	5,877	238	9.38	7,879	12.08	6,824
Kawathe							
Mahankal	43,600	3,327	135	7.94	4,460	10.23	5,372
Backlog Talukas	435,400	28,553	1,155	6.82	38,275	8.79	59,908
Rest of District	180,700	167,197	6,765	96.27	165,395	91.53	

(Cont'd.)

Table 7.6

Irrigation Backlog in Drought-Prone Talukas

(Area : in hectares)

District	Net Sown Area, 1978-79	Irrigation Potential as in June 1982	Local Sector Irrigation Potential by June 1982	Col.(3)+ (4) as Percentage of Col.(2)	Corrected Irrigation Potential	Col.(6) as percentage of Col.(2)	Backlog
1	2	3	4	5	6	7	8
SOLAPUR							
North							
Solapur	55,800	3,100	308	6.11	4,338	7.77	8,245
South							
Solapur	96,700	3,182	316	3.62	4,453	4.60	17,352
Barsi	143,100	10,005	995	7.69	14,001	9.78	18,268
Akkalkot	115,900	6,681	664	6.34	9,349	8.07	16,786
Mohol	110,100	10,667	1,060	10.65	14,927	13.56	9,901
Madha	125,300	9,982	992	8.76	13,968	11.15	14,287
Karmala	114,600	26,284	2,613	25.22	-	-	-
Pandharpur	95,000	80,785	8,031	93.49	-	-	-
Sangola	106,700	19,436	1,534	19.65	26,801	25.12	-
Malsiras	91,700	73,589	7,315	88.23	-	-	-
Mangal							
Wedha	82,500	2,641	263	3.52	3,696	4.48	14,908
Backlog Talukas	729,400	46,258	6,132	7.18	91,533	12.55	99,747
Rest of District	408,000	269,912	25,298	72.35	249,935	61.25	
AURANGABAD							
Aurangabad	103,700	7,152	776	7.65	10,074	9.71	13,310
Paithan	102,900	12,240	1,327	13.18	17,239	16.75	5,965
Gangapur	111,500	4,715	511	4.69	6,641	5.95	18,502
Vaijapur	126,000	6,777	735	5.96	9,545	7.58	18,868
Kannad	97,600	6,693	726	7.60	9,427	9.66	12,582
Khuldabad	34,400	916	99	2.95	1,290	3.75	6,467
Ambad	188,500	46,790	5,074	27.51	-	-	-
Backlog Talukas	576,100	38,493	4,174	7.41	54,216	9.41	75,694
Rest of District	637,900	144,817	15,706	25.16	148,974	23.35	

(Cont'd.)

Table 7.6(Concl'd)

Irrigation Backlog in Drought-Prone Talukas

(Area : in hectares)

District	Net Sown Area, 1978-79	Irrigation Potential as in June 1982	Local Sector Irrigation Potential by June 1982	Col.(3)+ Col.(4) as Percentage of Col.(2)	Corrected Irrigation Potential	Col.(6) as percentage of Col.(2)	Backlog
1	2	3	4	5	6	7	8
BEED							
Ashti	90,700	10,234	400	11.72	13,704	15.11	6,749
Beed	108,100	7,548	295	7.26	10,107	9.35	14,270
Patoda	93,800	6,552	256	7.26	8,773	9.35	12,379
Georai	120,100	2,984	117	2.58	3,996	3.33	23,086
Majalgaon	126,100	5,387	211	4.44	7,214	5.72	21,222
Kaij	134,900	2,802	110	2.16	3,752	2.78	26,668
Backlog Talukas	673,700	35,507	1,389	5.48	47,546	7.06	104,374
Rest of District	135,800	88,623	3,471	67.82	81,544	60.05	
OSMANABAD							
Osmanabad	99,500	6,202	318	6.55	8,381	8.42	14,056
Tuljapur	95,800	11,157	572	12.24	15,076	15.74	6,527
Paranda	94,500	8,581	440	9.55	11,595	12.27	9,715
Bhoom	57,900	3,125	160	5.67	4,223	7.29	8,833
Kalamb	108,500	1,138	58	1.10	1,537	1.42	22,930
Ahmadpur	116,100	4,733	243	4.28	6,396	5.51	19,785
Backlog Talukas	572,300	34,936	1,791	6.42	47,208	8.25	81,846
Rest of District	542,700	74,244	3,809	14.38	67,572	12.45	54,807
BULDHANA							
Khangaon	109,400	8,036	542	7.84	10,989	10.04	13,681
Mulkapur	130,100	7,668	517	6.29	10,485	8.06	18,853
Backlog Talukas	239,500	15,704	1,059	7.00	21,474	8.97	32,534
Rest of District	442,400	48,926	4,541	12.09	47,697	10.78	52,246
GRAND TOTAL							
Backlog Districts	730,750 hectares.				
Rest of above Districts	107,053 hectares.				

estimate of irrigation potential in the taluka so corrected is shown in Col.6. We take this as the basis of assessing irrigation backlog in the drought-prone talukas. In Col.7, the corrected irrigation potential is expressed as percentage of the net sown area. Talukas in which this percentage is below the State average (22.55) are considered to have a backlog. The backlog is shown in Col.3. For all the drought-prone talukas with a backlog, it adds up to 730,750 hectares. This may be compared with the aggregate backlog of 924,290 hectares when we assessed it at the district level (Col:7 of Table 7.5).

7.20. It will be noticed that in Table 7.6, for each district, we have added two lines: In one line, we summarise the information for the drought-prone talukas with a backlog as finally judged in Col.8 of the Table. It gives the aggregate backlog of these talukas assessed at the taluka level. In the second line, we give the information for the rest of the district. The irrigation potential in this residual part of the district is obtained by subtracting from the total potential of the district, the potential of the drought-prone talukas with a backlog shown in the first line (Col.6). To judge whether this part of the district has a backlog, we treat it as a unit because we do not have talukawise information for all its talukas.

7.21. Of the 12 districts appearing in the above Table, six districts have no backlog when it is assessed at the district level as done in Table 7.5. These are: Jalgaon, Ahmednagar, Pune, Satara, Sangli and Solapur. The irrigation potential in these districts at the district level is above the State Average. Obviously, if the drought-prone talukas with a backlog in these districts are taken out, the irrigation potential in the residual districts would be higher still and they would have no backlog. In the residual parts of these districts, the irrigation potential, as we have estimated it, is as shown in the following: Jalgaon (40.85 per cent); Ahmednagar (58.04 per cent); Pune (48.94 per cent); Satara (50.87 per cent); Sangli (91.53 per cent); and Solapur (61.25 per cent). The remaining six districts have a backlog when assessed at the district level as done in Table 7.5. But, in four of these districts, the irrigation potential in the residual parts have no backlog. The districts are: Nashik (32.41 per cent); Dhule (27.10 per cent); Aurangabad (23.35 per cent); and Beed (60.05 per cent). Only in the other two districts, Osmanabad and Buldhana, the irrigation potential in the residual parts excluding the drought-prone talukas with a backlog is below the State average; it is Osmanabad (12.45 per cent), and Buldhana (10.78 per cent). Their backlog is shown on the corresponding lines. It will be noticed that in these two districts, the backlog of the drought-prone talukas and the rest of the district add up to the backlog of the district as assessed in Table 7.5.

Revised Estimates of Backlog:

7.22. Because we have examined the irrigation potential in the drought-prone areas at the taluka level, the backlog in the 12

districts where these talukas are located, is now completely revised. As mentioned above, in 10 out of the 12 districts, only the drought-prone talukas have a backlog; the residual parts of the districts do not have any backlog. But the backlog of the drought-prone talukas in these districts is much larger than the backlog of the districts assessed at the district level; in fact, six of the districts had no backlog when assessed at the district level. In Osmanabad and Buldhana, the drought-prone talukas and the residual parts of the districts both have a backlog. In the 13 districts with no drought-prone talukas, the backlog remains unrevised. In Table 7.7, we bring together, the revised estimates of the irrigation backlog of different districts.

7.23. Even at the cost of some repetition, we should note that, in so revising the estimates of the backlog, it is only in the drought-prone talukas that we have assessed it at the taluka level. In due course, it will be necessary and advisable to assess the backlog in all the talukas in the State also at the taluka level. But this need not and should not hold up the action for reducing the disparities in irrigation development as they appear in our estimates of the backlog. We suggest that, pending fully talukawise assessment of the irrigation backlog, the estimates of districtwise backlog given in Col.2 of Table 7.7, should be taken as the basis for devising a policy, both short term and long term, for reducing the prevailing glaring disparities in irrigation development. The irrigation backlog in the aggregate amounts to 1,385,920 hectares in Standard Rabi Equivalent. Its cost, estimated at Rs.10,000 per Rabi Equivalent hectare, amounts to Rs.1,385.92 crore.

7.24. In devising a policy to reduce the existing disparities, account has to be taken of the fact that there are a large number of on-going projects under construction which when completed may change the relative positions of the districts considerably. This is of course true of all fields of development. In every field, there would be some on-going development which, when completed, might change the present relative positions of the districts. This is a general problem and, in a later chapter, we shall examine its implications for a policy to reduce the existing disparities. In the present case, we need to examine the matter a little more specifically because, in the case of irrigation, the on-going projects in the aggregate are very large in relation to the present development. This happens because of two reasons: First, because the irrigation projects generally take a long time to complete, there is always a large number of projects under construction. Second, the level of present irrigation development in the State is rather low. As a result, there is almost as much additional potential in the projects under construction as there is already developed. It will be remembered that the irrigation potential of the State as on 30-6-1982 was 2,157,390 hectares (Col.6 of Table 7.3) or 4,114,280 hectares when converted to Standard Rabi Equivalent (Col.4 of Table 7.5). The additional irrigation potential of the on-going projects is 1,830,670 hectares or 3,680,760 Standard Rabi Equivalent Hectares. These are all State Sector projects.

TABLE 7.7

Revised Estimates of Backlog

District	Irrigation Backlog in Std. Rabi Equivalent	Additional Irrigation Potential		Cost of Backlog @ Rs.10,000 per hectare (Rs. Crore)
		From On-going Projects	From Future Projects	
	(thousand hectares)			
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	41.08	127.41	134.11	41.08
3. Raigad	-	20.75	262.85	-
4. Ratnagiri	64.50	76.45	175.79	64.50
<u>KONKAN</u>				
<u>(excluding G.B)</u>	<u>105.58</u>	<u>224.61</u>	<u>572.75</u>	<u>105.58</u>
5. Nashik	48.15	59.61	53.50	48.15
6. Dhule	42.23	43.02	51.19	42.23
7. Jalgaon	31.81	229.17	252.38	31.81
8. Ahmednagar	75.49	288.13	(-) 31.48(?)	75.49
9. Pune	56.39	204.29	(-) 38.80(?)	56.39
10. Satara	22.59	136.06	140.99	22.59
11. Sangli	59.91	299.37	0.39	59.91
12. Solapur	99.75	420.22	(-) 74.30(?)	99.75
13. Kolhapur	-	331.70	466.58	-
<u>WESTERN MAHARASHTRA</u>	<u>436.32</u>	<u>1,941.57</u>	<u>896.22</u>	<u>436.32</u>
14. Aurangabad	75.69	63.27	195.62	75.69
15. Parbhani	-	236.00	140.35	-
16. Beed	104.37	43.21	193.86	104.37
17. Nanded	-	93.26	331.17	-
18. Osmanabad	136.65	32.40	111.92	136.65
<u>MARATHWADA</u>	<u>316.71</u>	<u>468.14</u>	<u>972.92</u>	<u>316.71</u>
19. Buldhana	84.78	(-)10.48(?)	141.16	84.78
20. Akola	92.35	2.25	78.69	92.35
21. Amravati	134.33	122.54	79.84	134.33
22. Yavatmal	105.41	290.34	311.48	105.41
23. Wardha	43.89	195.72	111.48	43.89
24. Nagpur	11.65	87.41	314.80	11.65
25. Bhandara	-	8.06	412.30	-
26. Chandrapur	54.90	350.60	196.74	54.90
<u>VIDARBHA</u>	<u>527.31</u>	<u>1,046.44</u>	<u>1,667.46</u>	<u>527.31</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
<u>(excluding G.B)</u>	<u>1,385.92</u>	<u>3,680.76</u>	<u>4,109.35</u>	<u>1,385.92</u>

? : Needs Checking.

Hence, conversion of their irrigation potential to Standard Rabi Equivalent is made on the basis of ratios between Col.2 of Table 7.5 and Col.7 of Table 7.4, district by district. This is shown in Col.3 of Table 7.7. In Col.4 of the Table is shown the irrigation potential of the future projects converted to Standard Rabi Equivalent making use of the same ratios. As mentioned earlier, the estimates of irrigation potential of the future projects are naturally tentative and subject to revision.

7.25. Our interest is to see to what extent the present backlog as shown in Col.2 of Table 7.7 may be removed by completing some of the on-going projects of which the additional potential is shown in Col.3 of the Table. A straightforward comparison between Cols. 2 and 3 will not help because it must be remembered that, in the case of ten districts, though the backlog is shown as the backlog of the districts, it is in fact the aggregate of the backlog of some of the drought-prone talukas in these districts. Hence, to judge how much of the backlog may be removed by completing some of the on-going projects, we need talukawise break up of the irrigation potential of the on-going projects in at least these ten districts. Because of the different bases of the two sets of estimates, namely, in terms of Standard Rabi Equivalent and the Converted Irrigation Potential (10 acres per MCft. of water), and the difference we have noted between the two, we do not think it appropriate to make any detailed calculations on their basis. We recommend that talukawise estimates of the irrigation potential already created and the additional potential of the on-going projects on a uniform basis should be prepared at the earliest so that one may decide which of the on-going projects are relevant to the removal of the present backlog.

7.26. We understand that at present between 100,000 to 120,000 hectares of irrigation potential is added annually. On that basis, between July 1982 and June 1990, one may expect a net addition to irrigation potential of between 800,000 to 1,000,000 hectares, which in terms of Standard Rabi Equivalent would be between 1,600,000 to 2,000,000 hectares. Thus, removing the estimated backlog of about 1,400,000 hectares appears to be within the range of the Seventh Plan. We suggest that the irrigation programme in the Seventh Plan should be specifically directed to this purpose. This will mean that out of the presently on-going projects, those which are relevant to removal of backlog must receive priority in the Seventh Plan; the completion of the remaining projects will have to be postponed beyond the Seventh Plan. On the other hand, some new projects will have to be commenced and completed within the Seventh Plan period. In the choice of such projects, the districts and talukas where the present backlog cannot be removed by the on-going projects, must receive priority.

Under-utilisation of Irrigation Potential:

7.27. It has been represented to us that, while assessing irrigation backlog, we should take into account the extent of

utilisation of the existing potential. The matter is undoubtedly important. We are aware that, there is much under-utilisation of irrigation potential in some regions or some districts, as indicated by the percentage of actual area irrigated to irrigation potential created. But, as emphasised long ago by the Maharashtra Irrigation Commission (1962), this is a very unsatisfactory measure of utilisation of irrigation potential. Recently, a High Power Committee appointed by the Government of Maharashtra (Irrigation Department, November 1981) to study the problems of under-utilisation of irrigation potential, has observed: "The irrigation potential available during a particular year for utilisation fluctuates from year to year depending upon the actual storage. Similarly, on a number of projects, the traditional crops envisaged in the project report are being replaced by high yielding and hybrid varieties of cereal crops. High yielding varieties need more water than the traditional varieties. Thus, although water is consumed, the area irrigated apparently appears to be lower than that envisaged in the project. Similarly, some times in the hot weather season, crops like summer rice, groundnut etc. not originally envisaged, are grown. As these crops need more water, the area irrigated by them appears to be low. Hence, we agree that in order to have meaningful comparison of utilisation, the actual gross irrigated area should be compared with the "effective potential" worked out on the basis of actual storage and also taking into consideration the different requirements of water for different crops, actually grown under irrigation rather than the projected potential. The gross areas both for potential and utilisation should be worked out on the same basis considering the type of crops, the water requirements and availability of storage during that particular year. If the figures of potential and utilisation as reported are not worked out on this basis, it will give a very distorted picture of actual position." (para 2.11). We understand that the matter is under further consideration of another committee of the Government. In the circumstance, we wish to emphasise that, while the problem of under-utilisation of irrigation potential is real and serious, and needs systematic and sustained attention, the evidence presently available is generally inconclusive and that therefore it must not be made an excuse for not removing the backlog in irrigation development where it exists.

Measure of Disparities in Irrigation Development:

7.28. As noted earlier, irrigation potential is defined as follows: "Irrigation potential is the gross area that can be irrigated from a project in a design year (1st July to 30th June of the succeeding year) for the projected cropping pattern and assumed water allowance on its full development. The gross irrigated area will be the aggregate of the areas irrigated in different cropping seasons, the areas under two seasonal, and perennial crops being counted only once in a year." For reasons explained by the High Power Committee, this is a very unsatisfactory basis for judging utilisation of irrigation potential already created. We wish to emphasise that irrigation potential so defined is also a very unsatisfactory measure of

irrigation development in different regions, districts, or talukas and therefore is a misleading basis for assessing regional disparities. Irrigation potentials, equal in terms of a certain gross irrigated area but with different cropping patterns, are not equivalent because water requirements of different crops are different. To take these into account means that irrigation potential of a project must be expressed not only in terms of a gross area with an assumed cropping pattern that can be irrigated by the project as designed but also in terms of the quantum of water that the project is designed to make available for irrigation in different seasons. The conversion of the gross irrigation potential to Standard Rabi Equivalent is an approximation to this purpose. The converted irrigation potential (10 acres per MCft. of water) in terms of which the irrigation potential in the drought-prone talukas is reported is in fact based on an indirect estimate of quantum of water designed to be made available to each taluka. It seems to us that it will be desirable to bring into the discussion of irrigation development the quantum of water designed to be made available to different regions/districts/talukas by different projects and assess the regional disparities on that basis.

7.29. We suggest that a beginning should be made by expressing irrigation potential of a project, besides in terms of a gross area designed to be irrigated by the project, in terms of the quantum of water that the project is designed to make available for irrigation. It will be desirable to give a break up of this quantum of water into three seasons: Kharif, Rabi and Summer. This is necessary because, the quantum of water designed to be made available for irrigation in the three periods have different connotations in terms of storage created by the project; water supplied during kharif is normally replenished by the monsoons and hence does not come out of the net storage; water supplied during rabi comes out of the storage and is net of the lake losses by evaporation during the period which is unavoidable and hence may be taken as normal; finally, water supplied in summer also comes out of the storage and is net of lake losses due to evaporation. But evaporation losses during summer are large and are avoidable in the sense that there is the alternative of supplying more water during rabi rather than less water, because of evaporation losses, during summer. Hence, it seems to us that irrigation potential of a project will be better defined in terms of quantum of water designed to be made available at the canal head during (a) Kharif, (b) Summer, and (c) Summer, this duly corrected for extra evaporation losses. We understand that these are an essential part of the design data of a project and it seems to us more appropriate to compare the irrigation potentials created by different projects in terms of these parameters rather than gross area with an assumed cropping pattern that the projects are designed to irrigate.

7.30. For a more realistic appraisal of the irrigation development in different regions/districts/talukas it will also be necessary to make a correction for the inevitable difference between what was designed and what is in fact achieved. We

presume that the quantum of water made available at the canal head of each project, during the three seasons, is routinely recorded. We should also consider the quantum of water if any that remained unutilised at the end of each year. We suggest that these four annual parameters for each project should be regularly published. Irrigation potential of a project should then be measured not in terms of what was designed but in terms of what was actually achieved over a period of years; we suggest an average over a period of ten years or a shorter period for which water accounting in the above manner is available.

7.31. We suppose that the above procedure will place the estimates of irrigation potential of a project on a firmer and realistic footing. For an assessment of irrigation development in different regions/districts/talukas, we need to know the regional break up of the irrigation potential of each project by districts/talukas it serves. The present practice of doing this on the basis of division of the Irrigable Command Area (ICA) of the project is of course not satisfactory. Again, what is needed is the quantum of water that the project in fact delivers, in the three seasons, to different districts/talukas averaged over a period of years. We understand that there is a provision of recording quantum of water delivered at the head of each distributory. If this record is regularly available for each project, that should constitute the basis for assessing the irrigation development in different districts/talukas. If the record is not available, because the practice has fallen into disuse, we recommend that immediate steps should be taken to establish this record.

7.32. Judged by the quantum of development expenditure involved and the impact it has on the total process of economic development in a region, irrigation is a major element in the regional disparities in development in Maharashtra. Rightly, it is also so recognised in the popular perception of the phenomenon. Hence, while the process of reducing the disparities in irrigation development must immediately begin on the basis of indicators we have used and the backlog we have assessed, steps must simulataneously be taken to improve the measures of irrigation development in different regions/districts/talukas along the lines suggested above.

CHAPTER VIII

RURAL ELECTRIFICATION

8.1. The electrification of villages and energisation of agricultural pumpsets are two major items of Rural Electrification Programme. According to the definition of the Central Electricity Authority, a village is considered "electrified" if electricity is being used within its revenue area for any purpose whatsoever. As on 31-3-1961, in the entire State, only 853 villages were electrified and only 6,695 agricultural pumps were energised. In comparison, as on 31-3-1983, 30,865 villages are electrified and 7,90,645 agricultural pumps are energised. Clearly, in 1961, rural electrification was just beginning. We shall not, therefore, discuss the districtwise details as on 31-3-1961, but confine attention to the position as on 31-3-1983. We shall first consider the electrification of villages.

Electrification of Villages:

8.2. In Table 8.1, we give the number of tribal and non-tribal villages as per 1971 Population Census and the number of tribal and non-tribal villages which were electrified as on 31-3-1983. In Cols.6 and 7 of the Table are shown the percentages of tribal and non-tribal villages electrified. It will be noticed that in the State as a whole, 91.22 per cent of the non-tribal villages but only 61.91 per cent of the tribal villages were electrified. We suggest that the district backlog in this subject should be assessed on the basis of number of additional villages which must be electrified in order to bring the percentage of electrified villages in both tribal and non-tribal villages to the State Average of 91.22 for the non-tribal villages. The relevant data are given in Table 8.1A. The cost of electrification of villages is worked out at the rate of Rs.1.80 lakh per village, as estimated by the Maharashtra State Electricity Board. The total cost of the backlog amounts to Rs.54.90 crore.

Energisation of agricultural pumpsets:

8.3. Turning to energisation of agricultural pumpsets, as mentioned above, a total of 7,90,645 pumpsets were energised as on 31-3-1983. Their districtwise distribution is given in Col.5 of Table 8.2. To judge the districtwise achievement, we considered the following alternatives: Relate the number of pumps energised to (i) number of irrigation wells, (ii) irrigation wells in use, and (iii) number of applications for energising received, i.e. the number of pumps energised plus the pending applications. The relevant data are given in Cols.3, 4, and 7 of the Table. The data on wells relate to 1978-79 while the data on

Table 8.1

Rural Electrification

District	Number of Villages As Per 1971 Census		Villages Elec-trified upto March 31, 1983		Col.(4) as per-centage of Col. (2)	Col.(5) as per-centage of Col. (3)
	Tribal	Non-Tribal	Tribal	Non-Tribal		
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	1,023	565	755	498	73.80	88.14
3. Raigad	43	1,656	42	1,327	97.67	80.13
4. Ratnagiri	-	1,514	-	1,229	-	81.18
<u>KONKAN</u>	<u>1,066</u>	<u>3,735</u>	<u>797</u>	<u>3,054</u>	<u>74.77</u>	<u>81.77</u>
(excl. G.B.)						
5. Nashik	775	853	585	873(?)	75.48	102.34
6. Dhule	865	514	580	515(?)	67.05	100.19
7. Jalgaon	39	1,384	39	1,399(?)	100.00	101.08
8. Ahmednagar	106	1,206	97	1,159	91.51	96.10
9. Pune	142	1,339	103	1,123	72.54	83.87
10. Satara	-	1,142	-	1,075	-	94.13
11. Sangli	-	539	-	526	-	97.59
12. Solapur	-	948	-	951(?)	-	100.32
13. Kolhapur	-	1,083	-	1,014	-	93.63
<u>WESTERN MAHARASHTRA</u>	<u>1,927</u>	<u>9,008</u>	<u>1,404</u>	<u>8,635</u>	<u>72.86</u>	<u>95.86</u>
14. Aurangabad	-	1,866	-	1,820	-	97.53
15. Parbhani	135	1,370	135	1,200	100.00	87.59
16. Beed	-	1,028	-	1,363(?)	-	132.59
17. Nanded	-	1,324	-	1,024	-	77.34
18. Osmanabad	-	1,387	-	1,380	-	99.50
<u>MARATHWADA</u>	<u>135</u>	<u>6,975</u>	<u>135</u>	<u>6,787</u>	<u>100.00</u>	<u>97.30</u>
19. Buldhana	-	1,232	-	1,066	-	86.53
20. Akola	-	1,489	-	1,249	-	83.88
21. Amravati	309	1,328	197	1,255	63.75	94.50
22. Yavatmal	436	1,211	360	1,140	82.57	94.14
23. Wardha	-	962	-	850	-	88.36
24. Nagpur	92	1,533	91	1,343	98.91	87.61
25. Bhandara	258	1,242	155	999	60.08	80.43
26. Chandrapur	1,820	1,020	602	746	33.08	73.14
<u>VIDARBHA</u>	<u>2,915</u>	<u>10,017</u>	<u>1,405</u>	<u>8,648</u>	<u>48.20</u>	<u>86.33</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>6,043</u>	<u>29,735</u>	<u>3,741</u>	<u>27,124</u>	<u>61.91</u>	<u>91.22</u>

(?) Needs Checking.

Table 8.1A

Number of Villages Requiring Rural Electrification to Arrive at State Average *

District	Additional Villages Requiring Electrification		Total	Cost (Rs. Lakh)
	Tribal	Non-Tribal		
1. Greater Bombay	-	-	-	-
2. Thane	178	17	195	351.00
3. Raigad	-	184	184	331.20
4. Ratnagiri	-	152	152	273.60
<u>KONKAN</u>	<u>178</u>	<u>353</u>	<u>531</u>	<u>955.80</u>
<u>(excl. G.B.)</u>				
5. Nashik	122	-	122	219.60
6. Dhule	209	-	209	376.20
7. Jalgaon	-	-	-	-
8. Ahmednagar	-	-	-	-
9. Pune	27	98	125	225.00
10. Satara	-	-	-	-
11. Sangli	-	-	-	-
12. Solapur	-	-	-	-
13. Kolhapur	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>358</u>	<u>98</u>	<u>456</u>	<u>820.80</u>
14. Aurangabad	-	-	-	-
15. Parbhani	-	50	50	90.00
16. Beed	-	-	-	-
17. Nanded	-	184	184	331.20
18. Osmanabad	-	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>234</u>	<u>234</u>	<u>421.20</u>
19. Buldhana	-	58	58	104.40
20. Akola	-	109	109	196.20
21. Amravati	85	-	85	153.00
22. Yavatmal	38	-	38	68.40
23. Wardha	-	28	28	50.40
24. Nagpur	-	55	55	99.00
25. Bhandara	80	134	214	385.20
26. Chandrapur	1,058	184	1,242	2,235.60
<u>VIDAREHA</u>	<u>1,261</u>	<u>568</u>	<u>1,829</u>	<u>3,292.20</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>1,797</u>	<u>1,253</u>	<u>3,050</u>	<u>5,490.00</u>

* 91.22 per cent

Table 8.2

Irrigation Wells and Agricultural Pumpsets Energised

District	Gross	Number of		Agricul-	Pending	Col.(5)
	Cropped	Irriga-	Irriga-	tural	Applica-	+
	Area	tion	tion	Pumps	tions	Col.(6)
	1981-82	Wells	Wells	Energised	for Agri-	
	([^] 000	1978-79	in use	as on	cultural	
	hectares)	1978-79	31-3-1983	31-3-1983	Pumps as	
					on 31-3-83	
1	2	3	4	5	6	7
1.Greater Bombay	6.40	-	-	-	-	-
2.Thane	279.50	8,074	7,591	8,574	767	9,341
3.Raigad	227.30	5,252	4,750	3,969	342	4,311
4.Ratnagiri	389.70	14,177	10,857	6,679	983	7,662
<u>KONKAN</u>	<u>896.50</u>	<u>27,503</u>	<u>23,198</u>	<u>19,222</u>	<u>2,092</u>	<u>21,314</u>
(excl. G.B.)						
5.Nashik	985.30	77,876	74,184	89,541	23,781	113,322
6.Dhule	770.00	30,957	26,745	36,534	9,475	46,009
7.Jalgaon	979.70	57,668	49,676	61,175	16,820	77,995
8.Ahmednagar	1,334.40	93,419	84,125	72,784	41,693	114,477
9.Pune	1,147.00	64,952	60,272	41,704	9,487	51,191
10.Satara	745.50	43,876	40,171	25,717	6,580	32,297
11.Sangli	662.40	47,358	43,891	37,156	12,330	49,486
12.Solapur	1,213.50	59,772	55,913	36,173	31,857	68,030
13.Kolhapur	473.80	18,041	15,866	27,084	4,351	31,435
<u>WESTERN MAHARASHTRA</u>	<u>8,275.60</u>	<u>493,919</u>	<u>450,843</u>	<u>427,868</u>	<u>156,374</u>	<u>584,242</u>
14.Aurangabad	1,373.10	79,449	74,329	62,219	34,531	96,750
15.Parbhani	1,153.20	29,568	26,793	22,841	2,707	25,548
16.Beed	895.60	35,135	33,152	21,966	13,781	35,747
17.Nanded	776.30	12,276	12,024	20,724	2,535	23,259
18.Osmanabad	1,346.20	48,838	44,642	43,730	8,857	52,587
<u>MARATHWADA</u>	<u>5,544.40</u>	<u>205,266</u>	<u>190,990</u>	<u>171,480</u>	<u>62,411</u>	<u>233,891</u>
19.Buldhana	786.90	34,642	25,043	34,334	9,210	43,544
20.Akola	841.10	20,918	12,999	22,024	6,328	28,352
21.Amravati	776.80	34,598	28,457	45,408	8,362	53,770
22.Yavatmal	873.70	19,570	14,874	23,169	3,388	26,557
23.Wardha	460.50	28,109	16,084	20,877	3,073	23,950
24.Nagpur	619.70	57,861	31,174	32,356	4,800	37,156
25.Bhandara	538.40	16,033	11,749	8,870	1,301	10,171
26.Chandrapur	765.90	15,197	10,949	5,037	1,024	6,061
<u>VIDARBHA</u>	<u>5,663.00</u>	<u>226,928</u>	<u>151,329</u>	<u>192,075</u>	<u>37,486</u>	<u>229,561</u>
<u>MAHARASHTRA STATE</u>	<u>20,385.90</u>	<u>953,616</u>	<u>816,308</u>	<u>790,645</u>	<u>258,413</u>	<u>1049,058</u>
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	20,379.50	953,616	816,308	790,645	258,413	1049,058

Table 8.2A

Backlog in Energising of Pumpsets

District	Number of Pumpsets Energised per '000 hectares	Additional Pumpsets to be Energised to bring to State Average	Cost @ Rs0.13 lakh per Pumpset energisation (Rs. Lakh)	Pending Applications for Agricultural Pumps Energisation as on 31-3-1983
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	30.68	2,265	294.45	767
3. Raigad	17.46	4,846	629.98	342
4. Ratnagiri	17.14	8,434	1,096.42	983
<u>KONKAN</u>	<u>21.44</u>	<u>15,545</u>	<u>2,020.85</u>	<u>2,092</u>
<u>(excl. G.B.)</u>				
5. Nashik	90.88	-	-	23,781
6. Dhule	47.45	-	-	9,475
7. Jalgaon	62.44	-	-	16,820
8. Ahmednagar	54.54	-	-	41,693
9. Pune	36.36	2,777	361.01	9,487
10. Satara	34.50	3,193	415.09	6,580
11. Sangli	56.09	-	-	12,330
12. Solapur	29.81	10,887	1,415.31	31,857
13. Kolhapur	61.86	-	-	4,351
<u>WESTERN MAHARASHTRA</u>	<u>51.70</u>	<u>16,857</u>	<u>2,191.41</u>	<u>156,374</u>
14. Aurangabad	45.31	-	-	34,531
15. Parbhani	19.81	21,880	2,844.40	2,707
16. Beed	24.53	12,765	1,659.45	13,781
17. Nanded	26.73	9,381	1,219.53	2,535
18. Osmanabad	32.48	8,476	1,101.88	8,857
<u>MARATHWADA</u>	<u>30.93</u>	<u>52,502</u>	<u>6,825.26</u>	<u>62,411</u>
19. Buldhana	43.63	-	-	9,210
20. Akola	26.18	10,594	1,377.22	6,328
21. Amravati	58.46	-	-	8,362
22. Yavatmal	26.52	10,713	1,392.69	3,388
23. Wardha	45.34	-	-	3,073
24. Nagpur	52.21	-	-	4,800
25. Bhandara	16.47	12,009	1,561.17	1,301
26. Chandrapur	6.58	24,665	3,206.45	1,024
<u>VIDARBHA</u>	<u>33.92</u>	<u>57,981</u>	<u>7,537.53</u>	<u>37,486</u>
<u>MAHARASHTRA STATE</u>	<u>38.78</u>	<u>142,885</u>	<u>18,575.05</u>	<u>258,413</u>
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>38.80</u>	<u>142,885</u>	<u>18,575.05</u>	<u>258,413</u>

Table 8.3

Cost of Backlog in Rural Electrification

(Rs. Lakh)

District	Electrifi- cation of Villages	Energisa- tion of Pumpsets	Total Cost Cols (2)+(3)
1	2	3	4
1. Greater Bombay	-	-	-
2. Thane	351.00	294.45	645.45
3. Raigad	331.20	629.98	961.18
4. Ratnagiri	273.60	1,096.42	1,370.02
<u>KONKAN</u>	<u>955.80</u>	<u>2,020.85</u>	<u>2,976.65</u>
<u>(excluding G.B.)</u>			
5. Nashik	219.60	-	219.60
6. Dhule	376.20	-	376.20
7. Jalgaon	-	-	-
8. Ahmednagar	-	-	-
9. Pune	225.00	361.01	586.01
10. Satara	-	415.09	415.09
11. Sangli	-	-	-
12. Solapur	-	1,415.31	1,415.31
13. Kolhapur	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>820.80</u>	<u>2,191.41</u>	<u>3,012.21</u>
14. Aurangabad	-	-	-
15. Parbhani	90.00	2,844.40	2,934.40
16. Beed	-	1,659.45	1,659.45
17. Nanded	331.20	1,219.53	1,550.73
18. Osmanabad	-	1,101.88	1,101.88
<u>MARATHWADA</u>	<u>421.20</u>	<u>6,825.26</u>	<u>7,246.46</u>
19. Buldhana	104.40	-	104.40
20. Akola	196.20	1,377.22	1,573.42
21. Amravati	153.00	-	153.00
22. Yavatmal	68.40	1,392.69	1,461.09
23. Wardha	50.40	-	50.40
24. Nagpur	99.00	-	99.00
25. Bhandara	385.20	1,561.17	1,946.37
26. Chandrapur	2,235.60	3,206.45	5,442.05
<u>VIDARBHA</u>	<u>3,292.20</u>	<u>7,537.53</u>	<u>10,829.73</u>
<u>MAHARASHTRA STATE</u>			
<u>MAHARASHTRA STATE</u>			
<u>(excluding G.B.)</u>	<u>5,490.00</u>	<u>18,575.05</u>	<u>24,065.05</u>

number of pumps energised and pending applications relate to 31-3-1983. The two do not match. In a number of districts, the number of pumps energised plus pending applications (Col.7) exceeds the number of irrigation wells (Col.3); in some cases, even the number of energised pumps (Col.5) exceeds the number of wells (Col.3), as for instance, in Kolhapur, Nanded and Amravati. Either the data on number of wells is not quite accurate or more likely a number of new wells have come up during 1979-83. We also thought of judging the achievement in relation to the applications received that is number of pumps energised plus the pending applications. This could be a reasonable measure of demand for energising. However, the number of applications may depend upon the speed with which connections are given. In the circumstance, we think it will be appropriate to judge the achievement and backlog by relating the number of energised pumps to the gross cropped area in the district. Relevant data are given in Table 8.2A.

8.4. It will be seen that the number of energised pumpsets per 1,000 hectares is 38.80 in the whole State (Col.2). It will need additional 142,885 pumpsets to be energised in order to bring the lagging districts to the State average (Col.3). The cost of this, at the rate of Rs.13,000 per pumpset, as estimated by MSEB, works out to Rs.185.75 crore (Col.4). Compared to the 142,885 new connection needed to remove the backlog in lagging districts, there are 258,413 applications pending as on 31-3-1983. In a number of districts there is no backlog but there are a number of pending applications. We suggest that in dealing with the applications, priority should be given to applications in districts where there is a backlog. After these are cleared, applications from districts having relatively smaller number of energised pumpsets per 1,000 hectares should receive priority.

Backlog in Rural Electrification:

8.5. In Table 8.3, we bring together, the cost of backlog in rural electrification, namely, in (i) Electrification of villages, and (ii) Energisation of pumpsets. It adds up to Rs.240.65 crore; Rs.54.90 crore in electrification of villages and Rs.185.75 crore in energisation of pumpsets.

CHAPTER IX

GENERAL EDUCATION

9.1. We shall now turn to the social services and begin with General Education. General Education in the State is divided into following stages. Side by side we also show the enrolment of students in 1982-83:

Enrolment by Stages of General Education 1982-83

<u>Stage</u>	<u>Enrolment</u>
Primary (Std. I - IV)	75,30,456
Middle (Std. V - VII)	30,91,086
Secondary (Std. VIII - X)	17,52,510
Higher Secondary (Std. XI - XII)	4,37,198
University	2,86,220

TOTAL	130,97,470
	=====

9.2. In Table 9.1, we give the enrolment in different districts as percentage of the population. At the State level, excluding Greater Bombay, the percentage enrolment in 1982-83 was as under:

	<u>Enrolment as per cent</u> <u>of population</u>
Primary	12.32
Middle	4.79
Secondary	2.62
Higher Secondary	0.62
University	0.36

TOTAL	20.71
	=====

In Table 9.2, we give the district backlog in terms of additional enrolment in each category needed to bring the lagging districts on par with the State Average (excluding Greater Bombay). We exclude Greater Bombay because the enrolment per lakh of population at all stages except the primary (Std. I - IV) in Greater Bombay is higher than the State Average. The lower enrolment at the primary stage is presumably because of smaller proportion of the population in the relevant age-group. Clearly, all districts of Marathwada, and Buldhana, Yavatmal and Chandrapur districts in Vidarbha, have backlog in education at all stages. In Western Maharashtra, Dhule and Solapur have also a certain amount of backlog. The additional enrolment needed in the aggregate is as under:

Table 9.1

Educational Enrolment in 1982-83 as Percentage to
1981 Population

District	Primary Stage (Std. I - IV)	Middle Stage (Std. V - VII)	Second-ary Stage (Std. VIII - X)	Higher Second-ary Stage (Std. XI - XII)	Degree and Post-Degree Education in Colleges and Universities
1	2	3	4	5	6
1. Greater Bombay	9.83	5.83	3.90	1.24	0.89
2. Thane	11.99	5.05	2.76	0.62	0.35
3. Raigad	14.16	5.13	2.72	0.38	0.15
4. Ratnagiri	13.62	6.66	2.97	0.40	0.16
<u>KONKAN</u>					
(excl. G.B.)	12.95	5.60	2.82	0.50	0.25
5. Nashik	12.75	4.78	2.72	0.62	0.44
6. Dhule	11.82	3.92	2.30	0.66	0.37
7. Jalgaon	13.20	4.59	2.79	0.75	0.49
8. Ahmednagar	13.00	4.92	2.63	0.64	0.47
9. Pune	13.04	5.94	3.25	0.80	0.61
10. Satara	14.08	6.32	3.39	0.74	0.46
11. Sangli	13.23	5.61	3.16	0.74	0.45
12. Solapur	12.04	4.31	2.32	0.58	0.39
13. Kolhapur	12.63	5.21	2.86	0.66	0.40
<u>WESTERN MAHARASHTRA</u>					
14. Aurangabad	11.38	3.91	2.02	0.56	0.34
15. Parbhani	8.94	2.89	1.25	0.26	0.13
16. Beed	10.53	3.34	1.79	0.43	0.21
17. Nanded	10.56	3.24	1.65	0.46	0.26
18. Osmanabad	13.25	4.56	2.30	0.52	0.27
<u>MARATHWADA</u>					
19. Buldhana	12.12	4.02	2.19	0.42	0.15
20. Akola	12.06	4.62	2.71	0.62	0.25
21. Amravati	12.53	5.22	2.98	0.75	0.37
22. Yavatmal	12.02	4.29	2.16	0.45	0.19
23. Wardha	12.69	5.41	3.31	0.84	0.32
24. Nagpur	11.89	5.60	3.68	1.07	0.73
25. Bhandara	11.95	4.45	2.62	0.57	0.17
26. Chandrapur	11.06	3.57	1.91	0.45	0.22
<u>VIDARBHA</u>					
	11.98	4.65	2.71	0.66	0.33
<u>MAHARASHTRA STATE</u>					
	11.99	4.92	2.79	0.70	0.43
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	12.32	4.79	2.62	0.62	0.36

Table 9.2

Backlog in Education Enrolment

District	Primary Stage (Std. I - IV)	Middle Stage (Std. V - VII)	Secondary Stage (Std. VIII - X)	Higher Secondary Stage (Std. XI - XII)	University
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	11,060	-	-	-	335
3. Raigad	-	-	-	3,567	3,122
4. Ratnagiri	-	-	-	4,645	3,167
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	<u>11,060</u>	<u>-</u>	<u>-</u>	<u>8,212</u>	<u>6,624</u>
5. Nashik	-	299	-	-	-
6. Dhule	10,251	17,738	6,561	-	-
7. Jalgaon	-	2,537	-	-	-
8. Ahmednagar	-	-	-	-	-
9. Pune	-	-	-	-	-
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	-	-
12. Solapur	7,308	12,529	7,830	1,044	-
13. Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>17,559</u>	<u>33,203</u>	<u>14,391</u>	<u>1,044</u>	<u>-</u>
14. Aurangabad	22,874	21,414	14,601	1,460	487
15. Parbhani	61,833	34,758	25,062	6,586	4,208
16. Beed	26,600	21,457	12,334	2,823	2,229
17. Nanded	30,788	27,115	16,969	2,799	1,749
18. Osmanabad	-	5,130	7,138	2,231	2,008
<u>MARATHWADA</u>	<u>142,095</u>	<u>109,874</u>	<u>76,104</u>	<u>15,899</u>	<u>10,681</u>
19. Buldhana	3,018	11,618	6,488	3,018	3,168
20. Akola	4,751	3,106	-	-	2,010
21. Amravati	-	-	-	-	-
22. Yavatmal	5,212	8,687	7,992	2,954	2,954
23. Wardha	-	-	-	-	371
24. Nagpur	11,132	-	-	-	-
25. Bhandara	6,799	6,248	-	1,103	3,491
26. Chandrapur	25,901	25,079	14,595	3,495	2,878
<u>VIDARBHA</u>	<u>56,813</u>	<u>54,738</u>	<u>29,075</u>	<u>10,570</u>	<u>14,872</u>
<u>MAHARASHTRA STATE</u>					
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>227,527</u>	<u>197,815</u>	<u>119,570</u>	<u>35,725</u>	<u>32,177</u>

Aggregate Backlog

Primary	227,527
Middle	197,815
Secondary	119,570
Higher Secondary	35,725
University	32,177

TOTAL	612,814
	=====

Primary Education:

9.3. To determine the steps to be taken to remove the backlog, the situation will have to be examined in depth, so that action may be initiated at specific points. We shall do this only in relation to Government and Government-aided institutions. In primary education, some of the underlying causes may be shortage of primary schools, shortage of teachers, shortage of trained teachers and excessive proportion of single-teacher schools. Relevant data are given in Table 9.3. In Table 9.3A is given backlog in terms of the several items, in order to bring up lagging districts on par with State Average (excluding Greater Bombay) in each case. For instance, in Thane, the backlog consists of 602 schools, 61,137 students, 2,405 teachers, 2,648 trained teachers and 226 too many single-teacher schools involving 11,525 too many students in such schools. In Parbhani, the backlog consists of 126 schools, 79,020 students, 2,484 teachers, 2,715 trained teachers, and 264 too many single-teacher schools involving 18,224 students in such schools. Some of these items are related. For instance, much of the backlog in the number of teachers might be removed while removing the backlog in number of schools and reducing the number of single-teacher schools. But this is not necessarily so. For instance, in Aurangabad, Beed and Nanded, there is no backlog in the number of schools, but there is a backlog in the number of teachers. There are, of course, too many single-teacher schools in these districts and reducing their number might remove part of the backlog in the number of teachers. Backlog in the number of trained teachers is an independent item and calls for independent action. The situation in each district will have to be examined in detail and necessarily talukawise. In a number of districts, particularly in Marathwada, it was represented to us that a number of schools had no buildings or very unsatisfactory ones. We are sorry that we have not been able to obtain data on this point. But, undoubtedly, it is relevant.

Secondary Education:

9.4. Similar data pertaining to secondary education is given in Tables 9.4 and 9.4A. It will be noticed that in Thane, Raigad, Solapur, Kolhapur, Parbhani, Beed, Nanded and Chandrapur, there is a backlog in the number of schools, number of students, number of teachers and number of trained teachers. In Dhule and Yavatmal, there is no backlog in the number of schools, but there

Table 9.3

Primary Schools (1982 - 83)

District	Number of Primary Schools per lakh of population	Enrolment of Students in Primary Schools per lakh of population	Total Teachers in Primary Schools per lakh of population	Percentage of Trained Teachers to Total Teachers in Primary Schools	Percentage of Single Teacher Schools to Total Primary Schools	Percentage of Enrolment in Single Teacher Schools to Total Primary Schools
1	2	3	4	5	6	7
1. Greater Bombay	19.85	10,194.49	275.88	98.90	-	-
2. Thane	72.86	12,135.09	292.76	88.89	42.59	10.72
3. Raigad	155.47	17,045.22	470.31	89.06	40.68	13.24
4. Ratnagiri	172.07	18,186.47	592.43	94.50	25.85	7.58
<u>KONKAN</u>						
(excl. G.B.)	120.67	15,023.86	420.88	91.32	34.81	10.15
5. Nashik	87.17	14,315.85	364.67	95.22	36.23	8.75
6. Dhule	89.35	13,127.83	343.90	95.45	41.05	11.45
7. Jalgaon	68.40	15,149.98	392.78	96.04	14.57	2.89
8. Ahmednagar	91.05	14,497.90	393.46	95.23	30.78	6.98
9. Pune	78.40	14,703.17	359.42	92.09	33.60	6.38
10. Satara	106.74	16,872.41	472.46	97.37	32.44	7.36
11. Sangli	70.50	15,908.81	443.20	94.71	13.25	2.19
12. Solapur	71.64	13,939.38	375.46	94.32	21.34	4.20
13. Kolhapur	75.53	15,486.07	395.20	95.92	29.69	5.00
<u>WESTERN MAHARASHTRA</u>	81.60	14,823.24	388.28	94.90	29.45	6.10
14. Aurangabad	99.82	12,769.89	326.21	85.27	41.09	12.30
15. Parbhani	83.91	9,639.72	228.71	83.44	50.55	18.22
16. Beed	104.24	11,534.69	280.41	87.26	53.26	17.81
17. Nanded	97.92	11,324.71	285.54	84.42	45.07	13.73
18. Osmanabad	81.95	14,178.75	357.79	92.29	25.11	5.97
<u>MARATHWADA</u>	93.06	12,055.80	300.81	87.06	42.30	12.53
19. Buldhana	90.27	13,559.53	345.84	97.16	31.28	7.28
20. Akola	90.20	13,552.79	357.81	97.51	31.86	6.57
21. Amravati	83.16	14,059.02	379.98	96.14	25.45	4.80
22. Yavatmal	106.65	13,829.39	357.02	94.23	36.37	9.74
23. Wardha	101.88	14,082.50	366.82	96.68	26.48	5.71
24. Nagpur	70.34	12,486.89	311.73	98.19	29.21	5.92
25. Bhandara	81.19	13,593.55	319.93	92.07	25.07	5.21
26. Chandrapur	108.58	12,281.95	321.02	83.00	42.16	11.17
<u>VIDARBHA</u>	89.94	13,317.63	341.47	94.31	31.91	7.06
<u>MAHARASHTRA STATE</u>	81.50	13,464.91	352.88	93.67	32.28	7.10
<u>MAHARASHTRA STATE</u> (excl. G.B.)	90.82	13,959.21	364.52	93.07	33.35	7.89

Table 9.3A

Backlog in Primary Education

District	Primary Schools	Enrolment in Primary Schools	Teachers	Trained Teachers	Excess of Single Teacher Schools	Students in the excess Single Teacher Schools
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	602	61,137	2,405	2,648	226	11,525
3. Raigad	-	-	-	281	169	13,236
4. Ratnagiri	-	-	-	-	-	-
KONKAN						
<u>(excl. G.B.)</u>	<u>602</u>	<u>61,137</u>	<u>2,405</u>	<u>2,929</u>	<u>395</u>	<u>24,761</u>
5. Nashik	109	-	-	-	75	3,694
6. Dhule	30	17,046	423	296	141	9,578
7. Jalgaon	587	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-	-
9. Pune	517	-	212	344	8	-
10. Satara	-	-	-	-	-	-
11. Sangli	372	-	-	-	-	-
12. Solapur	501	517	-	-	-	-
13. Kolhapur	383	-	-	-	-	-
WESTERN MAHARASHTRA	<u>2,499</u>	<u>17,563</u>	<u>635</u>	<u>640</u>	<u>224</u>	<u>13,272</u>
14. Aurangabad	-	28,941	932	1,486	188	13,689
15. Parbhani	126	79,020	2,484	2,715	264	18,224
16. Beed	-	36,029	1,250	1,406	308	17,006
17. Nanded	-	46,086	1,382	1,718	201	11,561
18. Osmanabad	198	-	150	202	-	-
MARATHWADA	<u>324</u>	<u>190,076</u>	<u>6,198</u>	<u>7,527</u>	<u>961</u>	<u>60,480</u>
19. Buldhana	8	6,030	282	49	-	-
20. Akola	11	7,425	123	-	-	-
21. Amravati	143	-	-	-	-	-
22. Yavatmal	-	2,256	130	49	56	4,448
23. Wardha	-	-	-	-	-	-
24. Nagpur	530	38,116	1,367	859	-	-
25. Bhandara	177	6,719	819	821	-	-
26. Chandrapur	-	34,478	894	1,497	197	8,277
VIDARBHA	<u>869</u>	<u>95,024</u>	<u>3,615</u>	<u>3,275</u>	<u>253</u>	<u>12,725</u>
MAHARASHTRA STATE						
MAHARASHTRA STATE						
<u>(excl. G.B.)</u>	<u>4,294</u>	<u>363,800</u>	<u>12,853</u>	<u>14,371</u>	<u>1,833</u>	<u>111,238</u>

Table 9.4

Government and Government Aided Secondary Schools (1982-83)

District	Number of Secondary Schools per lakh of Population	Enrolment of Students in Secondary Schools per lakh of Population	Total Teachers in Secondary Schools per lakh of Population	Percentage of Trained Teachers to Total Teachers in Secondary Schools
1	2	3	4	5
1. Greater Bombay	7.55	6,796.88	218.84	96.09
2. Thane	7.25	5,303.50	165.92	95.63
3. Raigad	9.49	4,963.97	173.57	91.59
4. Ratnagiri	13.26	5,219.88	192.49	90.31
<u>KONKAN</u>				
(excl. G.B.)	9.55	5,205.47	175.63	93.00
5. Nashik	9.53	5,684.49	190.62	97.44
6. Dhule	10.19	5,255.00	177.00	97.08
7. Jalgaon	9.51	5,585.09	193.14	97.11
8. Ahmednagar	9.75	6,085.31	188.97	97.54
9. Pune	8.40	6,444.76	196.81	96.38
10. Satara	12.21	6,666.63	221.91	96.66
11. Sangli	12.78	6,106.39	212.32	97.09
12. Solapur	8.85	4,615.49	154.51	97.69
13. Kolhapur	9.30	5,145.93	173.24	97.65
<u>WESTERN MAHARASHTRA</u>	9.80	5,758.71	189.16	97.12
14. Aurangabad	9.99	4,191.26	152.87	98.66
15. Parbhani	6.40	3,723.23	124.25	92.39
16. Beed	9.82	4,083.77	149.32	96.44
17. Nanded	9.26	4,316.96	152.34	94.11
18. Osmanabad	12.15	5,922.57	213.08	96.28
<u>MARATHWADA</u>	9.99	4,506.39	160.66	95.40
19. Buldhana	10.27	4,956.46	166.63	96.66
20. Akola	10.24	5,735.01	188.35	95.18
21. Amravati	12.36	6,590.06	208.12	95.69
22. Yavatmal	10.30	4,686.71	154.25	92.16
23. Wardha	13.06	7,754.87	242.60	95.95
24. Nagpur	11.78	8,655.48	267.57	95.06
25. Bhandara	9.36	5,579.90	166.96	93.19
26. Chandrapur	7.59	4,349.74	132.37	92.76
<u>VIDARBHA</u>	10.48	6,090.07	191.54	94.66
<u>MAHARASHTRA STATE</u>	9.61	5,715.43	187.69	95.74
<u>MAHARASHTRA STATE</u>				
(excl. G.B.)	9.92	5,551.98	182.98	95.67

Table 9.4A

Backlog in Secondary Education

District	Secondary Schools	Enrolment in Sec- ondary Schools	Teachers	Trained Teachers
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	89	8,235	572	549
3. Raigad	6	8,739	140	239
4. Ratnagiri	-	7,010	-	218
<u>KONKAN</u>				
(excl. G.B.)	<u>95</u>	<u>23,984</u>	<u>712</u>	<u>1,006</u>
5. Nashik	12	-	-	-
6. Dhule	-	6,087	123	67
7. Jalgaon	11	-	-	-
8. Ahmednagar	5	-	-	-
9. Pune	63	-	-	-
10. Satara	-	-	-	-
11. Sangli	-	-	-	-
12. Solapur	28	24,441	743	629
13. Kolhapur	16	10,175	244	147
<u>WESTERN MAHARASHTRA</u>	<u>135</u>	<u>40,703</u>	<u>1,110</u>	<u>843</u>
14. Aurangabad	-	33,110	733	673
15. Parbhani	64	33,455	1,074	1,102
16. Beed	1	21,818	500	461
17. Nanded	12	21,605	536	554
18. Osmanabad	-	-	-	-
<u>MARATHWADA</u>	<u>77</u>	<u>109,988</u>	<u>2,843</u>	<u>2,790</u>
19. Buldhana	-	8,985	247	211
20. Akola	-	-	-	17
21. Amravati	-	-	-	-
22. Yavatmal	-	15,033	665	730
23. Wardha	-	-	-	-
24. Nagpur	-	-	-	42
25. Bhandara	10	-	294	357
26. Chandrapur	48	24,714	1,040	1,074
<u>VIDARBHA</u>	<u>58</u>	<u>48,732</u>	<u>2,246</u>	<u>2,431</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
(excl. G.B.)	<u>365</u>	<u>223,407</u>	<u>6,911</u>	<u>7,070</u>

is backlog in the number of students, number of teachers and number of trained teachers. Here again, the situation in each district will have to be examined in detail and appropriate action taken. We may note a few relevant circumstances.

9.5. We understand that because of paucity of funds, only a few aided secondary schools are presently sanctioned each year and, in the absence of any other criterion, they are equally distributed between the districts. For instance, in 1983-84, only 60 new secondary schools on a grant basis were sanctioned and they were distributed 2 per district. This seems entirely inappropriate. Whatever the number of aided schools that can be sanctioned each year will have to be henceforth located in districts lagging behind in the number of aided secondary schools.

9.6. A circumstance affecting the efficacy and hence enrolment in secondary schools in Marathwada is the large number of ex-government schools presently placed under the management of Zilla Parishads. Out of 6,482 secondary schools in the State, 434 are under the management of the Zilla Parishads. Their regional distribution is as under:

	<u>Number of ex-govt. secondary schools under Z.P. management</u>
Konkan	2
Western Maharashtra	6
Marathwada	375
Vidarbha	51

TOTAL	434
	=====

Thus, these schools are largely concentrated in Marathwada. There they constitute 38.94 per cent of all secondary schools and enrolment in them constitutes 47.96 per cent of all secondary schools enrolment. It was represented to us that the management of these schools is far from satisfactory and that, for this state of affairs, the grant-in-aid policy of the State Government was at least partly responsible. Apparently, the State Government deals with these schools in the same manner as it deals with the private aided schools. The salary grants are released from month to month while other expenditure is allowed upto the limit of 12 per cent of the expenditure on salaries and is reimbursed at the end of the year. We understand that because the Zilla Parishads, unlike the private institutions, are unable to incur expenditure in advance to be reimbursed at the end of the year, these schools have suffered. The Deputy Director, Education, Aurangabad had officially reported that in 1981-82, the 374 schools then under the Z.P. management (i) Did not have sufficient class rooms as per norms; according to his estimate, the deficit was 1,418 rooms; (ii) Did not have sufficient non-teaching staff as per norms; the deficit was 173 clerks, 892

peons, 34 deputy superintendents and 189 superintendents. He had estimated their salary bill to exceed Rs.1.0 crore. (iii) If all staff were appointed, the total salary bill of these schools would be about Rs.8.53 crore and, on the basis of 12 per cent of the salary bill, the schools would be entitled to a non-salary grant of about Rs.1.0 crore. In fact, because the Zilla Parishads did not incur the needed expenditure in advance, the schools got only a fraction of the eligible grant. It should be possible to remedy this by providing necessary ways and means of advances to Zilla Parishads. But probably, a more radical remedy is called for. We suggest that the Government should seriously consider taking over the management of these schools and placing it under an appropriately constituted Divisional Board.

9.7. An important circumstance affecting enrolment in secondary schools in different districts is the social composition of their population. As already pointed out, the proportion of the socially disadvantaged classes in the population is different in different districts. The progress of these groups in secondary schools is affected by differential rates of retention at various stages. In the following, we present the relevant data:

Retention percentages at different stages

<u>Stages</u>	<u>Non-Backward</u>	<u>Backward other than S.C., S.T & Neo Buddhists</u>	<u>Scheduled Caste</u>	<u>Neo-Buddhist</u>	<u>Scheduled Tribe</u>
V-VII/I-IV	46.25	37.66	36.63	36.20	22.22
VIII-X/V-VII	59.93	51.58	55.93	46.65	44.91
XI-XII/VIII-X	27.22	20.68	25.22	12.25	17.70

Pre-University/University Education:

9.8. The data for colleges and junior colleges is given in Table 9.5. In Thane, Raigad, Ratnagiri, Parbhani, Bhandara and Chandrapur, there is backlog in the number of students, number of colleges and teachers. But in Solapur, Aurangabad, Beed, Nanded, Osmanabad, Akola, Yavatmal and to a small extent in Wardha, there is backlog in the number of students but no backlog in the number of colleges. On the other hand, in Dhule, Jalgaon and Ahmednagar, there is no backlog in the number of students, but a backlog in the number of colleges. Here again, action appropriate to each situation will be needed.

Per Teacher Cost of Education:

9.9. As indicated above, in order to remove backlog in education at the several stages, action on several items, appropriate to each situation, will be necessary. In the absence of this detail, it is not possible to estimate the cost of removing of the backlog in each district. Nevertheless, we thought it will be useful to indicate approximate estimates of

Table 9.5

Colleges/Junior Colleges (1982-83)

District	Student Enrolment per lakh of population	Colleges per lakh of population	Teachers per lakh of population	Backlog* of Students	Backlog* of Colleges	Backlog* of Teachers
1	2	3	4	5	6	7
1. Greater Bombay	1,748.93	0.70	53.86	-	-	-
2. Thane	709.04	0.36	19.61	335	10	214
3. Raigad	269.30	0.27	11.97	6,689	6	261
4. Ratnagiri	305.78	0.43	14.35	7,812	5	320
<u>KONKAN</u>						
(excl. G.B.)	492.46	0.36	18.07	14,836	21	795
5. Nashik	901.58	0.64	30.62	-	-	-
6. Dhule	721.46	0.59	26.04	-	1	71
7. Jalgaon	958.23	0.57	32.77	-	2	-
8. Ahmednagar	867.96	0.59	30.57	-	2	-
9. Pune	1,109.70	0.62	38.85	-	-	-
10. Satara	915.05	0.78	38.41	-	-	-
11. Sangli	937.63	0.98	43.36	-	-	-
12. Solapur	728.50	0.65	29.27	1,044	-	6
13. Kolhapur	835.01	0.68	35.75	-	-	-
<u>WESTERN MAHARASHTRA</u>	910.56	0.66	33.78	1,044	5	77
14. Aurangabad	869.56	0.86	36.86	1,947	-	-
15. Parbhani	359.52	0.33	13.50	10,974	6	293
16. Beed	629.73	0.80	29.47	5,052	-	1
17. Nanded	671.68	0.63	29.90	4,548	-	-
18. Osmanabad	730.42	0.81	31.52	4,239	-	-
<u>MARATHWADA</u>	669.54	0.70	28.86	26,580	6	294
19. Buldhana	339.02	0.60	13.65	6,186	1	239
20. Akola	668.00	0.66	22.88	2,010	-	121
21. Amravati	900.50	1.18	42.06	-	-	-
22. Yavatmal	465.06	0.63	19.17	5,908	-	180
23. Wardha	813.17	0.76	25.36	371	-	38
24. Nagpur	1,526.38	0.97	54.08	-	-	-
25. Bhandara	438.89	0.49	13.77	4,594	3	289
26. Chandrapur	529.32	0.63	18.29	6,273	1	231
<u>VIDARBHA</u>	754.08	0.75	27.92	25,442	5	1,098
<u>MAHARASHTRA STATE</u>	901.26	0.66	32.58	67,902	37	2,264
(excl. G.B.)	773.14	0.65	29.36	67,902	37	2,264

* Backlog based on State Average (excluding Greater Bombay).

costs. This we propose to do on the basis of present per teacher cost in each category. We choose the teacher as the basis because we suppose that it is operationally the most meaningful.

9.10 With this in view, we give below the expenditure of the Education Department in 1982-83 under major heads:

<u>Head</u>	<u>Expenditure (Rs.)</u>
A - Primary	220,61,30,000
B - Secondary	170,83,04,000
C - Special	2,10,03,000
D - Pre-University	12,62,72,000
E - University	55,42,08,000
H - General	10,94,55,000
TOTAL	<hr style="border-top: 1px dashed black;"/> 472,53,72,000 <hr style="border-top: 1px dashed black;"/>

The expenditure on Primary and Secondary education consists of grants to primary and secondary schools respectively. Expenditure on Pre-university is grants for XI and XII standards conducted partly in secondary schools and partly in colleges. Expenditure on university education is on grants to colleges of Arts, Science, Commerce, and Education, and also salary grants to universities. We shall take these four heads into account. We shall neglect the other two heads of expenditure, namely, Special and General, the former being grants to specialised research institutions and the latter being mainly the establishment expenditure of the Department.

9.11. The number of teachers in Government and Government-aided primary schools in 1982-83 was 221,555. The expenditure on primary education amounting to Rs.220.613 crore, divided by the number of primary school teachers gives the per-teacher cost of primary education at Rs.9,957. We shall round this to Rs.10,000 per teacher per annum. We may note that this is not the cost of a primary teacher, but the cost of primary education per teacher.

9.12. The enrolment in secondary schools was 37,56,371. Of this, 1,67,986 was in private unaided schools. Hence, the enrolment in aided schools was 35,88,385. The grants to secondary schools amounted to Rs.170,83,04,000. Besides, the secondary schools got a part of the grants to pre-university, that is, XI - XII standards. As this grant was given to both the secondary schools and colleges having these classes, we shall divide the grant between schools and colleges in proportion to students enrolled in XI - XII standards in them. This is shown below:

Expenditure on Pre-University Stage

	<u>Enrolment</u>	<u>Grant Rs.</u>
Secondary Schools	142,246	4,10,84,000
Colleges	294,952	8,51,88,000
	-----	-----
TOTAL	437,198	12,62,72,000
	=====	=====

Thus, the grants to the secondary schools amount to Rs. (170,83,04,000 + 4,10,84,000) = 174,93,88,000. In 1982-83, there were in all 117,838 teachers in Government and Government-aided secondary schools. The expenditure on secondary education divided by the number of teachers gives the per teacher cost of secondary education of Rs.14,846 or, say, Rs.15,000 per annum. Again, we should note that this is not the cost of a secondary teacher, but the cost of secondary education per teacher.

9.13. The expenditure on pre-university and university education consists of Rs.55,42,08,000 charged to University education plus Rs.8,51,88,000 we have apportioned to colleges out of the grant for pre-university, that is XI - XII classes. This gives the total expenditure of Rs.63,93,96,000. The corresponding number of teachers is 22,413 comprising 20,454 in colleges of general education, 1,293 in D.Ed. and 666 in B.Ed. colleges. The expenditure divided by the number of teachers gives the per teacher cost of pre-university and university education of Rs.28,528 or, say, Rs.30,000 per annum.

9.14. To sum up, in order to work out the annual cost of removing the backlog in general education, we shall use the following costs: Rs.10,000 per teacher for primary education; Rs.15,000 per teacher for secondary education; and Rs.30,000 per teacher for pre-university and university education. We should note that these are not the costs of teachers but per teacher costs of primary, secondary, and college education, respectively, and that we are using these as the basis for estimating the cost of the backlog. Hence, the cost of the present backlog in primary, secondary, and college education is estimated on the basis of the backlog in the number of teachers multiplied by the per teacher cost of education. In the aggregate, it amounts to Rs.12.85 crore in primary education, Rs.10.37 crore in secondary education, and Rs.6.79 crore in college education (see Table 9.7).

Adult Education:

9.15. We have so far considered only the formal education. In a country with large percentage of illiteracy, formal education by itself is not enough because it cannot very much help in eradicating illiteracy among the adult population. For this purpose, a non-formal adult education programme is necessary. Such an Adult Education Programme was launched throughout the

Table 9.6

Adult Education Programme 1978-84

District	Illiterate Adult Population as on 30-9-1978		Population Completing Adult Literacy Course between 1978-79 and 1983-84		Col.(4) as Percentage of Col.(2)	Col.(5) as Percentage of Col.(3)
	Males	Females	Males	Females		
1	2	3	4	5	6	7
1. Greater Bombay	244,782	319,503	6,653	7,616	2.72	2.38
2. Thane	146,867	244,405	20,574	15,124	14.01	6.19
3. Raigad	65,624	149,993	17,818	13,507	27.15	9.01
4. Ratnagiri	62,929	199,376	12,368	42,014	19.65	21.07
KONKAN						
(excl. G.B.)	275,420	593,774	50,760	70,645	18.43	11.90
5. Nashik	140,862	289,330	15,682	6,410	11.13	2.22
6. Dhule	103,755	184,943	25,567	19,633	24.64	10.62
7. Jalgaon	78,384	192,440	36,871	23,090	47.04	12.00
8. Ahmednagar	127,192	287,198	22,749	18,369	17.89	6.40
9. Pune	127,883	319,103	38,977	45,744	30.48	14.34
10. Satara	65,204	202,227	8,741	22,468	13.41	11.11
11. Sangli	75,966	186,298	14,712	7,618	19.37	4.09
12. Solapur	140,139	279,386	39,384	24,100	28.10	8.63
13. Kolhapur	105,718	267,194	35,596	37,079	33.67	13.88
WESTERN MAHARASHTRA	965,103	2208,119	238,279	204,511	24.69	9.26
14. Aurangabad	138,475	285,565	30,752	17,614	22.21	6.17
15. Parbhani	122,081	226,743	33,825	13,489	27.71	5.95
16. Beed	88,084	164,593	47,485	22,303	53.91	13.55
17. Nanded	99,680	180,258	50,923	13,902	51.09	7.71
18. Osmanabad	143,952	276,545	25,180	12,261	17.49	4.43
MARATHWADA	592,272	1133,704	188,165	79,569	31.77	7.02
19. Buldhana	56,638	146,938	28,843	26,029	50.93	17.71
20. Akola	74,347	166,518	25,550	27,909	34.37	16.76
21. Amravati	68,687	145,201	27,628	23,402	40.22	16.11
22. Yavatmal	88,340	186,475	26,780	16,963	30.31	9.10
23. Wardha	25,452	75,143	31,901	31,619	125.34(?)	42.08
24. Nagpur	76,327	185,499	8,275	7,756	10.84	4.18
25. Bhandara	68,868	203,414	19,238	16,743	27.93	8.23
26. Chandrapur	122,119	248,891	56,419	37,962	46.20	15.25
VIDARBHA	580,778	1358,079	224,634	188,383	38.68	13.87
MAHARASHTRA STATE	2658,355	5613,179	708,491	550,724	26.65	9.81
(excl. G.B.)	2413,573	5293,676	701,838	543,108	29.08	10.26

(?) Needs Checking.

Table 9.6A

Backlog in Adult Education Programme

District	Total Illiterate Adult Population as on 31.3.1983	Total Number of Centres	Total Enrolment in 1983-84	Centres per Thousand of Illiterate Adult Population	Enrolment as percentage of Illiterates as on 31.3.1983	Backlog of Centres
1	2	3	4	5	6	7
1. Greater Bombay	550,996	30	900	0.05	0.16	-
2. Thane	365,474	330	9,900	0.90	2.71	236
3. Raigad	199,592	510	15,300	2.56	7.67	-
4. Ratnagiri	225,923	600	18,000	2.66	7.97	-
<u>KONKAN</u> (excl. G.B.)	<u>790,989</u>	<u>1,440</u>	<u>43,200</u>	<u>1.82</u>	<u>5.46</u>	<u>236</u>
5. Nashik	414,400	210	6,300	0.51	1.52	432
6. Dhule	259,998	550	16,500	2.12	6.35	-
7. Jalgaon	222,563	390	11,700	1.75	5.26	-
8. Ahmednagar	384,072	360	10,800	0.94	2.81	235
9. Pune	381,165	630	18,900	1.65	4.96	-
10. Satara	250,622	480	14,400	1.92	5.75	-
11. Sangli	245,334	180	5,400	0.73	2.20	200
12. Solapur	365,941	330	9,900	0.90	2.70	237
13. Kolhapur	315,537	510	15,300	1.62	4.85	-
<u>WESTERN MAHARASHTRA</u>	<u>2839,632</u>	<u>3,640</u>	<u>109,200</u>	<u>1.28</u>	<u>3.85</u>	<u>1,104</u>
14. Aurangabad	393,674	600	18,000	1.52	4.57	10
15. Parbhani	311,410	330	9,900	1.06	3.18	153
16. Beed	198,189	510	15,300	2.57	7.72	-
17. Nanded	228,913	460	13,800	2.01	6.03	-
18. Osmanabad	401,956	630	18,900	1.57	4.70	-
<u>MARATHWADA</u>	<u>1534,142</u>	<u>2,530</u>	<u>75,900</u>	<u>1.65</u>	<u>5.49</u>	<u>163</u>
19. Buldhana	162,204	450	13,500	2.77	8.32	-
20. Akola	199,106	390	11,700	1.96	5.88	-
21. Amravati	172,758	330	9,900	1.91	5.73	-
22. Yavatmal	236,472	180	5,400	0.76	2.28	187
23. Wardha	47,875	360	10,800	7.52	22.56	-
24. Nagpur	247,595	60	1,800	0.24	0.73	324
25. Bhandara	248,001	390	11,700	1.57	4.72	-
26. Chandrapur	298,229	720	21,600	2.41	7.24	-
<u>VIDARBHA</u>	<u>1612,240</u>	<u>2,880</u>	<u>86,400</u>	<u>1.79</u>	<u>5.36</u>	<u>511</u>
<u>MAHARASHTRA STATE</u>	<u>7327,919</u>	<u>10,520</u>	<u>315,600</u>	<u>1.44</u>	<u>4.31</u>	<u>-</u>
<u>MAHARASHTRA STATE</u> (excl. G.B.)	<u>6777,003</u>	<u>10,490</u>	<u>314,700</u>	<u>1.55</u>	<u>4.64</u>	<u>2,014</u>

Table 9.7

Cost of Backlog in Education

(Rs. Lakh)

District	Primary School Teachers @ Rs. 10,000 per Teacher	Secondary School Teachers @ Rs. 15,000 per Teacher	College Teachers @ Rs. 30,000 per Teacher	Adult Education Centres @ Rs. 2,500 per Centre	Total Cost
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	240.50	85.80	64.20	5.90	396.40
3. Raigad	-	21.00	78.30	-	99.30
4. Ratnagiri	-	-	96.00	-	96.00
KONKAN					
<u>(excl. G.B.)</u>	<u>240.50</u>	<u>106.80</u>	<u>238.50</u>	<u>5.90</u>	<u>591.70</u>
5. Nashik	-	-	-	10.80	10.80
6. Dhule	42.30	18.45	21.30	-	82.05
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	5.88	5.88
9. Pune	21.20	-	-	-	21.20
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	5.00	5.00
12. Solapur	-	111.45	1.80	5.93	119.18
13. Kolhapur	-	36.60	-	-	36.60
WESTERN MAHARASHTRA	<u>63.50</u>	<u>166.50</u>	<u>23.10</u>	<u>27.61</u>	<u>280.71</u>
14. Aurangabad	93.20	109.95	-	0.25	203.40
15. Parbhani	248.40	161.10	87.90	3.83	501.23
16. Beed	125.00	75.00	0.30	-	200.30
17. Nanded	138.20	80.40	-	-	218.60
18. Osmanabad	15.00	-	-	-	15.00
MARATHWADA	<u>619.80</u>	<u>426.45</u>	<u>88.20</u>	<u>4.08</u>	<u>1,138.53</u>
19. Buldhana	28.20	37.05	71.70	-	136.95
20. Akola	12.30	-	36.30	-	48.60
21. Amravati	-	-	-	-	-
22. Yavatmal	13.00	99.75	54.00	4.68	171.43
23. Wardha	-	-	11.40	-	11.40
24. Nagpur	136.70	-	-	8.10	144.80
25. Bhandara	81.90	44.10	86.70	-	212.70
26. Chandrapur	89.40	156.00	69.30	-	314.70
VIDARBHA	<u>361.50</u>	<u>336.90</u>	<u>329.40</u>	<u>12.78</u>	<u>1,040.58</u>
MAHARASHTRA STATE					
<u>(excl. G.B.)</u>	<u>1,285.30</u>	<u>1,036.65</u>	<u>679.20</u>	<u>50.37</u>	<u>3,051.52</u>

country beginning on October 2, 1978. Its main objective is to help acquisition of literacy, numeracy, and functional skills among the illiterate adults, mainly in the age group 15 - 35 and develop in them a sense of social awareness. The programme forms part of the Minimum Needs Programme, Tribal Sub-Plans, Special Component Plans for Scheduled Castes and Nav-Bauddhas and schemes for the benefit of other weaker sections of the community. It is included in the Revised 20-Point Programme. It is relevant to us because, as we have noted (para 4.41 etc.), there are large disparities in the percentage of literacy in different districts and that it is particularly low in Marathwada.

9.16. According to the Fourth Educational Survey conducted in the State, the total illiterate population in the age group 15 - 35 was 82,71,534 comprising 26,58,355 males and 56,13,179 females (Table 9.6). During the six years from 1978-79 to 1983-84 12,59,215 (7,08,491 males and 5,50,724 females) were covered by the Adult Education Programme. Thus, in a period of six years, 15.22 per cent (26.65 per cent males and only 9.81 per cent females) of the identified illiterate adults were covered by the programme. We shall now examine the districtwise position.

9.17. In Table 9.6A we give the relevant data. In Col.2 we give the number of adult illiterates as on 1-4-1983. It is in relation to this number that we shall assess the programme during 1983-84. Col.3 shows the number of adult education centres and Col.4 the enrolment during 1983-84. In Col.5 we show the number of centres per 1,000 adult illiterates and in Col.6, the enrolment during the year as percentage of the number of adult illiterates at the beginning of the year.

9.18. It will be noticed that in the State as a whole (excluding Greater Bombay), there are 1.55 centres per 1,000 of illiterate adult population and that, as on 31-3-1983, 4.64 per cent of the illiterate adult population was enrolled at these centres. There are considerable differences between the districts in both respects. We suggest that the backlog in this programme should be assessed on the basis of adult education centres per 1,000 of illiterate adult population. This is shown in Col.7 of the Table. The estimated cost of adult education per centre per annum is Rs.2,500. On the basis, the aggregate cost of backlog in adult education amounts to Rs.50.37 lakh. It is shown in Col.5 of Table 9.7.

9.19. In Table 9.7, we bring together the districtwise estimated cost of backlog in primary (Col.2), secondary (Col.3), college (Col.4), and adult (Col.5) education. In Col.6 is given the total cost of backlog in education. In the aggregate, it amounts to Rs.30.52 crore per annum. Of this, Marathwada accounts for Rs.11.39 crore, Vidarbha for Rs.10.41 crore, Konkan for Rs.5.92 crore and Western Maharashtra for only Rs.2.81 crore. This includes only the recurring costs and does not include capital costs on school buildings, equipment, etc.

CHAPTER X.

TECHNICAL EDUCATION

10.1. Before Independence, Technical Education in the State was under the control of Director of Education. A separate Directorate of Technical Education was created in 1948 and was entrusted with Technical Education and Training in the State. Subsequently, in 1956, Government of India transferred the control of Industrial Training Institutes in the State to the State Government and they came under the administrative control of this Directorate. Affiliation, curriculum, conduct of final trade test, and award of certificates continued to remain within the purview of the Directorate General of Employment and Training, Government of India. Further, with the enactment of the Apprentices Act in 1963, its implementation in the State was also entrusted to this department. In 1971, with the introduction of the 10+2+3 pattern of education, the vocational education at +2 stage was placed under the control of this Department. In 1981-82 the Department was bifurcated into two separate departments, namely, Directorate of Technical Education and Directorate of Technical Training. The Directorate of Technical Education controls technical education at the levels of Diploma, Degree and Post-graduation. The Directorate of Technical Training administers the following schemes of Technical Training: (i) Craftsman Training (Industrial Training Institutes); (ii) Apprenticeship Training; (iii) Technical High Schools/Industrial Schools; (iv) Vocationalisation of Higher Secondary Education at +2 level; (v) Other certificate courses under the Board of Technical Examinations; (vi) Special need-based courses such as for Civil Engineering Assistants; (vii) Part-time classes for Industrial Workers; (viii) Advanced Vocational Training System; (ix) Any other courses at SSC and Pre-SSC Certificate level. Among these, the schemes of (i) Industrial Training Institutes (ITI), (ii) Technical High Schools at S.S.C. and +2 stage and (iii) Vocationalisation at +2 stage are the more important in the present context. Hence, we shall confine attention to these three schemes and examine regional disparities if any in relation to them.

Industrial Training Institutes (ITI):

10.2. The Director General of Employment and Training (DGE&T), Government of India, is in-charge of the scheme at the national level. The examinations are held on an all-India basis by the National Council of Vocational Training (N.C.V.T.) and certificates are awarded to successful candidates. Starting of a new ITI requires the permission of the DGE&T. Initially, certain principles were laid down for starting of new ITI's. They were (i) whether there is demand from existing and prospective industries in the area; (ii) whether there is sufficient supply of students for the training; and (iii) there should be at least

one ITI in each district. Accordingly, a number of ITI's were started with a minimum of one ITI in each district. In the beginning, the response was not so encouraging. However, since 1975, a large number of students have been seeking admission, presently the number of applications being more than 20 times the available seats. The admissions are made on merit basis in various trade courses for which different educational qualifications are prescribed. For some courses, the minimum qualification is two standards below S.S.C. while for some courses it is S.S.C. pass. Training is free to all the trainees. At present there are 59 Government ITI's and 35 Non-Government ITI's in the State with a provision of training in 44 trades, two-year courses in 25 trades and one-year courses in 19 trades. Courses in 38 trades are as prescribed by DGE&T and examinations are conducted by N.C.V.T. The remaining 6 courses are prescribed by the State C.V.T. and examinations are conducted by the S.C.V.T. In an Annexure is given a list of these courses.

10.3. Since the establishment of the DPDC's in 1974-75, the ITI is considered a district-level scheme. In our meetings with the DPDC's, the demand for additional ITI's, such as one for each taluka, was one of the most pressing demands made. The present policy seems to be that, if a DPDC allocates necessary funds, a new ITI may be started. By their size, the ITIs are classified into three classes: Class I: with more than 600 trainees; Class II: with 200-600 trainees; and Class III: with fewer than 200 trainees. At present the capital cost of building and equipment is about Rs.2 crore, Rs.1.5 crore, and Rs.1 crore for the three classes of ITIs respectively. The Department suggests that the DPDC may provide the needed funds over a period of say five years. But in many cases, the DPDC's have provided funds only in the first year, and the respective ITIs have remained under-equipped as judged by the norms of the DGE&T, Government of India. In consequence, the DGE&T has refused to grant them permanent affiliation. Of the 59 Government ITIs presently existing in the State, 15 are in this category. Besides, the equipment of more than 20 ITIs which were started in 1960 requires immediate replacement. Thus, while the importance of ITI is recognised, the DPDCs have not been able to provide necessary funds.

10.4. In Table 10.1, we give for each district, the number of Government and non-Government ITIs and their total sanctioned strength of trainees. As per the present policy of the Government of India, no grants-in-aid are given to the non-Governmental ITIs. On the general principle we have adopted, namely, that in considering the disparities between districts we shall consider only the services provided by the Government, we shall take into account only the Government ITIs. In Col.6 their sanctioned strength of trainees is expressed per lakh of 1981 population. It will be noticed that in the State, excluding Greater Bombay, this ratio is 49.17, that is sanctioned strength of 49.17 technical trainees per lakh of population. The facilities in this respect are above the State average(49.17) in

Table 10.1

Industrial Training Institutes

as on March 31, 1983.

District	Number of ITIs		Sanctioned Strength		Sanctioned Strength per lakh of 1981 Population in Government ITIs.	Backlog of Students
	Government	Non-Government	Government	Non-Government		
1	2	3	4	5	6	7
1. Greater Bombay	3	10	1,608	1,212	19.51	1,645
2. Thane	4	3	1,648	272	49.17	-
3. Raigad	2	1	892	60	60.00	-
4. Ratnagiri	3	-	1,000	-	47.36	-
<u>KONKAN</u>						
(excl. G.B.)	9	4	3,540	332	50.94	-
5. Nashik	2	2	1,500	156	50.14	-
6. Dhule	2	-	1,316	-	64.18	-
7. Jalgaon	2	1	1,016	32	38.80	271
8. Ahmednagar	2	2	864	144	31.90	468
9. Pune	7	6	2,456	656	58.97	-
10. Satara	2	-	1,936	-	94.96	-
11. Sangli	1	2	944	136	51.55	-
12. Solapur	1	-	736	-	28.19	547
13. Kolhapur	1	2	1,500	96	59.85	-
<u>WESTERN MAHARASHTRA</u>	<u>20</u>	<u>15</u>	<u>12,268</u>	<u>888</u>	<u>52.16</u>	<u>1,286</u>
14. Aurangabad	2	1	1,088	56	44.71	109
15. Parbhani	1	-	472	-	25.80	427
16. Beed	2	-	600	-	40.37	131
17. Nanded	2	1	796	16	45.50	64
18. Osmanabad	4	1	1,108	32	49.67	-
<u>MARATHWADA</u>	<u>11</u>	<u>3</u>	<u>4,064</u>	<u>104</u>	<u>41.77</u>	<u>731</u>
19. Buldhana	2	-	676	-	44.80	66
20. Akola	2	-	804	-	43.19	11
21. Amravati	2	-	1,172	-	62.96	-
22. Yavatmal	2	-	564	-	32.46	290
23. Wardha	2	-	596	-	64.32	-
24. Nagpur	2	3	1,532	248	59.18	-
25. Bhandara	2	-	820	-	44.62	84
26. Chandrapur	2	-	784	-	38.14	236
<u>VIDARBHA</u>	<u>16</u>	<u>3</u>	<u>6,948</u>	<u>248</u>	<u>48.44</u>	<u>777</u>
<u>MAHARASHTRA STATE</u>	<u>59</u>	<u>35</u>	<u>28,428</u>	<u>3,116</u>	<u>45.28</u>	<u>4,439</u>
<u>(excl. G.B.)</u>	<u>56</u>	<u>25</u>	<u>26,820</u>	<u>1,904</u>	<u>49.17</u>	<u>2,794</u>

Western Maharashtra (52.16), Konkan (50.94) and Vidarbha (48.44) Regions. They are below the State average in Marathwada (41.77) Region. The disparities between districts are of course larger, the ratios ranging from 94.96 in Satara to 25.80 in Parbhani.

10.5. Though we have generally kept Greater Bombay out of our consideration, in the matter of technical training facilities, we should make an exception. The technical training facilities per lakh of population in Bombay are the lowest, indeed only 19.51 sanctioned strength of trainees per lakh of population. Hence, in the following, we shall examine the backlog of Greater Bombay as well.

10.6. The backlog of the several districts may be judged in terms of additional strength of trainees in the ITIs needed to bring the lagging districts on par with the State average of 49.17 trainees per lakh of population. This is given in Col.7 of Table 10.1. It will be seen that facilities for an additional 1,645 trainees in Bombay and 2,794 trainees in the rest of the State need to be created. This may be done either by expansion of the facilities in the present ITIs or preferably by opening new ITIs. It has been represented to us that in many ITIs, the trade-courses provided are not the right ones. We could not examine this question, institute by institute. The Technical Advisory Committees set up in each district could suggest the appropriate trades to be introduced in the respective ITIs.

10.7. Estimates of cost of removing the backlog are shown in Table 10.1A. We have estimated the capital cost of building and equipment at Rs.50,000 per student (on the basis of Rs.1 crore for an ITI with student strength upto 200). This amounts to Rs.8.23 crore for Bombay and Rs.13.97 crore for the rest of Maharashtra (Col.2). The present recurring cost of the ITIs works out at about Rs.3,016 per trainee. Hence, we have estimated the additional recurring cost at the rate of Rs.3,000 per trainee. This amounts to Rs.49.35 lakh for Bombay and Rs.83.82 lakh for the rest of Maharashtra (Col.3).

10.8. We have already drawn attention to the fact of serious deficiencies in the existing institutions. Though, one may not consider these as part of the backlog, it is obvious that these will have to be remedied in due course. Hence, to indicate their size, we have given their cost estimates in Cols.4 and 5 respectively. It will be seen that these amount to Rs.7.92 crore for equipment and Rs.48.36 crore for institutional buildings, hostels and staff quarters. The two together amount to Rs. 56.27 crore which works to about Rs.20,000 per existing trainee. This may be compared with the capital cost of Rs.50,000 per additional trainee. It shows how inadequately the present ITIs are provided.

10.9. Though this is undoubtedly a serious matter, we could not consider the deficiencies in the existing institutions as part of the backlog. But we would make an exception. As we have already noted, 15 out of the present 59 ITIs are refused permanent

Table 10.1A

Government Industrial Training Institutes:
Cost of Backlog

(Rs. Lakh)

District	Backlog		Deficiencies			
	Capital Cost	Recurring Cost	All ITIs Equip- ment	Temporarily Build- ings	Affiliated ITIs Equipment	Land and Buildings
1	2	3	4	5	6	7
1.Greater Bombay	822.50	49.35	32.00	165.00	-	-
2.Thane	-	-	44.00	389.00	2.00	84.00
3.Raigad	-	-	27.00	155.00	-	-
4.Ratnagiri	-	-	19.00	247.35	-	-
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	-	-	90.00	791.35	2.00	84.00
5.Nashik	-	-	24.85	218.00	1.50	83.00
6.Dhule	-	-	25.80	193.50	5.80	101.00
7.Jalgaon	135.50	8.13	22.50	106.50	2.00	78.00
8.Ahmednagar	234.00	14.04	36.30	179.50	-	-
9.Pune	-	-	78.95	590.50	7.45	364.50
10.Satara	-	-	88.50	130.00	-	-
11.Sangli	-	-	42.50	84.50	-	-
12.Solapur	273.50	16.41	22.80	109.00	-	-
13.Kolhapur	-	-	37.60	101.35	-	-
<u>WESTERN MAHARASHTRA</u>	<u>643.00</u>	<u>38.58</u>	<u>379.80</u>	<u>1,712.85</u>	<u>16.75</u>	<u>626.50</u>
14.Aurangabad	54.50	3.27	35.50	207.00	-	-
15.Parbhani	213.50	12.81	18.93	83.00	-	-
16.Beed	65.50	3.93	15.90	80.00	-	-
17.Nanded	32.00	1.92	5.62	145.50	2.15	83.00
18.Osmanabad	-	-	30.72	317.00	5.22	249.00
<u>MARATHWADA</u>	<u>365.50</u>	<u>21.93</u>	<u>106.67</u>	<u>832.50</u>	<u>7.37</u>	<u>332.00</u>
19.Buldhana	33.00	1.98	23.48	156.50	-	-
20.Akola	55.50	3.33	17.57	160.50	0.95	83.00
21.Amravati	-	-	26.53	147.00	0.50	79.00
22.Yavatmal	145.00	8.70	24.94	173.50	-	-
23.Wardha	-	-	14.78	153.50	-	-
24.Nagpur	-	-	45.30	201.00	0.50	80.00
25.Bhandara	42.00	2.52	14.02	131.50	-	-
26.Chandrapur	113.00	6.78	16.48	210.50	-	-
<u>VIDARBHA</u>	<u>388.50</u>	<u>23.31</u>	<u>183.10</u>	<u>1,334.00</u>	<u>1.95</u>	<u>242.00</u>
<u>MAHARASHTRA STATE</u>	<u>2,219.50</u>	<u>133.17</u>	<u>791.57</u>	<u>4,835.70</u>	<u>28.07</u>	<u>1,284.50</u>
<u>(excl. G.B.)</u>	<u>1,397.00</u>	<u>83.82</u>	<u>759.57</u>	<u>4,670.70</u>	<u>28.07</u>	<u>1,284.50</u>

Capital Cost @ Rs.50,000 per Student.
Recurring Cost @ Rs.3,000 per Student.

affiliation by the DGE&T mainly because of these deficiencies. For this reason, we would treat their deficiencies as part of the backlog. The details are shown in Cols.6 and 7 of the Table 10.1A. It will be seen that the backlog on this account adds up to Rs.13.13 crore.

Technical High Schools/Centres:

10.10. Following the recommendations of the Radhakrishnan Commission of Education (1950), the Technical High School Scheme was first introduced in the then Bombay State in 1955. Accordingly, the subjects of Workshop Technology and Engineering Drawing, and Elements of Electrical and Mechanical Engineering were introduced from VIII Standard as additional core subjects at the S.S.C. level. Along with the fullfledged technical high schools, training facilities were provided at a number of centres. Students received instruction in technical subjects at these centres and in general subjects in their respective schools. Initially, it was decided that each district should have one technical high school/centre. There were no specific rules for this purpose. There was also no great demand. When, subsequently, the pre-S.S.C. technical training was given weightage for admissions to ITIs and polytechnics, a large number of students began to seek admissions to these courses. However, instead of starting additional technical schools, Government decided to allow non-Government schools to have technical training facilities, preferably in their own schools, for which a special grant-in-aid was provided. In districts where private schools were not forthcoming, Government started additional technical schools.

10.11. In the meanwhile, the initial scheme underwent many changes. While it began with technical education in VIII, IX, X, and XI Standards, it is now given in VIII, IX and X Standards at the Secondary level and XI and XII Standards at the Higher Secondary levels. The two subjects, now called Engineering Sciences/Workshop Technology and Engineering Drawing, are no longer considered core subjects. Under the 10+2+3 pattern, the subjects are continued by the same names in XI and XII Standards as H.S.C. (Tech.). The students seek admissions to these courses mainly because they are given weightage for admission to higher technical education. Students who do not get admissions to higher level courses, regard the training as more or less wasted, though, of course, the training they have received in engineering drawing and workshop technology should be of some use.

10.12. In Table 10.2, we give the Technical High Schools/Centres - Government, private receiving Grant-in-Aid (GIA) and private with no grant-in-Aid (NGIA). Their number is given in Cols.2 - 4 and their student intake in Cols. 5 - 7. It will be noticed that in the State, the total student intake in these schools/centres is 61,050 of which 29,200 is in Government schools, 14,200 in GIA schools, and 17,650 in NGIA schools. For judging district disparities, we shall exclude the NGIA schools. In Table 10.2A, we show the student intake in Government and GIA

Table 10.2

Technical High Schools/Centres

as on March 31, 1983.

District	Govern- ment	Number		Student Intake		
		G I A	N G I A	Govern- ment	G I A	N G I A
1	2	3	4	5	6	7
1. Greater Bombay	4	17	1	2,720	5,340	410
2. Thane	3	4	8	1,750	1,400	1,100
3. Raigad	2	-	2	660	-	200
4. Ratnagiri	2	-	2	1,320	-	200
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	<u>7</u>	<u>4</u>	<u>12</u>	<u>3,730</u>	<u>1,400</u>	<u>1,500</u>
5. Nashik	2	-	7	1,560	-	900
6. Dhule	3	-	7	2,670	-	1,000
7. Jalgaon	4	2	8	3,060	1,400	1,300
8. Ahmednagar	1	2	2	960	650	850
9. Pune	1	6	16	1,380	2,400	3,100
10. Satara	2	1	7	1,680	250	800
11. Sangli	-	9	4	-	2,900	1,600
12. Solapur	1	5	16	840	1,900	2,150
13. Kolhapur	1	9	8	1,260	2,550	1,400
<u>WESTERN MAHARASHTRA</u>	<u>15</u>	<u>34</u>	<u>75</u>	<u>13,410</u>	<u>12,050</u>	<u>13,100</u>
14. Aurangabad	3	1	4	1,080	150	300
15. Parbhani	4	-	-	1,020	-	-
16. Beed	4	-	-	1,320	-	-
17. Nanded	4	-	-	840	-	-
18. Osmanabad	3	1	8	1,260	150	800
<u>MARATHWADA</u>	<u>18</u>	<u>2</u>	<u>12</u>	<u>5,520</u>	<u>300</u>	<u>1,100</u>
19. Buldhana	1	-	1	660	-	700
20. Akola	2	-	2	600	-	200
21. Amravati	1	-	3	300	-	350
22. Yavatmal	2	-	3	660	-	350
23. Wardha	3	1	1	960	200	300
24. Nagpur	3	1	1	1,320	250	50
25. Bhandara	2	-	-	1,140	-	-
26. Chandrapur	2	-	-	900	-	-
<u>VIDARBHA</u>	<u>16</u>	<u>2</u>	<u>11</u>	<u>6,540</u>	<u>450</u>	<u>1,950</u>
<u>MAHARASHTRA STATE</u>	<u>60</u>	<u>59</u>	<u>111</u>	<u>31,920</u>	<u>19,540</u>	<u>18,060</u>
<u>MAHARASHTRA STATE</u>						
<u>(excl. G.B.)</u>	<u>56</u>	<u>42</u>	<u>110</u>	<u>29,200</u>	<u>14,200</u>	<u>17,650</u>

GIA : Institutions receiving Grant-in-Aid.
 NGIA : Private Institutions receiving no Grant-in-Aid.

Table 10.2A

Government and Government-Aided Technical High Schools/Centres
as on March 31, 1983.

District	Student Intake in Govt. and GIA Schools	Student Intake as per lakh of 1981 Population	Backlog of Student Intake*	Cost to cover Backlog		Deficiencies	
				Capital Cost @ Rs.10,000 per student (Rs. Lakh)	Recurring Cost @ Rs.400 per student	Capital Cost	Recurring Cost
1	2	3	4	5	6	7	8
1. Greater Bombay	8,060	97.78	-	-	-	44.55	0.42
2. Thane	3,150	93.99	-	-	-	44.71	1.63
3. Raigad	660	44.40	523	52.30	2.09	21.22	0.47
4. Ratnagiri	1,320	62.52	360	36.00	1.44	11.22	0.49
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>5,130</u>	<u>73.82</u>	<u>883</u>	<u>88.30</u>	<u>3.53</u>	<u>77.15</u>	<u>2.59</u>
5. Nashik	1,560	52.14	821	82.10	3.28	7.21	0.51
6. Dhule	2,670	130.22	-	-	-	53.70	0.96
7. Jalgaon	4,460	170.34	-	-	-	78.84	0.99
8. Ahmednagar	1,610	59.45	545	54.50	2.18	9.31	0.16
9. Pune	3,780	90.77	-	-	-	6.73	0.32
10. Satara	1,930	94.67	-	-	-	3.88	0.33
11. Sangli	2,900	158.37	-	-	-	-	-
12. Solapur	2,740	104.98	-	-	-	7.92	0.11
13. Kolhapur	3,810	152.02	-	-	-	14.96	0.13
<u>WESTERN MAHARASHTRA</u>	<u>25,460</u>	<u>108.25</u>	<u>1,366</u>	<u>136.60</u>	<u>5.46</u>	<u>182.55</u>	<u>3.51</u>
14. Aurangabad	1,230	50.55	706	70.60	2.82	45.91	0.74
15. Parbhani	1,020	55.76	436	43.60	1.74	84.82	1.31
16. Beed	1,320	88.83	-	-	-	89.29	1.01
17. Nanded	840	48.02	552	55.20	2.21	74.76	0.69
18. Osmanabad	1,410	63.21	365	36.50	1.46	47.56	1.29
<u>MARATHWADA</u>	<u>5,820</u>	<u>59.82</u>	<u>2,059</u>	<u>205.90</u>	<u>8.23</u>	<u>342.34</u>	<u>5.04</u>
19. Buldhana	660	43.74	541	54.10	2.16	10.00	0.41
20. Akola	600	32.84	854	85.40	3.42	5.86	0.04
21. Amravati	300	16.12	1,181	118.10	4.72	13.87	0.12
22. Yavatmal	660	37.99	722	72.20	2.89	35.90	0.57
23. Wardha	1,160	125.19	-	-	-	38.64	1.04
24. Nagpur	1,570	60.65	490	49.00	1.96	28.06	0.48
25. Bhandara	1,140	62.04	322	32.20	1.29	19.36	0.57
26. Chandrapur	900	43.78	736	73.60	2.94	18.02	0.61
<u>VIDARBHA</u>	<u>6,990</u>	<u>48.73</u>	<u>4,846</u>	<u>484.60</u>	<u>19.38</u>	<u>169.71</u>	<u>3.84</u>
<u>MAHARASHTRA STATE</u>	<u>51,460</u>	<u>81.96</u>	<u>9,154</u>	<u>915.40</u>	<u>36.60</u>	<u>817.04</u>	<u>15.40</u>
<u>(excl. G.B.)</u>	<u>43,400</u>	<u>79.57</u>	<u>9,154</u>	<u>915.40</u>	<u>36.60</u>	<u>771.75</u>	<u>14.98</u>

* Based on State Average (excluding Greater Bombay).

schools (Col.2). Col.3 gives the student intake per lakh of population. It will be noticed that in the State, excluding Greater Bombay, the average comes to 79.57 students per lakh of population.

10.13. As in the case of ITIs, the backlog here may be judged in terms of additional sanctioned strength of students needed in the Government/GIA Technical High Schools/Centres in different districts to bring the lagging districts on par with the State Average of 79.57 students per lakh of population. This is given in Table 10.2A (Col.4). It will be noticed that provision of additional 9,154 students is needed. The additional recurring cost is estimated at the rate of Rs.400 per student per annum which is approximately the same as the present average cost (Rs.406). The capital cost works out to Rs.10,000 per student at an optimum strength of 450 students per centre. The capital and recurring costs of the backlog of students works out to Rs.915.40 lakh and Rs.36.60 lakh respectively. In clearing this backlog, the priority should obviously be to convert the NGIA institutions to GIA institutions.

10.14. Besides, as in the case of ITIs, there are serious deficiencies in the equipment and buildings of the Government Technical High Schools/Centres, which will have to be made up in due course. Its capital cost is shown in Col.7. It amount to Rs.7.72 crore. There are also staff deficiencies in these institutions. The recurring cost of making these up is shown in Col.8. It amounts to Rs.14.98 lakh.

Technical Training in Higher Secondary Schools:

10.15. There is one more system of receiving technical education at higher secondary level in standards XI and XII. In this system, a student offers one of four technical subjects prescribed by the Board of Higher Secondary Education along with other five academic subjects. Students learn only basic skills during 8 periods of time table per week. They are given weightage of 5 per cent of marks for admission to engineering colleges and also to the second year of the three year diploma course in the respective branch. Facilities are available in Government Technical High Schools/Centres. Some private schools also offer the facilities for which they receive grant-in-aid. There are two private schools, one in Pune and one in Satara district, which provide the facilities but receive no grant-in-aid. In Table 10.3 are given the relevant data pertaining to the Government and GIA institutions. It will be seen that the average number of students per lakh of population works to 20.43 (Col.6) in the State excluding Greater Bombay. The backlog amounts to 2,811 in terms of additional students to be provided.

10.16. Normally, no capital provision is necessary. Private schools providing the facilities receive only recurring grants as per rule. The cost per student is about the same as in the case of pre-SSC technical education, namely Rs.400 per annum. On this basis the cost of the backlog is shown in Col.8. It amounts to

Table 10.3

Government and Government-Aided Higher Secondary Schools
as on March 31, 1983.

District	Number of Schools		Sanctioned Strength		Sanct- ioned strength per lakh of 1981 Popula- tion	Backlog* of Students	Recurring Cost @ Rs.400 per Student (Rs. Lakh)
	Govern- ment	G I A	Govern- ment	G I A			
1	2	3	4	5	6	7	8
1. Greater Bombay	4	7	560	840	16.98	-	-
2. Thane	2	2	220	200	12.53	265	1.06
3. Raigad	1	-	120	-	8.07	184	0.74
4. Ratnagiri	2	-	240	-	11.37	191	0.76
<u>KONKAN</u>							
(excl. G.B.)	<u>5</u>	<u>2</u>	<u>580</u>	<u>200</u>	<u>11.22</u>	<u>640</u>	<u>2.56</u>
5. Nashik	2	-	480	-	16.04	131	0.52
6. Dhule	1	-	240	-	11.71	179	0.72
7. Jalgaon	4	2	720	500	46.60	-	-
8. Ahmednagar	1	2	240	200	16.25	113	0.45
9. Pune	1	6	480	700	28.33	-	-
10. Satara	2	1	600	100	34.34	-	-
11. Sangli	-	9	-	1,000	54.61	-	-
12. Solapur	1	5	120	700	31.42	-	-
13. Kolhapur	1	3	360	500	34.31	-	-
<u>WESTERN MAHARASHTRA</u>	<u>13</u>	<u>28</u>	<u>3,240</u>	<u>3,700</u>	<u>29.51</u>	<u>423</u>	<u>1.69</u>
14. Aurangabad	3	-	480	-	19.73	17	0.07
15. Parbhani	1	-	120	-	6.56	254	1.02
16. Beed	2	-	240	-	16.15	64	0.26
17. Nanded	1	-	240	-	13.72	117	0.45
18. Osmanabad	2	-	360	-	16.14	96	0.38
<u>MARATHWADA</u>	<u>9</u>	<u>-</u>	<u>1,440</u>	<u>-</u>	<u>14.80</u>	<u>548</u>	<u>2.18</u>
19. Buldhana	1	-	120	-	7.95	188	0.75
20. Akola	2	-	240	-	13.14	133	0.53
21. Amravati	1	-	120	-	6.45	260	1.04
22. Yavatmal	1	-	120	-	6.91	235	0.94
23. Wardha	1	1	240	200	47.48	-	-
24. Nagpur	2	1	240	100	13.13	189	0.76
25. Bhandara	2	-	240	-	13.06	135	0.54
26. Chandrapur	2	-	360	-	17.51	60	0.24
<u>VIDARBHA</u>	<u>12</u>	<u>2</u>	<u>1,680</u>	<u>300</u>	<u>13.80</u>	<u>1,200</u>	<u>4.80</u>
<u>MAHARASHTRA STATE</u>	<u>43</u>	<u>39</u>	<u>7,500</u>	<u>5,040</u>	<u>19.97</u>	<u>-</u>	<u>-</u>
<u>MAHARASHTRA STATE</u>							
(excl. G.B.)	<u>39</u>	<u>32</u>	<u>6,940</u>	<u>4,200</u>	<u>20.43</u>	<u>2,811</u>	<u>11.23</u>

* Based on State Average, excluding Greater Bombay.

Rs.11.23 lakh.

Vocationalising at + 2 Stage:

10.17. Following the recommendations of Kothari Commission on Education (1966), the State Government introduced vocational courses at +2 stage beginning with 1978-79 except that while the Commission had recommended that these courses be terminal, the courses in Maharashtra are not terminal but allow students to continue their higher education beyond the +2 stage. At the +2 stage (Higher Secondary) the students study a total of six subjects of which four are considered core. In lieu of the other two optional subjects, vocational subjects are introduced. There are 23 vocational subjects introduced so far. The courses are not introduced in Government institutions but only in non-Government Higher Secondary Schools/Junior Colleges. Only the recurring expenditure is met by grant-in-aid from Government while the initial expenditure on building and equipment has to be provided by the respective institutions. But, the demand for these courses has grown rapidly and beginning with 1981-82 the Government has not been able to provide additional grants-in-aid to meet even the recurring expenditure. Hence, the policy now is to allow private institutions to open these courses provided they would meet not only the initial expenditure but also the recurring expenditure. The institutions which started these courses in the first three years 1978-81 of course continue to receive the grants-in-aid to meet their recurring expenditure. This has resulted in an anomalous situation; there are at present 177 institutions which run these courses with a grant-in-aid while 93 institutions do it without any grant-in-aid.

10.18. In Table 10.4 we give the number of institutions run on a grant-in-aid basis (GIA) and on no grant-in-aid basis (NGIA) and their intake capacities in different districts. It will be noticed that the present intake capacity in the State excluding Greater Bombay is 13,900 students in GIA institutions and 6,275 students in NGIA institutions. As before, we shall work out the backlog on the basis of only the Government-aided institutions. In Col.6, the intake capacity in GIA institutions is expressed as per lakh of population. In Col.7 is shown the backlog in terms of additional student capacity in GIA institutions needed to bring the lagging districts to the State Average. The cost of the backlog is estimated at the rate of Rs.150/- of recurring expenditure per student. It is shown in Col.8. The total for the State, excluding Greater Bombay, is Rs.6.52 lakh.

Polytechnics:

10.19. We have so far covered facilities for technical training under the administration of the Directorate of Technical Training. As mentioned at the beginning, these do not offer diploma or degree level course. The latter are under the control of the Directorate of Technical Education. The diploma level courses are offered in the Polytechnics while the degree and post-graduate level courses are offered in Engineering Colleges.

Table 10.4

Vocationalisation Scheme at +2 Stage

as on March 31, 1983.

District	Number of Institutes		Intake Capacity		Intake Capacity of GIA per lakh of 1981 Population	Backlog of Students in GIA Institutes	Recurring Cost @ Rs.150 per Student (Rs. Lakh)
	G I A	N G I A	G I A	N G I A			
1	2	3	4	5	6	7	8
1. Greater Bombay	21	4	2,000	275	24.26	-	-
2. Thane	3	4	300	250	8.95	554	0.83
3. Raigad	7	2	450	100	30.27	-	-
4. Ratnagiri	9	6	900	375	42.63	-	-
<u>KONKAN</u>							
(excl. G.B.)	19	12	1,650	725	23.74	554	0.83
5. Nashik	11	5	1,150	650	38.44	-	-
6. Dhule	-	6	-	275	-	523	0.78
7. Jalgaon	1	3	150	150	5.73	517	0.78
8. Ahmednagar	3	8	200	575	7.38	490	0.74
9. Pune	14	2	750	200	18.01	311	0.47
10. Satara	3	9	100	550	4.91	419	0.63
11. Sangli	2	4	100	200	5.46	367	0.55
12. Solapur	7	2	600	175	22.99	65	0.10
13. Kolhapur	10	7	1,250	450	49.87	-	-
<u>WESTERN MAHARASHTRA</u>	51	46	4,300	3,225	18.28	2,692	4.05
14. Aurangabad	14	1	1,250	50	51.36	-	-
15. Parbhani	3	4	200	175	10.93	266	0.40
16. Beed	2	-	150	-	10.09	229	0.34
17. Nanded	7	1	600	25	34.30	-	-
18. Osmanabad	7	3	650	200	29.14	-	-
<u>MARATHWADA</u>	33	9	2,850	450	29.29	495	0.74
19. Buldhana	2	3	150	175	9.94	235	0.35
20. Akola	7	6	500	475	27.37	-	-
21. Amravati	12	5	1,400	400	75.21	-	-
22. Yavatmal	6	1	550	150	31.66	-	-
23. Wardha	7	1	500	75	53.96	-	-
24. Nagpur	11	1	1,000	300	38.63	-	-
25. Bhandara	1	5	100	300	5.44	368	0.55
26. Chandrapur	7	-	900	-	43.78	-	-
<u>VIDARBHA</u>	53	22	5,100	1,875	35.56	603	0.90
<u>MAHARASHTRA STATE</u>	177	93	15,900	6,550	25.32	4,344	6.52
<u>MAHARASHTRA STATE</u>							
(excl. G.B.)	156	89	13,900	6,275	25.49	4,344	6.52

We shall first consider the Polytechnics.

10.20. In Table 10.5A, we give the number of seats in different branches available in Government polytechnics in different districts. The pattern seems to be to have at least one Government polytechnic with 60 seats each in Civil, Mechanical and Electrical engineering. We suggest that we should take this as the norm to assess the backlog of districts.

10.21. It is obviously not possible to expect similar parity of seats between districts in other branches. Hence, we shall examine the situation at the regional level. In Table 10.5B, we give the details. It will be seen that out of the total of 555 seats in branches other than civil, mechanical, and electrical engineering, there are 65 in Greater Bombay, 190 in Western Maharashtra, 160 in Marathwada, 140 in Vidarbha and none in Konkan. We suggest that at least 80 seats may be provided in Konkan in branches other than civil, mechanical, and electrical engineering. For purposes of estimating the backlog, we may place them conveniently: 20 in Thane, 20 in Raigad, and 40 in Ratnagiri-Sindhudurg.

10.22. Besides, the Government polytechnics, there are a number of Government-aided polytechnics. In Table 10.5C, we give the number of seats in them in different districts. Judging by the present distribution, we suggest that each district should have at least one Government aided polytechnic with 60 seats in any one branch or divided into two or three appropriate branches.

10.23. In Table 10.6, we show the backlog in polytechnics. In Cols.2 and 3 we show the backlog in seats in civil, mechanical, and electrical engineering in Col.2 and in other branches in Col.3. In Cols.4 and 5, we show the capital and recurring costs estimated at Rs.100,000 per seat and Rs.6,000 per seat per annum respectively. In Col.6 we show the backlog in seats in Government-aided polytechnics. There is no capital cost on Government account in respect of the aided polytechnics. The recurring cost is estimated at Rs.2,000 per seat per annum and shown in Col.7. In all cases, we have taken into account the needs of the four new districts, namely, Sindhudurg, Jalna, Latur and Gadchiroli. It will be noticed that the capital cost of the backlog in polytechnics amounts to Rs.27.70 crore and the recurring cost to Rs.1.87 crore per annum.

Engineering Colleges:

10.24. In Table 10.7, we give the number of seats in Engineering Colleges located in different districts. Obviously, it is not possible at present to discuss the disparities in terms of districts. The engineering colleges are attached to different universities. The present practice is to pool all the seats and to distribute them between the universities in proportion to the number of students appearing for the Higher Secondary examination within the area of each university. This tends to perpetuate the disparities in secondary education. We suggest that the seats in

Table 10.5A

Government Polytechnics : Number of Seats

District	Number of Seats in Engineering Subjects				Total	Seats for Other Subjects	Total Col.(5) + (6)
	Civil	Mechanical	Electrical	Total			
1	2	3	4	5	6	7	
1.Greater Bombay	120	-	-	120	65	185	
2.Thane	-	-	-	-	-	-	
3.Raigad	-	-	-	-	-	-	
4.Ratnagiri	60	60	60	180	-	180	
<u>KONKAN</u>							
(excl. G.B.)	60	60	60	180	-	180	
5.Nashik	60	-	-	60	-	60	
6.Dhule	60	60	60	180	-	180	
7.Jalgaon	60	60	60	180	60	240	
8.Ahmednagar	-	-	-	-	-	-	
9.Pune	100	120	60	280	50	330	
10.Satara	60	60	60	180	60	240	
11.Sangli	-	-	-	-	-	-	
12.Solapur	60	60	60	180	20	200	
13.Kolhapur	60	60	60	180	-	180	
<u>WESTERN MAHARASHTRA</u>	<u>460</u>	<u>420</u>	<u>360</u>	<u>1,240</u>	<u>190</u>	<u>1,430</u>	
14.Aurangabad	60	60	40	160	40	200	
15.Parbhani	30	-	-	30	-	30	
16.Beed	30	-	-	30	-	30	
17.Nanded	40	40	40	120	-	120	
18.Osmanabad	60	60	30	150	120	270	
<u>MARATHWADA</u>	<u>220</u>	<u>160</u>	<u>110</u>	<u>490</u>	<u>160</u>	<u>650</u>	
19.Buldhana	60	60	60	180	-	180	
20.Akola	60	-	-	60	-	60	
21.Amravati	60	60	60	180	60	240	
22.Yavatmal	40	40	40	120	-	120	
23.Wardha	-	-	-	-	-	-	
24.Nagpur	70	40	40	150	80	230	
25.Bhandara	30	-	-	30	-	30	
26.Chandrapur	-	-	-	-	-	-	
<u>VIDARBHA</u>	<u>320</u>	<u>200</u>	<u>200</u>	<u>720</u>	<u>140</u>	<u>860</u>	
<u>MAHARASHTRA STATE</u>	<u>1,180</u>	<u>840</u>	<u>730</u>	<u>2,750</u>	<u>555</u>	<u>3,305</u>	
<u>MAHARASHTRA STATE</u>							
(excl. G.B.)	1,060	840	730	2,630	490	3,120	

Table 10.5B

Government Polytechnics : Number of Seats for Other Subjects

Courses	Greater Bombay	Konkan (Excl. G.B.)	Western Maharashtra	Marathwada	Vidarbha	Total
1	2	3	4	5	6	7
1. Pharmacy	-	-	120	90	60	270
2. Telecommunications	-	-	20	-	-	20
3. Metallurgy	-	-	30	-	30	60
4. Electronics/Radio Engineering/ Industrial Electronics	-	-	-	50	-	50
5. Production Engineering	-	-	-	-	-	-
6. Auto Engineering	-	-	-	-	-	-
7. Mining and Mine Surveying	-	-	-	-	30	30
8. Textile Technology	-	-	-	-	-	-
9. Textile Manufacturing	-	-	20	-	20	40
10. Dress Making and Designing	-	-	-	20	-	20
11. Leather Technology	10	-	-	-	-	10
12. Leather and Footwear Manufacture	5	-	-	-	-	5
13. Letter Press Printing	30	-	-	-	-	30
14. Litho Offset Printing	20	-	-	-	-	20
15. Sugar Chemical Control	-	-	-	-	-	-
<u>TOTAL</u>	<u>65</u>	<u>-</u>	<u>190</u>	<u>160</u>	<u>140</u>	<u>555</u>

Table 10.5C

Government Aided Polytechnics : Number of Seats

District	Civil	Mechan- ical	Electri- cal	Pharmacy	Others	Total
1	2	3	4	5	6	7
1. Greater Bombay	190	220	200	-	710	1,320
2. Thane	-	-	-	60	-	60
3. Raigad	-	-	-	-	30	30
4. Ratnagiri	-	-	-	-	-	-
<u>KONKAN</u>						
(excl. G.B.)	-	-	-	60	30	90
5. Nashik	-	-	-	60	-	60
6. Dhule	-	-	-	-	-	-
7. Jalgaon	-	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-	-
9. Pune	60	60	60	60	170	410
10. Satara	-	-	-	-	-	-
11. Sangli	30	60	60	60	30	240
12. Solapur	-	-	-	60	-	60
13. Kolhapur	120	-	60	60	-	240
<u>WESTERN MAHARASHTRA</u>	<u>210</u>	<u>120</u>	<u>180</u>	<u>300</u>	<u>200</u>	<u>1,010</u>
14. Aurangabad	-	-	-	60	-	60
15. Parbhani	-	-	-	-	-	-
16. Beed	-	-	-	-	-	-
17. Nanded	-	-	-	-	-	-
18. Osmanabad	-	-	-	30	-	30
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>90</u>	<u>-</u>	<u>90</u>
19. Buldhana	-	-	-	-	-	-
20. Akola	-	-	-	60	-	60
21. Amravati	120	-	-	-	-	120
22. Yavatmal	-	-	-	-	-	-
23. Wardha	120	-	-	30	-	150
24. Nagpur	-	-	-	60	60	120
25. Bhandara	-	-	-	-	-	-
26. Chandrapur	-	-	-	-	-	-
<u>VIDARBHA</u>	<u>240</u>	<u>-</u>	<u>-</u>	<u>150</u>	<u>60</u>	<u>450</u>
<u>MAHARASHTRA STATE</u>	<u>640</u>	<u>340</u>	<u>380</u>	<u>600</u>	<u>1,000</u>	<u>2,960</u>
<u>(excl. G.B.)</u>	<u>450</u>	<u>120</u>	<u>180</u>	<u>600</u>	<u>290</u>	<u>1,640</u>

Table 10.6

Backlog in Polytechnics

District	GOVERNMENT POLYTECHNICS				GOVERNMENT-AIDED POLYTECHNICS	
	Backlog of Seats	Others	Cost of Capital @ Rs.1 lakh per seat (Rs. Lakh)	Cost of Recurring @ Rs.6,000 per seat	Backlog of Seats	Recurring Cost @ Rs.2,000 per seat (Rs.Lakh)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	180	20	200.00	12.00	-	-
3. Raigad	180	20	200.00	12.00	30	0.60
4. Ratnagiri	180	40	220.00	13.20	120	2.40
<u>KONKAN</u>						
(excl. G.B.)	540	80	620.00	37.20	150	3.00
5. Nashik	120	-	120.00	7.20	-	-
6. Dhule	-	-	-	-	60	1.20
7. Jalgaon	-	-	-	-	60	1.20
8. Ahmednagar	180	-	180.00	10.80	60	1.20
9. Pune	-	-	-	-	-	-
10. Satara	-	-	-	-	60	1.20
11. Sangli	180	-	180.00	10.80	-	-
12. Solapur	-	-	-	-	-	-
13. Kolhapur	-	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	480	-	480.00	28.80	240	4.80
14. Aurangabad	200	-	200.00	12.00	60	1.20
15. Parbhani	150	-	150.00	9.00	60	1.20
16. Beed	150	-	150.00	9.00	60	1.20
17. Nanded	60	-	60.00	3.60	60	1.20
18. Osmanabad	210	-	210.00	12.60	90	1.80
<u>MARATHWADA</u>	770	-	770.00	46.20	330	6.60
19. Buldhana	-	-	-	-	60	1.20
20. Akola	120	-	120.00	7.20	-	-
21. Amravati	-	-	-	-	-	-
22. Yavatmal	60	-	60.00	3.60	60	1.20
23. Wardha	180	-	180.00	10.80	-	-
24. Nagpur	30	-	30.00	1.80	-	-
25. Bhandara	150	-	150.00	9.00	60	1.20
26. Chandrapur	360	-	360.00	21.60	120	2.40
<u>VIDARBHA</u>	900	-	900.00	54.00	300	6.00
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	2,690	80	2,770.00	166.20	1,020	20.40

Table 10.7

Engineering Colleges

District	Number of Colleges	Number of Seats for Degree Course
1	2	3
1. Greater Bombay	2	420
2. Thane	-	-
3. Raigad	-	-
4. Ratnagiri	-	-
<u>KONKAN</u>		
(excl. G.B.)	-	-
5. Nashik	-	-
6. Dhule	-	-
7. Jalgaon	-	-
8. Ahmednagar	-	-
9. Pune	1	430
10. Satara	1	180
11. Sangli	1	180
12. Solapur	-	-
13. Kolhapur	-	-
<u>WESTERN MAHARASHTRA</u>	<u>3</u>	<u>790</u>
14. Aurangabad	1	180
15. Parbhani	-	-
16. Beed	-	-
17. Nanded	1	60
18. Osmanabad	-	-
<u>MARATHWADA</u>	<u>2</u>	<u>240</u>
19. Buldhana	-	-
20. Akola	-	-
21. Amravati	1	180
22. Yavatmal	-	-
23. Wardha	-	-
24. Nagpur	1	110
25. Bhandara	-	-
26. Chandrapur	-	-
<u>VIDARBHA</u>	<u>2</u>	<u>290</u>
<u>MAHARASHTRA STATE</u>	<u>9</u>	<u>1,740</u>
<u>MAHARASHTRA STATE</u>		
(excl. G.B.)	<u>7</u>	<u>1,320</u>

Table 10.8A.

Capital Cost of Backlog in Technical Training

(Rs. Lakh)

District	Industrial Training Institutes	Deficiencies of Temporarily affiliated ITIs	Technical High Schools/Centres	Polytechnics	Total Cols.(2) + (3) + (4) + (5)
1	2	3	4	5	6
1.Greater Bombay	822.50	-	-	-	822.50
2.Thane	-	86.00	-	200.00	286.00
3.Raigad	-	-	52.30	200.00	252.30
4.Ratnagiri	-	-	36.00	220.00	256.00
KONKAN					
<u>(excl. G.B.)</u>	-	86.00	88.30	620.00	794.30
5.Nashik	-	84.50	82.10	120.00	286.60
6.Dhule	-	106.80	-	-	106.80
7.Jalgaon	135.50	80.00	-	-	215.50
8.Ahmednagar	234.00	-	54.50	180.00	468.50
9.Pune	-	371.95	-	-	371.95
10.Satara	-	-	-	-	-
11.Sangli	-	-	-	180.00	180.00
12.Solapur	273.50	-	-	-	273.50
13.Kolhapur	-	-	-	-	-
WESTERN MAHARASHTRA	<u>643.00</u>	<u>643.25</u>	<u>136.60</u>	<u>480.00</u>	<u>1,902.85</u>
14.Aurangabad	54.50	-	70.60	200.00	325.10
15.Parbhani	213.50	-	43.60	150.00	407.10
16.Beed	65.50	-	-	150.00	215.50
17.Nanded	32.00	85.15	55.20	60.00	232.35
18.Osmanabad	-	254.22	36.50	210.00	500.72
MARATHWADA	<u>365.50</u>	<u>339.37</u>	<u>205.90</u>	<u>770.00</u>	<u>1,680.77</u>
19.Buldhana	33.00	-	54.10	-	87.10
20.Akola	55.50	83.95	85.40	120.00	344.85
21.Amravati	-	79.50	118.10	-	197.60
22.Yavatmal	145.00	-	72.20	60.00	277.20
23.Wardha	-	-	-	180.00	180.00
24.Nagpur	-	80.50	49.00	30.00	159.50
25.Bhandara	42.00	-	32.20	150.00	224.20
26.Chandrapur	113.00	-	73.60	360.00	546.60
VIDARBHA	<u>388.50</u>	<u>243.95</u>	<u>484.60</u>	<u>900.00</u>	<u>2,017.05</u>
MAHARASHTRA STATE	<u>2,219.50</u>	<u>1,312.57</u>	<u>915.40</u>	<u>2,770.00</u>	<u>7,217.47</u>
MAHARASHTRA STATE					
<u>(excl. G.B.)</u>	<u>1,397.00</u>	<u>1,312.57</u>	<u>915.40</u>	<u>2,770.00</u>	<u>6,394.97</u>

Table 10.8B

Recurring Cost of Backlog in Technical Training

(Rs. Lakh)

District	Industrial Training Institutes	Technical High Schools/Centres	Higher Secondary Schools	Vocational Courses	Polytechnics	Total Cols.(2)+(3)+(4)+(5)+(6)
1	2	3	4	5	6	7
1. Greater Bombay	49.35	-	-	-	-	49.35
2. Thane	-	-	1.06	0.83	12.00	13.89
3. Raigad	-	2.09	0.74	-	12.60	15.43
4. Ratnagiri	-	1.44	0.76	-	15.60	17.80
<u>KONKAN</u>						
(excl. G.B.)	-	3.53	2.56	0.83	40.20	47.12
5. Nashik	-	3.28	0.52	-	7.20	11.00
6. Dhule	-	-	0.72	0.78	1.20	2.70
7. Jalgaon	8.13	-	-	0.78	1.20	10.11
8. Ahmednagar	14.04	2.18	0.45	0.74	12.00	29.41
9. Pune	-	-	-	0.47	-	0.47
10. Satara	-	-	-	0.63	1.20	1.83
11. Sangli	-	-	-	0.55	10.80	11.35
12. Solapur	16.41	-	-	0.10	-	16.51
13. Kolhapur	-	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>						
14. Aurangabad	3.27	2.82	0.07	-	13.20	19.36
15. Parbhani	12.81	1.74	1.02	0.40	10.20	26.17
16. Beed	3.93	-	0.26	0.34	10.20	14.73
17. Nanded	1.92	2.21	0.45	-	4.80	9.38
18. Osmanabad	-	1.46	0.38	-	14.40	16.24
<u>MARATHWADA</u>						
19. Buldhana	1.98	2.16	0.75	0.35	1.20	6.44
20. Akola	3.33	3.42	0.53	-	7.20	14.48
21. Amravati	-	4.72	1.04	-	-	5.76
22. Yavatmal	8.70	2.89	0.94	-	4.80	17.33
23. Wardha	-	-	-	-	10.80	10.80
24. Nagpur	-	1.96	0.76	-	1.80	4.52
25. Bhandara	2.52	1.29	0.54	0.55	10.20	15.10
26. Chandrapur	6.78	2.94	0.24	-	24.00	33.96
<u>VIDARBHA</u>						
23.11	23.31	19.38	4.80	0.90	60.00	108.39
<u>MAHARASHTRA STATE</u>						
23.11	133.17	36.60	11.23	6.52	186.60	374.12
<u>MAHARASHTRA STATE (excl. G.B.)</u>						
	83.82	36.60	11.23	6.52	186.60	324.77

Table 10.8C

Cost of Deficiencies in ITIs* and Technical High Schools/Centres

(Rs. Lakh)

District	<u>Industrial Training Institutes</u>	<u>Technical High Schools/Centres</u>		<u>Total</u>	
	Capital Cost	Capital Cost	Recurring Cost	Capital Cost Cols.(2) + (3)	Recurring Cost Col.(4)
1	2	3	4	5	6
1.Greater Bombay	197.00	44.55	0.42	241.55	0.42
2.Thane	347.00	44.71	1.63	391.71	1.63
3.Raigad	182.00	21.22	0.47	203.22	0.47
4.Ratnagiri	266.35	11.22	0.49	277.57	0.49
KONKAN					
<u>(excl. G.B.)</u>	<u>795.35</u>	<u>77.15</u>	<u>2.59</u>	<u>872.50</u>	<u>2.59</u>
5.Nashik	158.35	7.21	0.51	165.56	0.51
6.Dhule	112.50	53.70	0.96	166.20	0.96
7.Jalgaon	49.00	78.84	0.99	127.84	0.99
8.Ahmednagar	215.80	9.31	0.16	225.11	0.16
9.Pune	297.50	6.73	0.32	304.23	0.32
10.Satara	218.50	3.88	0.33	222.38	0.33
11.Sangli	127.00	-	-	127.00	-
12.Solapur	131.80	7.92	0.11	139.72	0.11
13.Kolhapur	138.95	14.96	0.13	153.91	0.13
WESTERN MAHARASHTRA	<u>1,449.40</u>	<u>182.55</u>	<u>3.51</u>	<u>1,631.95</u>	<u>3.51</u>
14.Aurangabad	242.50	45.91	0.74	288.41	0.74
15.Parbhani	101.93	84.82	1.31	186.75	1.31
16.Beed	95.90	89.29	1.01	185.19	1.01
17.Nanded	65.97	74.76	0.69	140.73	0.69
18.Osmanabad	93.50	47.56	1.29	141.06	1.29
MARATHWADA	<u>599.80</u>	<u>342.34</u>	<u>5.04</u>	<u>942.14</u>	<u>5.04</u>
19.Buldhana	179.98	10.00	0.41	189.98	0.41
20.Akola	94.12	5.86	0.04	99.98	0.04
21.Amravati	94.03	13.87	0.12	107.90	0.12
22.Yavatmal	198.44	35.90	0.57	234.34	0.57
23.Wardha	168.28	38.64	1.04	206.92	1.04
24.Nagpur	165.80	28.06	0.48	193.86	0.48
25.Bhandara	145.52	19.36	0.57	164.88	0.57
26.Chandrapur	226.98	18.02	0.61	245.00	0.61
VIDARBHA	<u>1,273.15</u>	<u>169.71</u>	<u>3.84</u>	<u>1,442.86</u>	<u>3.84</u>
MAHARASHTRA STATE	<u>4,314.70</u>	<u>817.04</u>	<u>15.40</u>	<u>5,131.00</u>	<u>15.40</u>
MAHARASHTRA STATE (excl. G.B.)	<u>4,117.70</u>	<u>771.75</u>	<u>14.98</u>	<u>4,889.45</u>	<u>14.98</u>

* Other than temporarily affiliated ITIs.

the engineering colleges should be distributed between the universities in proportion to population of the area of each university.

Aggregate Backlog:

10.25. We may now bring together the capital and recurring cost of making up the backlog in the several items of technical training/education. We do this in three Tables, 10.8A, 10.8B and 10.8C. In Table 10.8A, we show the capital cost of making up the backlog. In the State as a whole, including Greater Bombay, it adds up to Rs.72.17 crore; Rs.35.32 crore in Industrial Training Institutes, Rs.9.15 crore in Technical High Schools/Centres, and Rs.27.70 crore in Polytechnics. In this, we have taken into account the building and equipment deficiencies in the 15 ITIs not granted permanent affiliation by the DGE&T. In Table 10.8B, we bring together the recurring cost of removing the backlog. In the State as a whole, including Greater Bombay, it adds up to Rs.3.74 crore; Rs.133.17 lakh in Industrial Training Institutes, Rs.36.60 lakh in Technical High Schools/Centres, Rs.11.23 lakh in Higher Secondary Schools, Rs.6.52 lakh in vocational courses and Rs.186.60 lakh in Polytechnics. Finally, in Table 10.8C, we bring together the cost of making up the deficiencies in Government Industrial Training Institutes and Technical High Schools/Centres. Here we have considered ITIs other than the 15 mentioned above. The capital cost is estimated at Rs.48.89 crore and recurring cost at Rs.14.98 lakh. We do not add these costs to the backlog. However, clearly, the deficiencies will have to be made good in due course.

Annexure

CRAFTSMAN TRAINING SCHEME (I.T.I.)

List of Engineering & Non-Engineering trades, with period of training and minimum educational qualification for admission.

Sr. No.	Name of trade	Duration in years	Qualification for admission
<u>Engineering (NCVT)</u>			
1.	Blacksmith	1)	
2.	Welder (Gas & Electric)	1)	
3.	Sheet Metal Worker	1)	
4.	Moulder	1)	
5.	Carpenter	1)	
6.	Mech. (Tractor)	1)	
7.	Mech. (Diesel)	1)	
8.	Plumber	1)	Should have passed
9.	Painter	1)	8th Std. (New) or
10.	Fitter	2)	its equivalent
11.	Turner	2)	examination
12.	Machinist	2)	
13.	Machinist (Grinder)	2)	
14.	Mech. (M.V.)	2)	
15.	Building Construction	2)	
16.	Pattern Maker	2)	
17.	Wireman	2)	
18.	Farm Mech.)	
19.	Electro Plater	2)	
20.	Mech. Millwright Maintenance	2)	Should have passed
21.	Electrician	2)	S.S.C. Exam. with
22.	Mech. Instrument	2)	Science or its
23.	Tool & Die Maker	2)	equivalent exam.
24.	Mech. (Refrigeration & Air Conditioning)	2)	
25.	Watch & Clock Maker	2)	
26.	Wireless Operator	1)	
27.	D`Man (Mech.)	2)	Should have passed
28.	D`Man (Civil)	2)	S.S.C. Exam. with
29.	Surveyor	2)	Science & Mathematics
30.	Mech. (Radio & T.V.)	2)	or its equivalent
31.	Electronics	2)	exam.
<u>Non-Engineering</u>			
32.	Book Binding	1)	
33.	Cutting & Tailoring	1)	Should have passed
34.	Manufacture of Suit Cases & other Leather goods	1)	8th Std. (New) or
35.	Manufacture of Footwear	1)	its equivalent exam.
36.	Hand Composition & Proof Reading	1	S.S.C. with Profi-

			ciency in English & Regional Language.
37.	Printing Machine Operator	1	Should have passed S.S.C. or its equivalent exam.
38.	Stenographer (English)	1	S.S.C. with English.
	<u>Engineering (SCTVT)</u>		
39.	Structural Fitter	1)	S.S.C. with Science or its equivalent exam.
40.	Electrical Maint. Mech.	1)	
41.	Auto Electrician	1)	S.S.C. with Science & Mathematics or its equivalent exam.
42.	Rubber Technican	1)	
43.	Plastic Mould Maker	1)	
	<u>Non-Engineering</u>		
44.	Stenography (Marathi)		S.S.C. with Marathi

CHAPTER XI

HEALTH SERVICES

11.1. There are four indicators readily available to compare the level of health services provided by Government and Government-aided institutions in different districts in 1960-61 and 1980-81. They are : number of Government Dispensaries (include Taluka Dispensaries, Municipal Dispensaries, Allopathic Dispensaries, Ayurvedic Dispensaries, Unani Dispensaries) and Subsidised Medical Practitioner (SMP) Centres, which are all essentially static curative centres, number of Primary Health Centres and Primary Health Units (which are institutions that provide both curative and preventive health services with emphasis on the latter), Government Hospitals (include District, Cottage/Rural, Municipal, Corporation, Medical College, and Government-aided Hospitals) and beds in them, per lakh of population.

Government Dispensaries and SMP Centres:

11.2 In Table 11.1, we give the number of Government dispensaries and SMP centres in 1961 and 1981. In the following, we shall not distinguish between the two but treat the two institutions together. Their number in the State (excluding Greater Bombay) was 777 in 1961. It increased to 1,557 by 1981. Thus, over the period 1961 - 81, the number of Government dispensaries and SMP centres in the State doubled. In Cols. 6 and 7 of the Table, we show their number in 1961 and 1981 per lakh of population. In the State, this increased from 2.19 in 1961 to 2.85 in 1981, which is an increase of only 30 per cent. Moreover, the increase seems to have occurred only in Vidarbha, where the number of these centres increased from 1.53 in 1961 to 4.52 in 1981. In Marathwada, the number increased marginally from 2.05 to 2.13; in Konkan, it declined marginally from 2.27 to 2.24. In Western Maharashtra it declined considerably from 2.64 to 2.32. In 1981, the number was nearly equal in Western Maharashtra, Konkan, and Marathwada being 2.32, 2.24 and 2.13 respectively. In Vidarbha, it was very high being 4.52. Among the four regions, Vidarbha was at the bottom in 1961; by 1981, it moved to the top. We shall examine the position districtwise.

11.3. In 1961, there were very large disparities between the districts ranging from 4.22 dispensaries per lakh of population in Dhule to a mere 0.63 in Wardha. In the following, we list the districts in descending order showing the districts above and below the State Average (2.19).

Government Dispensaries and S.M.P. Centres

District	Dispensaries		S.M.P. Centres		Dispensaries/ SMP Centres per Lakh of Popula- tion	
	1961	1981	1961	1981	1961	1981
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	22	25	-	3	1.33	0.84
3. Raigad	16	18	15	34	2.93	3.50
4. Ratnagiri	14	27	36	49	2.74	3.60
<u>KONKAN</u>						
(excl. G.B.)	52	70	51	86	2.27	2.24
5. Nashik	48	32	-	22	2.59	1.80
6. Dhule	32	38	25	30	4.22	3.32
7. Jalgaon	50	50	21	27	4.02	2.94
8. Ahmednagar	13	12	20	23	1.86	1.29
9. Pune	23	24	24	54	1.91	1.87
10. Satara	28	28	21	33	3.43	2.99
11. Sangli	21	71	9	-	2.44	3.88
12. Solapur	33	17	15	19	2.58	1.38
13. Kolhapur	21	63	-	2	1.32	2.59
<u>WESTERN MAHARASHTRA</u>	269	335	135	210	2.64	2.32
14. Aurangabad	26	26	-	-	1.70	1.07
15. Parbhani	27	27	-	5	2.24	1.75
16. Beed	20	21	-	-	2.00	1.41
17. Nanded	27	61	-	12	2.50	4.17
18. Osmanabad	29	28	-	27	1.96	2.47
<u>MARATHWADA</u>	129	163	-	44	2.05	2.13
19. Buldhana	16	89	-	-	1.51	5.90
20. Akola	24	75	-	-	2.02	4.10
21. Amravati	23	126	-	-	1.87	6.77
22. Yavatmal	7	46	-	2	0.64	2.76
23. Wardha	4	42	-	-	0.63	4.53
24. Nagpur	25	82	-	1	1.65	3.21
25. Bhandara	12	112	-	-	0.95	6.09
26. Chandrapur	30	74	-	-	2.42	3.60
<u>VIDARBHA</u>	141	646	-	3	1.53	4.52
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	591	1,214	186	343	2.19	2.85

Number of Dispensaries and SMP Centres
Per Lakh of Population, 1961

<u>Districts above State Average</u>	<u>(2.19)</u>	<u>Districts Below State Average</u>	<u>(2.19)</u>
Dhule	4.22	Akola	2.02
Jalgaon	4.02	Beed	2.00
Satara	3.43	Osmanabad	1.96
Raigad	2.93	Pune	1.91
Ratnagiri	2.74	Amravati	1.87
Nashik	2.59	Ahmednagar	1.86
Solapur	2.58	Aurangabad	1.70
Nanded	2.50	Nagpur	1.65
Sangli	2.44	Buldhana	1.51
Chandrapur	2.42	Thane	1.33
Parbhani	2.24	Kolhapur	1.32
		Bhandara	0.95
		Yavatmal	0.64
		Wardha	0.63

11.4. By 1981, the disparities between districts were even larger and considerable reordering of the districts had occurred. The number of dispensaries and SMP centres per lakh of population ranged from 6.77 in Amravati to 0.84 in Thane. In the following, the districts are listed in descending order in two columns as before:

Number of Dispensaries and SMP Centres
Per Lakh of Population, 1981

<u>Districts Above State Average</u>	<u>(2.85)</u>	<u>Districts Below State Average</u>	<u>(2.85)</u>
Amravati	6.77	Yavatmal	2.76
Bhandara	6.09	Kolhapur	2.59
Buldhana	5.90	Osmanabad	2.47
Wardha	4.53	Pune	1.87
Nanded	4.17	Nashik	1.80
Akola	4.10	Parbhani	1.75
Sangli	3.88	Beed	1.41
Chandrapur	3.60	Solapur	1.38
Ratnagiri	3.60	Ahmednagar	1.29
Raigad	3.50	Aurangabad	1.07
Dhule	3.32	Thane	0.84
Nagpur	3.21		
Satara	2.99		
Jalgaon	2.94		

11.5. During the two decades 1961 - 81, the number of dispensaries and SMP centres per lakh of population actually declined in all districts of Western Maharashtra except Sangli and Kolhapur, and also in Thane, Aurangabad, Parbhani and Beed.

Primary Health Units & Primary Health Centres:

11.6. Next, we may consider Primary Health Units and Primary Health Centres. Here again, we shall treat the two institutions together. Relevant information is given in Table 11.2. Their number in the State (excluding Greater Bombay) was 287 in 1961; it increased to 831, that is almost treble, by 1981. Per million population, their number increased from 8.11 in 1961 to 15.24, that is less than double, by 1981. In 1961, the number ranged from 10.48 in Marathwada to 6.28 in Vidarbha. In 1981, Konkan, Vidarbha and Western Maharashtra were more or less on par, with PHU and PHC per million population at 15.40, 14.43, and 14.03 respectively; but Marathwada was far ahead with 19.22 PHU and PHC per million population.

11.7. Districtwise, the number of PHU and PHC per million population 1961 ranged from 26.34 in Pune to 3.38 in Osmanabad. In 1981, the disparities were much smaller; the number ranged from 22.20 in Raigad to 7.34 in Nagpur. In the following, we list the districts in descending order according to the number of PHU and PHC per million population in 1961 and 1981:

Number of PHU and PHC per million of Population 1961

<u>Districts Above State Average</u> <u>(8.11)</u>		<u>Districts Below State Average</u> <u>(8.11)</u>	
Pune	26.34	Wardha	7.88
Parbhani	16.58	Akola	7.57
Aurangabad	13.70	Sangli	7.32
Beed	12.98	Yavatmal	7.28
Ratnagiri	9.85	Raigad	6.61
Amravati	8.11	Nanded	6.48
		Kolhapur	6.26
		Buldhana	5.66
		Chandrapur	5.65
		Satara	5.59
		Bhandara	5.52
		Dhule	5.18
		Ahmednagar	5.07
		Thane	4.84
		Solapur	4.30
		Nagpur	3.97
		Jalgaon	3.97
		Nashik	3.77
		Osmanabad	3.38

Number of PHU and PHC per million of Population 1981

<u>Districts Above State Average</u> <u>(15.24)</u>		<u>Districts Below State Average</u> <u>(15.24)</u>	
Raigad	22.20	Satara	15.21
Parbhani	21.32	Amravati	15.04
Ratnagiri	20.84	Buldhana	14.58
Wardha	20.50	Ahmednagar	14.40

Table 11.2

Primary Health Units and Primary Health Centres

District	<u>Primary Health Units</u>		<u>Primary Health Centres</u>		<u>PHU and PHC Per million Population</u>	
	1961	1981	1961	1981	1961	1981
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	2	6	6	24	4.84	8.95
3. Raigad	2	15	5	18	6.61	22.20
4. Ratnagiri	6	18	12	26	9.85	20.84
<u>KONKAN</u>						
(excl. G.B.)	<u>10</u>	<u>39</u>	<u>23</u>	<u>68</u>	<u>7.27</u>	<u>15.40</u>
5. Nashik	1	12	6	22	3.77	11.36
6. Dhule	-	13	7	21	5.18	16.58
7. Jalgaon	-	3	7	22	3.97	9.55
8. Ahmednagar	3	21	6	18	5.07	14.40
9. Pune	58	48	7	24	26.34	17.29
10. Satara	1	14	7	17	5.59	15.21
11. Sangli	2	16	7	12	7.32	15.29
12. Solapur	2	12	6	16	4.30	10.73
13. Kolhapur	7	23	3	16	6.26	15.56
<u>WESTERN MAHARASHTRA</u>	<u>74</u>	<u>162</u>	<u>56</u>	<u>168</u>	<u>8.48</u>	<u>14.03</u>
14. Aurangabad	14	29	7	19	13.70	19.73
15. Parbhani	14	25	6	14	16.58	21.32
16. Beed	6	16	7	13	12.98	19.52
17. Nanded	-	21	7	13	6.48	19.44
18. Osmanabad	-	22	5	15	3.38	16.59
<u>MARATHWADA</u>	<u>34</u>	<u>113</u>	<u>32</u>	<u>74</u>	<u>10.48</u>	<u>19.22</u>
19. Buldhana	-	9	6	13	5.66	14.58
20. Akola	-	11	9	13	7.57	13.14
21. Amravati	-	14	10	14	8.11	15.04
22. Yavatmal	-	11	8	17	7.28	16.12
23. Wardha	-	11	5	8	7.88	20.50
24. Nagpur	-	6	6	13	3.97	7.34
25. Bhandara	-	9	7	16	5.52	13.60
26. Chandrapur	-	15	7	27	5.65	20.43
<u>VIDARBHA</u>	<u>-</u>	<u>86</u>	<u>58</u>	<u>121</u>	<u>6.28</u>	<u>14.43</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>118</u>	<u>400</u>	<u>169</u>	<u>431</u>	<u>8.11</u>	<u>15.24</u>

Chandrapur	20.43	Bhandara	13.60
Aurangabad	19.73	Akola	13.14
Beed	19.52	Nashik	11.36
Nanded	19.44	Solapur	10.73
Pune	17.29	Jalgaon	9.55
Osmanabad	16.59	Thane	8.95
Dhule	16.58	Nagpur	7.34
Yavatmal	16.12		
Kolhapur	15.56		
Sangli	15.29		

Government Hospitals:

11.8. In Table 11.3, we present similar data for Government hospitals. In 1961, there were 175 hospitals in the State (excluding Greater Bombay); by 1981, their number increased to 454. In Cols. 4 and 5, the number of hospitals is expressed per million population. In the State, it increased from 4.94 in 1961 to 8.32 in 1981, which is an increase of 68.42 per cent. In 1961, there were large disparities between the regions, the number of hospitals per million population ranging from 10.18 in Vidarbha to 1.59 in Marathwada. These disparities have considerably narrowed down by 1981 but still they are large. In 1981, the number of hospitals per million population ranged from 11.36 in Vidarbha to 5.04 in Marathwada. We shall examine the position districtwise.

11.9. In 1961, the disparities between the districts were very large. The number of hospitals per million population ranged from 13.88 in Nagpur to mere 0.68 in Osmanabad. By 1981, the disparities have narrowed down considerably but they are still large. The number of hospitals per million population now range from 15.11 in Wardha to a mere 2.73 in Parbhani. In the following, we list the districts in descending order according to number of hospitals per million population in 1961 and 1981:

<u>Number of Hospitals per million of Population, 1961</u>			
<u>Districts Above State Average</u>		<u>Districts Below State Average</u>	
<u>(4.94)</u>		<u>(4.94)</u>	
Nagpur	13.88	Solapur	4.84
Buldhana	13.21	Akola	4.20
Yavatmal	12.74	Ratnagiri	3.83
Wardha	12.61	Dhule	3.70
Amravati	11.36	Nanded	3.70
Chandrapur	7.27	Satara	3.50
Bhandara	7.10	Ahmednagar	3.38
Raigad	6.61	Thane	3.03
Pune	6.08	Nashik	2.16
		Beed	2.00
		Kolhapur	1.88
		Jalgaon	1.70
		Sangli	1.63
		Aurangabad	1.31
		Parbhani	0.83
		Osmanabad	0.68

Table 11.3

Government and Government-Aided Hospitals

District	<u>Hospitals</u>		<u>Number of Hospitals per million Population</u>	
	1961	1981	1961	1981
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	5	27	3.03	8.06
3. Raigad	7	13	6.61	8.75
4. Ratnagiri	7	15	3.83	7.10
<u>KONKAN</u>				
<u>(excl. G.B.)</u>	<u>19</u>	<u>55</u>	<u>4.19</u>	<u>7.91</u>
5. Nashik	4	25	2.16	8.36
6. Dhule	5	15	3.70	7.32
7. Jalgaon	3	15	1.70	5.73
8. Ahmednagar	6	20	3.38	7.38
9. Pune	15	47	6.08	11.29
10. Satara	5	15	3.50	7.36
11. Sangli	2	12	1.63	6.55
12. Solapur	9	22	4.84	8.43
13. Kolhapur	3	16	1.88	6.38
<u>WESTERN MAHARASHTRA</u>	<u>52</u>	<u>187</u>	<u>3.39</u>	<u>7.95</u>
14. Aurangabad	2	21	1.31	8.63
15. Parbhani	1	5	0.83	2.73
16. Beed	2	5	2.00	3.36
17. Nanded	4	8	3.70	4.57
18. Osmanabad	1	10	0.68	4.48
<u>MARATHWADA</u>	<u>10</u>	<u>49</u>	<u>1.59</u>	<u>5.04</u>
19. Buldhana	14	20	13.21	13.26
20. Akola	5	19	4.20	10.40
21. Amravati	14	28	11.36	15.04
22. Yavatmal	14	18	12.74	10.36
23. Wardha	8	14	12.61	15.11
24. Nagpur	21	39	13.88	15.06
25. Bhandara	9	10	7.10	5.44
26. Chandrapur	9	15	7.27	7.30
<u>VIDARBHA</u>	<u>94</u>	<u>163</u>	<u>10.18</u>	<u>11.36</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>175</u>	<u>454</u>	<u>4.94</u>	<u>8.32</u>

Number of Hospitals per million of Population, 1981

<u>Districts Above State Average</u>	<u>(8.32)</u>	<u>Districts Below State Average</u>	<u>(8.32)</u>
Wardha	15.11	Thane	8.06
Nagpur	15.06	Ahmednagar	7.38
Amravati	15.04	Satara	7.36
Buldhana	13.26	Dhule	7.32
Pune	11.29	Chandrapur	7.30
Akola	10.40	Ratnagiri	7.10
Yavatmal	10.36	Sangli	6.55
Raigad	8.75	Kolhapur	6.38
Aurangabad	8.63	Jalgaon	5.73
Solapur	8.43	Bhandara	5.44
Nashik	8.36	Nanded	4.57
		Osmanabad	4.48
		Beed	3.36
		Parbhani	2.73

Hospital Beds:

11.10. Corresponding data for number of hospital beds per lakh of population is given in Table 11.4. There were 42.19 hospital beds per lakh of population in the State, excluding Greater Bombay, in 1961 and it increased to 93.03 in 1981. The disparities between districts are wide. Pune district had 172.04 beds per lakh of population in 1961 and Ahmednagar only 5.18. In 1981, again Pune district was at the top with 222.53 beds per lakh of population, while Osmanabad had only 31.56. In the following, the districts are listed in descending order of number of hospital beds per lakh of population in 1961 and 1981. It will be noticed that in 1961, 10 districts were above the State Average; in 1981, only 7 districts were above the State Average indicating growing concentration at the top:

Number of Beds Per Lakh of Population, 1961

<u>Districts Above State Average</u>	<u>(42.19)</u>	<u>Districts Below State Average</u>	<u>(42.19)</u>
Pune	172.04	Beed	40.94
Nagpur	103.58	Solapur	36.93
Wardha	93.49	Bhandara	35.01
Sangli	77.84	Nashik	32.39
Raigad	52.22	Kolhapur	31.19
Yavatmal	47.88	Nanded	27.42
Satara	43.96	Thane	26.92
Buldhana	43.60	Chandrapur	16.80
Akola	42.88	Ratnagiri	16.42
Amravati	42.67	Parbhani	15.25
		Osmanabad	11.54
		Jalgaon	9.80
		Dhule	8.58
		Aurangabad	6.98
		Ahmednagar	5.18

Table 11.4

Number of Hospital Beds : 1961 and 1981

District	Hospitals Beds		Beds per lakh of Population	
	1961	1981	1961	1981
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	445	5,053	26.92	150.17
3. Raigad	553	1,077	52.22	72.45
4. Ratnagiri	300	1,444	16.42	68.39
<u>KONKAN</u>				
(excl. G.B.)	<u>1,298</u>	<u>7,554</u>	<u>28.60</u>	<u>108.99</u>
5. Nashik	601	2,071	32.39	69.22
6. Dhule	116	1,022	8.58	49.85
7. Jalgaon	173	1,245	9.80	47.55
8. Ahmednagar	92	1,883	5.18	69.53
9. Pune	4,244	9,267	172.04	222.53
10. Satara	629	1,316	43.96	64.55
11. Sangli	958	1,836	77.84	100.26
12. Solapur	687	2,794	36.93	107.04
13. Kolhapur	498	1,350	31.19	53.86
<u>WESTERN MAHARASHTRA</u>	<u>7,998</u>	<u>22,784</u>	<u>52.17</u>	<u>96.87</u>
14. Aurangabad	107	1,794	6.98	73.72
15. Parbhani	184	620	15.25	33.89
16. Beed	410	912	40.94	61.37
17. Nanded	296	826	27.42	47.22
18. Osmanabad	169	704	11.54	31.56
<u>MARATHWADA</u>	<u>1,166</u>	<u>4,856</u>	<u>18.51</u>	<u>49.91</u>
19. Buldhana	462	773	43.60	51.23
20. Akola	510	1,465	42.88	80.19
21. Amravati	526	2,866	42.67	153.97
22. Yavatmal	526	1,103	47.88	63.48
23. Wardha	593	1,688	93.49	182.17
24. Nagpur	1,567	5,378	103.58	207.74
25. Bhandara	444	1,033	35.01	56.22
26. Chandrapur	208	1,221	16.80	59.40
<u>VIDARBHA</u>	<u>4,836</u>	<u>15,527</u>	<u>52.37</u>	<u>108.25</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
(excl. G.B.)	<u>15,298</u>	<u>50,741</u>	<u>42.19</u>	<u>93.03</u>

Number of Beds per Lakh of Population, 1981

<u>Districts Above State Average</u>	<u>(93.03)</u>	<u>Districts Below State Average</u>	<u>(93.03)</u>
Pune	222.53	Akola	80.19
Nagpur	207.74	Aurangabad	73.72
Wardha	182.17	Raigad	72.45
Amravati	153.97	Ahmednagar	69.53
Thane	150.17	Nashik	69.22
Solapur	107.04	Ratnagiri	68.39
Sangli	100.26	Satara	64.55
		Yavatmal	63.48
		Beed	61.37
		Chandrapur	59.40
		Bhandara	56.22
		Kolhapur	53.86
		Buldhana	51.23
		Dhule	49.85
		Jalgaon	47.55
		Nanded	47.22
		Parbhani	33.89
		Osmanabad	31.56

Health Care Infrastructure:

11.11. We may now examine the present position in greater detail. In recent years, the concept of health care delivery has received much attention and 'reaching health care to all' has been accepted as a primary commitment of government. Health Care is an essential and integral component of the Minimum Needs Programme first introduced in the Fifth Plan. The health care infrastructure is now being reorganised to provide comprehensive health services which include Maternal and Child Health, Family Planning, Immunizations, Nutrition, Control of Communicable Diseases, Environmental Sanitation, Medical Care and Health and Nutrition Education. The proposed institutional infrastructure in each district consists of a District Hospital, a Rural/Cottage Hospital, a Primary Health Centre, and Sub-Centres below the Primary Health Centre. In the following, we shall examine the present levels of health services obtaining in different districts through these institutions.

Primary Health Sub-Centres:

11.12 Under the Minimum Needs Programme, the norm laid down is that there should be one Sub-Centre per 5,000 population in non-tribal areas and per 3,000 population in tribal areas. We shall examine the levels of present achievement in relation to these norms. In Table 11.5, we show the number of Sub-Centres required as per norm in the Tribal (Col.2) and Non-Tribal areas (Col.3) of each district and the number of sub-centres expected to be there by end of March 1984 (Col.4 and Col.5). In Col.6 and 7, Col.4 and 5 are expressed as percentage of Col.2 and 3 respectively, indicating percentage achievement in tribal and non-tribal areas respectively. It will be noticed that at the

State level (excluding Greater Bombay), the level of achievement is 59.36 per cent in the tribal areas and 59.64 per cent in non-tribal areas. The State level achievement in the non-tribal areas is only marginally more than the same in the tribal areas. Nevertheless, as a matter of principle, we suggest that in the first instance, the facilities in the tribal and non-tribal areas of each district should be brought to the level of State level achievement in non-tribal areas, namely, 59.64 per cent of the norm. In Table 11.5A, we show the backlog of the districts in terms of the number of additional sub-centres needed in the tribal and non-tribal areas and the initial and recurring cost of the same. The initial cost is taken to be Rs. one lakh per sub-centre, providing Rs.80,000 for building and equipment and Rs.20,000 for staff and contingency for one year. The recurring cost is taken at Rs.20,000 for staff and contingency per annum per centre. It will be seen that the total backlog on this account consists of 255 sub-centres costing Rs.2.55 crore as initial cost and Rs.51.00 lakh as recurring cost per annum.

Primary Health Centres:

11.13. It is proposed to provide one Primary Health Centre per 30,000 population in non-tribal areas and per 20,000 population in tribal/hilly/disadvantaged areas. In Table 11.6 we show the number of Primary Health Centres required in the tribal and non-tribal areas of each district as per norm (Col.2 and 3) and the number expected by the end of March 1984 (Col.4 and 5). In Col.6 and 7 the achievement in the tribal and non-tribal areas is shown as percentage of the requirement. It will be noticed that the State level achievement in the tribal areas is 70.46 per cent and in the non-tribal areas 41.32 per cent. We suggest that the backlog in the districts should be counted on the basis that the facilities in the tribal areas and non-tribal areas in different districts should reach the respective levels of State achievement, namely, 70.46 per cent in the tribal areas and 41.32 per cent in the non-tribal areas. In Table 11.6A we show the backlog in different districts in terms of additional Primary Health Centres needed in the tribal and non-tribal areas respectively. This may be achieved by upgrading some of the existing Primary Health Units/Dispensaries, the cost for which is estimated at Rs.2 lakh in initial cost for additional buildings and equipment and Rs.1 lakh for additional staff and contingency per annum per centre. It will be seen that the total backlog on this item consists of 40 Primary Health Centres costing Rs.80.00 lakh as initial cost and Rs.40.00 lakh as recurring cost per annum. Government has recently sanctioned 834 additional Primary Health Centres required as per norms (G.R.PHC 1083/3656/PH-16B dated 2-2-1984). Hence, there is no backlog left in Primary Health Centres.

Rural/Cottage Hospitals:

11.14. It is intended that, for every four Primary Health Centres, there should be one Rural/Cottage Hospital. For this purpose, either one of the established Primary Health Centres or

Table 11.5

Districtwise Position of Sub-Centres as on 31-3-1984

District	Required as		Existing		Col.(4) as Per- centage of Col. (2)	Col.(5) as Per- centage of Col. (3)
	Tribal	Non- Tribal	Tribal	Non- Tribal		
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	219	241	144	115	65.75	47.72
3. Raigad	11	315	13	131	118.18	41.59
4. Ratnagiri	-	673	-	365	-	54.23
<u>KONKAN</u>						
(excl. G.B.)	230	1,229	157	611	68.26	49.72
5. Nashik	226	281	128	199	56.64	70.82
6. Dhule	287	159	151	104	52.61	65.41
7. Jalgaon	22	388	15	232	68.18	59.79
8. Ahmednagar	64	494	38	275	59.38	55.67
9. Pune	51	445	31	295	60.78	66.29
10. Satara	-	379	-	213	-	56.20
11. Sangli	-	307	-	181	-	58.96
12. Solapur	-	358	-	233	-	65.08
13. Kolhapur	-	419	-	233	-	55.61
<u>WESTERN MAHARASHTRA</u>	650	3,230	363	1,965	55.85	60.84
14. Aurangabad	-	449	-	251	-	55.90
15. Parbhani	-	262	-	172	-	65.65
16. Beed	-	250	-	155	-	62.00
17. Nanded	58	247	38	161	65.52	65.18
18. Osmanabad	-	429	-	249	-	58.04
<u>MARATHWADA</u>	58	1,637	38	988	65.52	60.35
19. Buldhana	-	285	-	166	-	58.25
20. Akola	-	293	-	174	-	59.38
21. Amravati	53	231	38	168	71.70	72.73
22. Yavatmal	89	252	36	155	40.45	61.51
23. Wardha	-	153	-	94	-	61.44
24. Nagpur	18	216	20	125	111.11	57.87
25. Bhandara	129	275	73	202	56.59	73.45
26. Chandrapur	279	343	169	209	60.57	60.93
<u>VIDARBHA</u>	568	2,048	336	1,293	59.15	63.13
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	1,506	8,144	894	4,857	59.36	59.64

Table 11.5A

Backlog in Respect of Sub-Centres

District	Number of Sub-Centres			Initial* Cost (Rs. Lakh)	Recurring** Cost (Rs. Lakh)
	Tribal	Non-Tribal	Total		
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	28	28	28.00	5.60
3. Raigad	-	57	57	57.00	11.40
4. Ratnagiri	-	36	36	36.00	7.20
<u>KONKAN</u>					
(excl. G.B.)	-	121	121	121.00	24.20
5. Nashik	7	-	7	7.00	1.40
6. Dhule	20	-	20	20.00	4.00
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	1	20	21	21.00	4.20
9. Pune	-	-	-	-	-
10. Satara	-	13	13	13.00	2.60
11. Sangli	-	2	2	2.00	0.40
12. Solapur	-	-	-	-	-
13. Kolhapur	-	17	17	17.00	3.40
<u>WESTERN MAHARASHTRA</u>	28	52	80	80.00	16.00
14. Aurangabad	-	17	17	17.00	3.40
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	7	7	7.00	1.40
<u>MARATHWADA</u>	-	24	24	24.00	4.80
19. Buldhana	-	4	4	4.00	0.80
20. Akola	-	1	1	1.00	0.20
21. Amravati	-	-	-	-	-
22. Yavatmal	17	-	17	17.00	3.40
23. Wardha	-	-	-	-	-
24. Nagpur	-	4	4	4.00	0.80
25. Bhandara	4	-	4	4.00	0.80
26. Chandrapur	-	-	-	-	0.80
<u>VIDARBHA</u>	21	9	30	30.00	6.00
<u>MAHARASHTRA STATE</u>					
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	49	206	255	255.00	51.00

* Cost @ Rs.1 lakh per Sub-Centre.

** Cost @ Rs.20,000 per Sub-Centre.

Table 11.6

Districtwise Position of Primary Health Centres as on 31-3-1984

District	Required as		Existing		Col.(4) as Per- centage of Col. (2)	Col.(5) as Per- centage of Col. (3)
	per norm Tribal	Non- Tribal	Position Tribal	Non- Tribal		
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	45	40	21	18	46.67	45.00
3. Raigad	3	46	2	20	66.67	43.48
4. Ratnagiri	-	99	-	35	-	35.35
<u>KONKAN</u>						
(excl. G.B.)	48	185	23	73	47.92	39.46
5. Nashik	36	49	25	16	69.44	32.65
6. Dhule	42	26	31	9	73.81	34.62
7. Jalgaon	2	67	2	27	100.00	40.30
8. Ahmednagar	9	75	6	26	66.67	34.67
9. Pune	6	72	5	26	83.33	36.11
10. Satara	-	63	-	26	-	41.27
11. Sangli	-	52	-	21	-	40.38
12. Solapur	-	58	-	25	-	43.10
13. Kolhapur	-	65	-	24	-	36.92
<u>WESTERN MAHARASHTRA</u>	<u>95</u>	<u>547</u>	<u>69</u>	<u>200</u>	<u>72.63</u>	<u>36.56</u>
14. Aurangabad	-	70	-	27	-	38.57
15. Parbhani	-	44	-	22	-	50.00
16. Beed	-	41	-	17	-	41.46
17. Nanded	7	41	6	18	85.71	43.90
18. Osmanabad	-	74	-	29	-	39.19
<u>MARATHWADA</u>	<u>7</u>	<u>270</u>	<u>6</u>	<u>113</u>	<u>85.71</u>	<u>41.85</u>
19. Buldhana	-	41	-	22	-	53.66
20. Akola	-	48	-	23	-	47.92
21. Amravati	8	40	7	18	87.50	45.00
22. Yavatmal	13	40	12	20	92.31	50.00
23. Wardha	-	23	-	11	-	47.83
24. Nagpur	3	37	3	20	100.00	54.05
25. Bhandara	20	42	15	19	75.00	45.24
26. Chandrapur	43	49	32	19	74.42	38.78
<u>VIDARBHA</u>	<u>87</u>	<u>320</u>	<u>69</u>	<u>152</u>	<u>79.31</u>	<u>47.50</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
<u>(excl. G.B.)</u>	<u>237</u>	<u>1,302</u>	<u>167</u>	<u>538</u>	<u>70.46</u>	<u>41.32</u>

Table 11.6A

Backlog in Respect of Primary Health Centres

District	Number of Additional Primary Health Centre			Initial* Cost	Recurring** Cost (Rs. Lakh)
	Tribal	Non-Tribal	Total		
1	2	3	4	5	6
1.Greater Bombay	-	-	-	-	-
2.Thane	11	-	11	22.00	11.00
3.Raigad	-	-	-	-	-
4.Ratnagiri	-	6	6	12.00	6.00
<u>KONKAN</u>					
(excl. G.B.)	<u>11</u>	<u>6</u>	<u>17</u>	<u>34.00</u>	<u>17.00</u>
5.Nashik	-	4	4	8.00	4.00
6.Dhule	-	1	1	2.00	1.00
7.Jalgaon	-	1	1	2.00	1.00
8.Ahmednagar	-	5	5	10.00	5.00
9.Pune	-	4	4	8.00	4.00
10.Satara	-	-	-	-	-
11.Sangli	-	-	-	-	-
12.Solapur	-	-	-	-	-
13.Kolhapur	-	3	3	6.00	3.00
<u>WESTERN MAHARASHTRA</u>	-	<u>18</u>	<u>18</u>	<u>36.00</u>	<u>18.00</u>
14.Aurangabad	-	2	2	4.00	2.00
15.Parbhani	-	-	-	-	-
16.Beed	-	-	-	-	-
17.Nanded	-	-	-	-	-
18.Osmanabad	-	2	2	4.00	2.00
<u>MARATHWADA</u>	-	<u>4</u>	<u>4</u>	<u>8.00</u>	<u>4.00</u>
19.Buldhana	-	-	-	-	-
20.Akola	-	-	-	-	-
21.Amravati	-	-	-	-	-
22.Yavatmal	-	-	-	-	-
23.Wardha	-	-	-	-	-
24.Nagpur	-	-	-	-	-
25.Bhandara	-	-	-	-	-
26.Chandrapur	-	1	1	2.00	1.00
<u>VIDARBHA</u>	-	<u>1</u>	<u>1</u>	<u>2.00</u>	<u>1.00</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>11</u>	<u>29</u>	<u>40</u>	<u>80.00</u>	<u>40.00</u>

* Cost @ Rs.2 lakh per Centre.

** Cost @ Rs.1 lakh per Centre.

any other suitable institution is converted into a Rural/Cottage Hospital. Tables 11.6 and 11.6A together give the number of Primary Health Centres that there will be in the tribal and non-tribal areas of each district when the present backlog in this respect is removed. This number, for the tribal and non-tribal areas separately, is given in Cols.2 and 5 of Table 11.7. In Cols.3 and 6 is given the number of Rural/Cottage Hospitals expected at the end of March 1984. In Cols.4 and 7 is given the number of additional Rural/Cottage Hospitals needed to meet the norm that one-fourth of the Public Health Centres should be a Rural/Cottage Hospital. In Table 11.7A, the numbers for the tribal and non-tribal areas are added together. It will be seen that 59 additional Rural/Cottage Hospitals are needed (Col.4). In Cols.5 and 6 of the Table is shown the initial and recurring cost of the same. The initial cost is estimated at Rs.40 lakh per Rural/Cottage Hospital and the recurring cost at Rs.6 lakh per annum per Rural/Cottage Hospital. It amounts to Rs.23.60 crore in initial cost and Rs.3.54 crore in recurring cost per annum.

District Hospitals and Hospital Beds:

11.15. Each district, except some of the new districts, has a District Civil Hospital as required. However, the number of beds in all district hospitals does not meet the minimum norm of 200. We understand that the deficiency is likely to be made up very soon. In the meanwhile, we suggest the following: The District Civil Hospital is the apex institution in the district. Besides, in some districts there are hospitals attached to medical colleges which also serve as referral institutions. We suggest that, in the first instance, each district should have a minimum of 200 beds in the District Civil Hospital together with the hospital attached to a medical college, if any, in the district. In prescribing the minimum number of beds for District Hospitals, the provision of optimum number of 14 specialities, (i.e. Surgery, Obstetrics and Gynaecology, General Medicine, Paediatrics, Orthopaedics, Ophthalmology, ENT, Pathology, Radiology, Anaesthetics, Skin and V.D., Tuberculosis, Psychiatry and Dentistry); has to be kept in view. In Table 11.8, we give the details of beds in Government and Government-aided hospitals. In Col.2 is shown the number of beds in District Civil Hospitals and hospitals attached to the medical colleges. In Table 11.8A, these are shown again in Col.2. In Col.3 is shown the shortage. In working this out, we have taken into account the new districts though they are not separately shown. Thus, the shortage in Ratnagiri includes the shortage in Sindhudurg. The aggregate backlog in the State is of 1,150 beds. We suggest that this may be treated as the first priority while removing the disparities in this respect.

11.16. The second priority will be to examine the disparities in beds in all Government and Government-aided hospitals in the district after the first priority backlog is removed. In Col.4 of Table 11.8A is given the number of beds in each district as it will be after the backlog shown in Col.3 is made up. In Col.5,

Table 11.7

Position of Rural/Cottage Hospitals as on 31-3-1984, :
Tribal/Non-Tribal Areas

District	TRIBAL AREAS			NON-TRIBAL AREAS		
	Primary Health Centres	Rural/Cottage Hospitals	Backlog of Rural/Cottage Hospitals	Primary Health Centres	Rural/Cottage Hospitals	Backlog of Rural/Cottage Hospitals
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	32	8	-	18	3	2
3. Raigad	2	-	1	20	5	-
4. Ratnagiri	-	-	-	41	9	1
KONKAN						
(excl. G.B.)	<u>34</u>	<u>8</u>	<u>1</u>	<u>79</u>	<u>17</u>	<u>3</u>
5. Nashik	25	4	2	20	3	2
6. Dhule	31	5	3	10	2	1
7. Jalgaon	2	-	1	28	5	2
8. Ahmednagar	6	1	1	31	3	5
9. Pune	5	-	1	30	7	1
10. Satara	-	-	-	26	6	1
11. Sangli	-	-	-	21	4	1
12. Solapur	-	-	-	25	4	2
13. Kolhapur	-	-	-	27	5	2
WESTERN MAHARASHTRA	<u>69</u>	<u>10</u>	<u>8</u>	<u>218</u>	<u>39</u>	<u>17</u>
14. Aurangabad	-	-	-	29	6	1
15. Parbhani	-	-	-	22	3	3
16. Beed	-	-	-	17	2	2
17. Nanded	6	1	1	18	4	1
18. Osmanabad	-	-	-	31	5	3
MARATHWADA	<u>6</u>	<u>1</u>	<u>1</u>	<u>117</u>	<u>20</u>	<u>10</u>
19. Buldhana	-	-	-	22	5	1
20. Akola	-	-	-	23	4	2
21. Amravati	7	1	1	18	4	1
22. Yavatmal	12	2	1	20	4	1
23. Wardha	-	-	-	11	4	-
24. Nagpur	3	1	-	20	4	1
25. Bhandara	15	1	3	19	5	-
26. Chandrapur	32	2	6	20	3	2
VIDARBHA	<u>69</u>	<u>7</u>	<u>11</u>	<u>153</u>	<u>33</u>	<u>8</u>
MAHARASHTRA STATE						
MAHARASHTRA STATE						
(excl. G.B.)	<u>178</u>	<u>26</u>	<u>21</u>	<u>567</u>	<u>109</u>	<u>38</u>

Position of Rural/Cottage Hospitals as on 31-3-1984

District	Primary Health Centres	Rural/Cottage Hospitals	Backlog of Rural/Cottage Hospitals	Initial* Cost (Rs. Lakh)	Recurring** Cost
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	50	11	2	80.00	12.00
3. Raigad	22	5	1	40.00	6.00
4. Ratnagiri	41	9	1	40.00	6.00
<u>KONKAN</u>					
(excl. G.B.)	<u>113</u>	<u>25</u>	<u>4</u>	<u>160.00</u>	<u>24.00</u>
5. Nashik	45	7	4	160.00	24.00
6. Dhule	41	7	4	160.00	24.00
7. Jalgaon	30	5	3	120.00	18.00
8. Ahmednagar	37	4	6	240.00	36.00
9. Pune	35	7	2	80.00	12.00
10. Satara	26	6	1	40.00	6.00
11. Sangli	21	4	1	40.00	6.00
12. Solapur	25	4	2	80.00	12.00
13. Kolhapur	27	5	2	80.00	12.00
<u>WESTERN MAHARASHTRA</u>	<u>287</u>	<u>49</u>	<u>25</u>	<u>1,000.00</u>	<u>150.00</u>
14. Aurangabad	29	6	1	40.00	6.00
15. Parbhani	22	3	3	120.00	18.00
16. Beed	17	2	2	80.00	12.00
17. Nanded	24	5	2	80.00	12.00
18. Osmanabad	31	5	3	120.00	18.00
<u>MARATHWADA</u>	<u>123</u>	<u>21</u>	<u>11</u>	<u>440.00</u>	<u>66.00</u>
19. Buldhana	22	5	1	40.00	6.00
20. Akola	23	4	2	80.00	12.00
21. Amravati	25	5	2	80.00	12.00
22. Yavatmal	32	6	2	80.00	12.00
23. Wardha	11	4	-	-	-
24. Nagpur	23	5	1	40.00	6.00
25. Bhandara	34	6	3	120.00	18.00
26. Chandrapur	52	5	8	320.00	48.00
<u>VIDARBHA</u>	<u>222</u>	<u>40</u>	<u>19</u>	<u>760.00</u>	<u>114.00</u>
<u>MAHARASHTRA STATE</u>					
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	<u>745</u>	<u>135</u>	<u>59</u>	<u>2,360.00</u>	<u>354.00</u>

* Cost @ Rs.40 lakh per Rural/Cottage Hospital.

** Cost @ Rs.6 lakh per Rural/Cottage Hospital.

Table 11.8

Number of Beds in Government and Government-aided Hospitals in 1981

District	District Civil Hospital/ Medical College Hospitals	Other Government Hospitals	Corporat- tions/ Municipal Hospitals	Rural/ Cottage Hospit- als	PHC/ PHU	Other Govern- ment- aided Hospitals	Total Number of Beds
1	2	3	4	5	6	7	8
1. Greater Bombay	2,669	5,644	8,935	-	-	3,396	20,644
2. Thane	310	3,954	111	180	387	111	5,053
3. Raigad	200	221	51	90	278	237	1,077
4. Ratnagiri	120	524	28	180	402	190	1,444
<u>KONKAN</u>							
(excl. G.B.)	630	4,699	190	450	1,067	538	7,574
5. Nashik	350	631	42	120	593	335	2,071
6. Dhule	182	163	-	90	311	276	1,022
7. Jalgaon	212	280	147	60	353	193	1,245
8. Ahmednagar	156	128	166	30	361	1,042	1,883
9. Pune	1,680	5,098	533	150	694	1,112	9,267
10. Satara	135	76	43	120	286	656	1,316
11. Sangli	380	36	30	90	325	975	1,836
12. Solapur	988	185	235	60	522	804	2,794
13. Kolhapur	331	285	278	120	224	112	1,350
<u>WESTERN MAHARASHTRA</u>	<u>4,414</u>	<u>6,882</u>	<u>1,474</u>	<u>840</u>	<u>3,669</u>	<u>5,505</u>	<u>22,784</u>
14. Aurangabad	920	254	-	150	310	160	1,794
15. Parbhani	216	36	-	60	308	-	620
16. Beed	510	156	-	30	216	-	912
17. Nanded	248	240	4	90	244	-	826
18. Osmanabad	180	56	40	120	308	-	704
<u>MARATHWADA</u>	<u>2,074</u>	<u>742</u>	<u>44</u>	<u>450</u>	<u>1,386</u>	<u>160</u>	<u>4,856</u>
19. Buldhana	110	349	71	120	113	10	773
20. Akola	470	347	133	90	170	255	1,465
21. Amravati	303	312	135	120	315	1,681	2,866
22. Yavatmal	252	235	53	90	268	205	1,103
23. Wardha	167	-	62	90	301	968	1,688
24. Nagpur	1,671	2,493	136	120	198	760	5,378
25. Bhandara	348	315	-	60	310	-	1,033
26. Chandrapur	260	191	17	150	232	371	1,221
<u>VIDARBHA</u>	<u>3,581</u>	<u>4,242</u>	<u>607</u>	<u>840</u>	<u>1,907</u>	<u>4,250</u>	<u>15,527</u>
<u>MAHARASHTRA STATE</u>	<u>13,368</u>	<u>22,209</u>	<u>11,250</u>	<u>2,580</u>	<u>8,029</u>	<u>13,849</u>	<u>71,385</u>
<u>(excl. G.B.)</u>	<u>10,699</u>	<u>16,565</u>	<u>2,315</u>	<u>2,580</u>	<u>8,029</u>	<u>10,453</u>	<u>50,741</u>

Table 11.8A

Backlog of Hospital Beds in Government and Government-Aided Hospitals

District	District Civil Hospitals/Medical College Hospitals		All Government and Government Aided Hospitals			Cost of Total Backlog	
	Existing Beds	Backlog	Total Number of Beds after meeting of Col. (3)	Number of Beds per lakh of population	Backlog	Initial Cost @ Rs.1.5 lakh per bed (Rs. Lakh)	Recurring Cost @ Rs.0.20 lakh per bed (Rs. Lakh)
1	2	3	4	5	6	7	8
1. Greater Bombay	2,669	-	20,644	250.43	-	-	-
2. Thane	310	-	5,053	150.77	-	-	-
3. Raigad	200	-	1,077	72.45	143	214.50	28.60
4. Ratnagiri	120	280	1,724	81.66	9	433.50	57.80
KONKAN							
(excl. G.B.)	630	280	7,854	113.02	152	648.00	86.40
5. Nashik	350	-	2,071	69.22	384	576.00	76.80
6. Dhule	182	18	1,040	50.72	643	991.50	132.20
7. Jalgaon	212	-	1,245	47.55	904	1,356.00	180.80
8. Ahmednagar	156	44	1,927	71.15	296	510.00	68.80
9. Pune	1,680	-	9,267	222.53	-	-	-
10. Satara	135	65	1,381	67.74	292	535.50	71.40
11. Sangli	380	-	1,836	100.26	-	-	-
12. Solapur	988	-	2,794	107.04	-	-	-
13. Kolhapur	331	-	1,350	53.86	707	1,060.50	141.40
WESTERN MAHARASHTRA	4,414	127	22,911	97.41	3,226	5,029.50	670.60
14. Aurangabad	920	200	1,994	81.94	3	304.50	40.60
15. Parbhani	216	-	620	33.89	881	1,321.50	176.20
16. Beed	510	-	912	61.37	308	462.00	61.60
17. Nanded	248	-	826	47.22	610	915.00	122.00
18. Osmanabad	180	220	924	41.42	907	1,690.50	225.40
MARATHWADA	2,074	420	5,276	54.23	2,709	4,693.50	625.80
19. Buldhana	110	90	863	57.20	375	697.50	93.00
20. Akola	470	-	1,465	80.19	34	51.00	6.80
21. Amravati	303	-	2,866	153.97	-	-	-
22. Yavatmal	252	-	1,103	63.48	323	484.50	64.60
23. Wardha	167	33	1,721	185.73	-	49.50	6.60
24. Nagpur	1,671	-	5,378	207.74	-	-	-
25. Bhandara	348	-	1,033	56.22	475	712.50	95.00
26. Chandrapur	260	200	1,421	69.13	266	699.00	93.20
VIDARBHA	3,581	323	15,850	110.51	1,473	2,694.00	359.20
MAHARASHTRA STATE	13,368	1,150	72,355	115.53			
(excl. G.B.)	10,699	1,150	51,891	95.14			
MAHARASHTRA STATE							
(excl. Medical College Hospital Beds)	3,569	1,150	62,736	99.20	7,560	13,065.00	1,742.00
MAHARASHTRA STATE							
(excl. G.B. and Medical College Hospital Beds)	3,569	1,150	44,761	82.07	7,560	13,065.00	1,742.00

the same is shown per lakh of population. The average for the State (excluding Greater Bombay) is 95.14 beds per lakh population. These include the medical college hospital beds which are available only in a few districts. Their number is related to the number of medical college students. It does not appear appropriate to include these beds in the State average and assess the district backlog therefrom. The State average excluding these beds comes to 82.07 beds per lakh population. This is shown in the bottom line of the Table. We shall assess the backlog of districts from this State average. But, in doing this, we shall of course not exclude the medical college hospital beds from the respective districts. In Col.6 of the Table is shown this backlog. In the aggregate it adds up to 7,560 beds. This constitutes the second priority backlog. In Col.7, we show the initial cost of the total backlog in beds (first plus second priority) estimated at the rate of Rs.1.5 lakh per bed. In the aggregate it amounts to Rs.130.65 crore. In Col.8 is shown the recurring cost of the total backlog in beds estimated at the rate of Rs.20,000/- per bed per annum. In the aggregate it amounts to Rs.17.42 crore per annum.

Aggregate Backlog in Health Care Institutions:

11.17. In Tables 11.9 and 11.9A, we bring together the backlog in each district in the matter of health care institutions, namely, Public Health Sub-Centres, Primary Health Centres, Rural/Cottage Hospitals, and hospital beds. In Table 11.9 is given the initial cost of setting up the additional institutions. In Table 11.9A, is given the recurring cost of maintaining the new institutions. It will be noted these add up to Rs.156.80 crore in initial cost and Rs.21.47 crore in recurring cost.

Staff Vacancies & Deficiencies:

11.18. The backlog in recurring expenditure as above estimated amounting to Rs.21.47 crore takes into account expenditure of only additional institutions needed to bring all districts to the prescribed norms. It does not take into account deficiencies, particularly staff deficiencies, in the existing institutions. These are large.

11.19. To illustrate, we give in Table 11.10, vacancies as on 31-12-1983 against sanctioned posts of Class I, II, and III Medical Officers. In Table 11.11, we give, for other medical personnel, sanctioned posts as on 31-12-1983 as percentage of the number required as per norms. The personnel taken into account and the prescribed norms are as follows: (1) Female Health Assistants: (i) One for every 4 Sub-Centres; (ii) One for every Primary Health Centre; and (iii) Ten for every Rural/Cottage Hospital. (2) Male Health Assistants: (i) One for every four workers; (ii) One for every Primary Health Centre; (3) Multi-Purpose Female Workers: (i) One for 5,000 population in non-tribal area; (ii) One for 3,000 tribal, hilly and disadvantaged area; (iii) One for every Primary Health Centre;

Table 11.9

Initial Cost of Backlog in Health Care Services
(Rs. Lakh)

District	Sub-Centres	Rural/Cottage Hospitals	Hospital Beds	Total Cost
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	28.00	80.00	-	108.00
3. Raigad	57.00	40.00	214.50	311.50
4. Ratnagiri	36.00	40.00	433.50	509.50
<u>KONKAN</u>				
(excl. G.B.)	121.00	160.00	648.00	929.00
5. Nashik	7.00	160.00	576.00	743.00
6. Dhule	20.00	160.00	991.50	1,171.50
7. Jalgaon	-	120.00	1,356.00	1,476.00
8. Ahmednagar	21.00	240.00	510.00	771.00
9. Pune	-	80.00	-	80.00
10. Satara	13.00	40.00	535.50	588.50
11. Sangli	2.00	40.00	-	42.00
12. Solapur	-	80.00	-	80.00
13. Kolhapur	17.00	80.00	1,060.50	1,157.50
<u>WESTERN MAHARASHTRA</u>	80.00	1,000.00	5,029.50	6,109.50
14. Aurangabad	17.00	40.00	304.50	361.50
15. Parbhani	-	120.00	1,321.50	1,441.50
16. Beed	-	80.00	462.00	542.00
17. Nanded	-	80.00	915.00	995.00
18. Osmanabad	7.00	120.00	1,690.50	1,817.50
<u>MARATHWADA</u>	24.00	440.00	4,693.50	5,157.50
19. Buldhana	4.00	40.00	697.50	741.50
20. Akola	1.00	80.00	51.00	132.00
21. Amravati	-	80.00	-	80.00
22. Yavatmal	17.00	80.00	484.50	581.50
23. Wardha	-	-	49.50	49.50
24. Nagpur	4.00	40.00	-	44.00
25. Bhandara	4.00	120.00	712.50	836.50
26. Chandrapur	-	320.00	699.00	1,019.00
<u>VIDARBHA</u>	30.00	760.00	2,694.00	3,484.00
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	255.00	2,360.00	13,065.00	15,680.00

Table 11.9A

Recurring Cost of Backlog in Health Services

(Rs. Lakh)

District	Sub-Centres	Rural/ Cottage Hospitals	Hospital Beds	Total
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	5.60	12.00	-	17.60
3. Raigad	11.40	6.00	28.60	46.00
4. Ratnagiri	7.20	6.00	57.80	71.00
<u>KONKAN</u>				
(excl. G.B.)	<u>24.20</u>	<u>24.00</u>	<u>86.40</u>	<u>134.60</u>
5. Nashik	1.40	24.00	76.80	102.20
6. Dhule	4.00	24.00	132.20	160.20
7. Jalgaon	-	18.00	180.80	198.80
8. Ahmednagar	4.20	36.00	68.00	108.20
9. Pune	-	12.00	-	12.00
10. Satara	2.60	6.00	71.40	80.00
11. Sangli	0.40	6.00	-	6.40
12. Solapur	-	12.00	-	12.00
13. Kolhapur	3.40	12.00	141.40	156.80
<u>WESTERN MAHARASHTRA</u>	<u>16.00</u>	<u>150.00</u>	<u>670.60</u>	<u>836.60</u>
14. Aurangabad	3.40	6.00	40.60	50.00
15. Parbhani	-	18.00	176.20	194.20
16. Beed	-	12.00	61.60	73.60
17. Nanded	-	12.00	122.00	134.00
18. Osmanabad	1.40	18.00	225.40	244.80
<u>MARATHWADA</u>	<u>4.80</u>	<u>66.00</u>	<u>625.80</u>	<u>696.60</u>
19. Buldhana	0.80	6.00	93.00	99.80
20. Akola	0.20	12.00	6.80	19.00
21. Amravati	-	12.00	-	12.00
22. Yavatmal	3.40	12.00	64.60	80.00
23. Wardha	-	-	6.60	6.60
24. Nagpur	0.80	6.00	-	6.80
25. Bhandara	0.80	18.00	95.00	113.80
26. Chandrapur	-	48.00	93.20	141.20
<u>VIDARBHA</u>	<u>6.00</u>	<u>114.00</u>	<u>359.20</u>	<u>479.20</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>51.00</u>	<u>354.00</u>	<u>1,742.00</u>	<u>2,147.00</u>

Table 11.10

Posts Sanctioned and Vacancy Position of Medical Officers
as on 1-10-1983.

District	Class I Medical Officers		Class II Medical Officers		Class III Medical Officers	
	Posts Sanctioned	Vacancies	Posts Sanctioned	Vacancies	Posts Sanctioned	Vacancies
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	9	4	178	12	6	1
3. Raigad	5	2	110	24	23	6
4. Ratnagiri	7	5	154	21	40	7
<u>KONKAN</u>						
(excl. G.B.)	<u>21</u>	<u>11</u>	<u>442</u>	<u>57</u>	<u>69</u>	<u>14</u>
5. Nashik	3	1	148	30	31	2
6. Dhule	5	3	135	43	30	-
7. Jalgaon	4	1	112	20	21	6
8. Ahmednagar	4	1	124	16	17	3
9. Pune	4	2	187	10	31	3
10. Satara	5	3	121	10	32	6
11. Sangli	5	2	90	5	12	1
12. Solapur	4	2	116	5	20	-
13. Kolhapur	9	7	131	10	73	-
<u>WESTERN MAHARASHTRA</u>	<u>43</u>	<u>22</u>	<u>1,164</u>	<u>149</u>	<u>267</u>	<u>21</u>
14. Aurangabad	6	1	166	9	35	6
15. Parbhani	5	1	106	11	29	1
16. Beed	3	-	102	8	22	1
17. Nanded	5	1	122	9	67	9
18. Osmanabad	8	4	154	12	20	6
<u>MARATHWADA</u>	<u>27</u>	<u>7</u>	<u>650</u>	<u>49</u>	<u>173</u>	<u>23</u>
19. Buldhana	6	3	107	9	82	7
20. Akola	6	3	128	10	350	12
21. Amravati	9	6	119	6	65	3
22. Yavatmal	6	4	133	13	66	16
23. Wardha	4	2	65	8	42	8
24. Nagpur	4	3	210	14	85	11
25. Bhandara	5	2	153	20	109	5
26. Chandrapur	4	1	163	24	87	13
<u>VIDARBHA</u>	<u>44</u>	<u>24</u>	<u>1,078</u>	<u>104</u>	<u>886</u>	<u>75</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>135</u>	<u>64</u>	<u>3,334</u>	<u>359</u>	<u>1,395</u>	<u>133</u>

Table 11.11

Sanctioned Posts as Percentage to Required Norms as on 1-4-1984

District	Health Assistants, Female	Health Assistants, Male	Multi-Purpose Workers, Female	Multi-Purpose Workers, Male	Compounders and Pharmacists	Laboratory Technician	X-Ray Technician
1	2	3	4	5	6	7	8
1. Greater Bombay	-	-	-	-	-	-	-
2. Thane	18.46	71.00	60.00	81.09	40.85	31.45	63.16
3. Raigad	26.80	79.23	83.21	67.18	60.00	24.62	41.67
4. Ratnagiri	23.60	56.55	51.04	55.87	26.44	22.66	36.00
<u>KONKAN</u>							
<u>(excl. G.B.)</u>	<u>22.56</u>	<u>66.33</u>	<u>59.65</u>	<u>66.35</u>	<u>38.65</u>	<u>26.50</u>	<u>46.43</u>
5. Nashik	24.88	65.32	62.50	70.02	42.96	23.42	31.58
6. Dhule	29.12	87.22	57.26	73.32	0.00	26.88	43.75
7. Jalgaon	19.66	89.47	60.75	107.80	30.89	22.47	27.78
8. Ahmednagar	19.39	80.72	58.72	73.48	27.78	20.00	20.00
9. Pune	47.19	80.20	64.63	87.90	37.04	30.36	36.84
10. Satara	23.70	78.48	62.67	89.45	48.15	25.00	40.00
11. Sangli	19.28	71.32	56.55	71.99	32.95	24.64	36.84
12. Solapur	16.32	94.59	66.35	109.50	24.00	23.68	28.57
13. Kolhapur	20.28	60.00	59.71	55.61	52.21	23.53	31.25
<u>WESTERN MAHARASHTRA</u>	<u>25.16</u>	<u>78.29</u>	<u>62.04</u>	<u>81.31</u>	<u>33.02</u>	<u>24.51</u>	<u>32.21</u>
14. Aurangabad	20.17	77.47	57.80	63.92	57.89	29.29	33.33
15. Parbhani	40.27	95.45	68.55	79.77	81.82	22.81	27.27
16. Beed	20.59	83.65	62.54	84.00	40.85	22.64	20.00
17. Nanded	29.91	100.00	62.32	93.44	109.88	28.36	45.45
18. Osmanabad	20.82	76.80	65.41	89.51	49.18	21.28	31.25
<u>MARATHWADA</u>	<u>25.38</u>	<u>85.02</u>	<u>63.54</u>	<u>81.12</u>	<u>64.63</u>	<u>25.14</u>	<u>28.79</u>
19. Buldhana	23.94	80.36	61.35	97.54	109.86	32.79	50.00
20. Akola	17.01	66.94	59.82	81.57	214.29	34.85	33.33
21. Amravati	20.08	71.43	65.66	71.48	0.00	27.27	41.67
22. Yavatmal	20.15	71.74	57.11	97.10	31.52	27.39	46.15
23. Wardha	15.32	77.05	65.91	58.17	0.00	36.11	80.00
24. Nagpur	48.24	67.68	61.68	85.47	92.86	43.66	50.00
25. Bhandara	23.96	59.51	68.45	66.09	54.21	22.50	40.00
26. Chandrapur	20.55	65.18	64.72	52.57	37.14	17.88	21.74
<u>VIDARBHA</u>	<u>24.84</u>	<u>68.58</u>	<u>63.29</u>	<u>73.01</u>	<u>67.25</u>	<u>28.60</u>	<u>40.00</u>
<u>MAHARASHTRA STATE</u>							
<u>MAHARASHTRA STATE</u>							
<u>(excl. G.B.)</u>	<u>24.74</u>	<u>74.97</u>	<u>63.17</u>	<u>76.01</u>	<u>48.52</u>	<u>26.05</u>	<u>36.39</u>

Table 11.12

Medical Education in Different Institutions/Training : Number of Seats

District	Medical Colleges	Nursing Schools	Lady Health Visitors/ Health Visitors	ANM Training Institutes	Promotional Training Courses for ANMs
1	2	3	4	5	6
1. Greater Bombay	560	827	-	-	30
2. Thane	-	80	30	75	-
3. Raigad	-	-	-	50	-
4. Ratnagiri	-	-	-	50	-
<u>KONKAN</u> (excl. G.B.)	-	80	30	175	-
5. Nashik	-	99	50	85	-
6. Dhule	-	85	50	60	-
7. Jalgaon	-	59	24	55	-
8. Ahmednagar	-	58	30	58	-
9. Pune	320	399	-	60	-
10. Satara	-	60	30	40	-
11. Sangli	100	60	-	30	-
12. Solapur	100	112	-	-	-
13. Kolhapur	-	138	80	75	-
<u>WESTERN MAHARASHTRA</u>	<u>520</u>	<u>1,070</u>	<u>264</u>	<u>463</u>	-
14. Aurangabad	100	257	-	-	-
15. Parbhani	-	-	-	65	-
16. Beed	50	35	-	50	-
17. Nanded	-	-	-	25	35
18. Osmanabad	-	-	-	95	-
<u>MARATHWADA</u>	<u>150</u>	<u>292</u>	-	<u>235</u>	<u>35</u>
19. Buldhana	-	-	-	50	-
20. Akola	-	99	99	75	35
21. Amravati	-	135	135	85	-
22. Yavatmal	-	-	-	50	-
23. Wardha	60	-	-	50	-
24. Nagpur	260	633	-	65	40
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	40	20	30	-
<u>VIDARBHA</u>	<u>320</u>	<u>907</u>	<u>254</u>	<u>405</u>	<u>75</u>
<u>MAHARASHTRA STATE</u>	<u>1,550</u>	<u>3,176</u>	<u>548</u>	<u>1,278</u>	<u>140</u>
<u>MAHARASHTRA STATE</u> (excl. G.B.)	<u>990</u>	<u>2,349</u>	<u>548</u>	<u>1,278</u>	<u>110</u>

(4) Multi-Purpose Male Workers: (i) One for 5,000 population in non-tribal area; (ii) One for 3,000 population in tribal, hilly, and disadvantageous area; (5) Compounders/Pharmacists: (i) Three for every Rural/Cottage Hospital; (ii) One for every Primary Health Centre; (6) Laboratory Technicians: (i) One for every Primary Health Centre; (ii) One for each Rural/Cottage Hospital; (7) X-Ray Technicians: One for every Rural/Cottage Hospital. It will be seen that there are considerable disparities between the districts in respect of vacancies against sanctioned posts of Class I, II, and III Medical Officers, and sanctioned posts of other personnel against norms. Though we have not specifically taken into account such staff deficiencies, while estimating the backlog in health care services, needless to say these will have to be examined and removed.

Seats in Medical Education/Training Institutes:

11.20. Finally, we give in Table 11.12, number of seats available in Medical Colleges, Nursing Schools, and other training institutes located in different districts. We recommend that wherever these seats may be located, they should be allocated to different regions in proportion to their population.

CHAPTER XII

WATER SUPPLY

12.1. According to the 1981 Population Census, the population of Maharashtra was 627.84 lakh comprising 219.94 lakh urban and 407.91 lakh rural population. The Administrative Department for rural water supply is the Rural Development Department (RDD), while that for the urban water supply is the Urban Development Department (UDD). The implementation agency for the programme of dug wells, and rural piped water supply schemes costing upto Rs. 3.00 lakh is the Zilla Parishads, under the administrative control of the RDD. The Ground-water Survey and Development Agency (GSDA) is responsible for implementing the bore wells programme. It is subordinate to the RDD. The programme of rural piped water supply for schemes costing more than Rs.3.00 lakh and all the urban piped water supply schemes is implemented through the Maharashtra Water Supply and Sewerage Board (MWS&S Board) except in cases where the municipal corporations are specifically executing these programmes. The MWS&S Board is under the administrative control of the UDD. It functions as the agency for the RDD in respect of the rural piped water supply programme. We shall first examine the position of rural water supply.

Rural Water Supply:

12.2. As at present, the objective of the rural water supply schemes is to provide a minimum supply of water to villages where the present supply is inadequate or otherwise unsatisfactory. The State Government decided that, as part of the Minimum Needs Programme, all such villages would be covered during the Sixth Plan period (1980-85). As a preliminary, during 1978-80, a survey was carried out, through the agency of the Zilla Parishads, to identify what might be called 'difficult' or 'problem' villages in the matter of drinking water supply. As on 1.4.1980, out of a total of 35,778 villages as per 1971 Census, 17,112 villages were identified as 'problem' villages.

12.3. For purposes of drinking water supply, the Government of India defined 'problem' villages as (i) villages which do not have a source of drinking water within a distance of one mile (1.6 k.m.); (ii) villages of which the sources of drinking water have excessive chemicals like chlorides, iron, fluorides, etc., or are infested with guineaworm and (iii) cholera endemic villages. As judged by these norms, 12,935 villages (out of a total of 35,778 revenue villages as per 1971 Census) were identified as 'problem' villages. The Government of Maharashtra suggested somewhat liberal norms and defined 'problem' villages as: (i) villages with no public source of drinking water or where the public source is 3 furlongs (0.6 km) or more away from the villages or where water is not available at

a depth of less than 50 feet; or where the public source needs major repair, improvement, extension, etc., or where the public source is a step well which needs to be converted into a draw well; (ii) villages where the public source has inadequate quantum of water, and/or may dry up in summer; (iii) villages located in saline/sandy/hilly tract where wells do not have potable water; and (iv) villages located in cholera endemic area or guineaworm affected area. On the basis of these norms, 4,177 additional villages were identified as 'problem' villages bringing the total of 'problem' villages to 17,112. For most of these villages, it was considered that the problem of drinking water could be solved by means of a dug well or a bore well. However, in the case of 4,359 villages, the problem could be solved only by means of piped water supply.

12.4. In Table 12.1, we give the number of 'problem' villages so identified in different districts. In the State, 47.83 per cent of all villages were identified as 'problem' villages. Regionwise the percentage of 'problem' villages is 65.38 in Western Maharashtra, 57.38 in Konkan, 46.61 in Marathwada and 30.11 in Vidarbha. Districtwise, it varies from a maximum of 90.91 per cent in Sangli to a minimum of 22.77 per cent in Nagpur.

12.5. We shall consider the two groups of 'problem' villages separately; namely, (i) the 12,753 villages in which the problem could be solved by means of a dug well or a bore well, and (ii) the 4,359 villages in which the problem could be solved only by means of piped water supply. We shall not distinguish cases of dug well and bore well as the per capita costs in the two cases are not very different. On the other hand, we shall distinguish the cases of piped water supply because the per capita costs in this case are two to three times as much as those in the case of a dug or a bore well. We shall first consider the cases with dug or bore well.

12.6. As already mentioned, as on 1.4.1980, there were 12,753 villages in this category. During the three years 1980-81, 1981-82, and 1982-83, 5,786 of these were provided with a dug/bore well and their drinking water problem was solved, at least at the minimum level envisaged in the present programme. Their districtwise number is given in col.2 of Table 12.2. In col.3 is shown the total expenditure incurred. In col.4, the expenditure is shown per village.

12.7. We think it would be more appropriate to judge the achievement and the backlog in this programme by relating the number of villages in which the problem was solved (5,786) to the number of 'problem' villages in this category (12,753) rather than relating it to the number of all 'problem' villages or to all villages in the district. Hence, in col.5 of the Table, we show the number of 'problem' villages provided with a dug/bore well (given in col.2) as percentage of all 'problem' villages of this category (given in col.3 of Table 12.1). It will be seen

Table 12.1

Rural Water Supply: Number of Problem Villages

District	No. of Revenue Villages (1981 Census)	No. of Problem Villages as on March 31, 1980			Percentage of Problem Villages to Revenue Villages
		Needing Dug/Bore Wells	Needing Piped Water Supply	Total	
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	1,588	838	245	1,083	68.20
3. Raigad	1,699	803	194	997	58.68
4. Ratnagiri	1,514	434	241	675	44.58
<u>KONKAN</u>					
(excl. G.B.)	4,801	2,075	680	2,755	57.38
5. Nashik	1,628	717	189	906	55.65
6. Dhule	1,379	423	196	619	44.89
7. Jalgaon	1,423	363	280	643	45.15
8. Ahmednagar	1,312	583	223	806	61.43
9. Pune	1,481	537	270	807	54.49
10. Satara	1,142	602	299	901	78.90
11. Sangli	539	227	263	490	90.91
12. Solapur	948	993	233	1,226(?)	129.32(?)
13. Kolhapur	1,083	485	266	751	69.34
<u>WESTERN MAHARASHTRA</u>	<u>10,935</u>	<u>4,930</u>	<u>2,219</u>	<u>7,149</u>	<u>65.38</u>
14. Aurangabad	1,866	544	188	732	39.23
15. Parbhani	1,505	374	116	490	32.56
16. Beed	1,028	407	112	519	50.49
17. Nanded	1,324	472	141	613	46.30
18. Osmanabad	1,387	688	272	960	69.21
<u>MARATHWADA</u>	<u>7,110</u>	<u>2,485</u>	<u>829</u>	<u>3,314</u>	<u>46.61</u>
19. Buldhana	1,232	236	168	404	32.79
20. Akola	1,489	319	96	415	27.87
21. Amravati	1,637	436	64	500	30.54
22. Yavatmal	1,647	631	67	698	42.38
23. Wardha	962	299	20(?)	319	33.16
24. Nagpur	1,625	317	53	370	22.77
25. Bhandara	1,500	294	61	355	23.67
26. Chandrapur	2,840	731	102	833	29.33
<u>VIDARBHA</u>	<u>12,932</u>	<u>3,263</u>	<u>631</u>	<u>3,894</u>	<u>30.11</u>
<u>MAHARASHTRA STATE</u>	<u>35,778</u>	<u>12,753</u>	<u>4,359</u>	<u>17,112</u>	<u>47.83</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	35,778	12,753	4,359	17,112	47.83

(?) Needs checking.

Table 12.2

Bore/Dug Wells in Problem Villages

District	Number of Problem Villages Supplied with Bore or Dug Wells between 1980 and 1983	Expenditure Incurred (Rs. Lakh)	Expenditure Per Village (Rs. Lakh)	Percentage of Problem Villages Supplied with Bore/Dug Wells	Backlog	Cost (Rs. Lakh)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	182	217.96	1.20	21.72	198	237.60
3. Raigad	233	217.00	0.93	29.02	131	121.83
4. Ratnagiri	62	177.22	2.86	14.29	135	386.10
KONKAN						
(excl. G.B.)	477	612.18	1.28	22.99	464	745.53
5. Nashik	344	281.78	0.82	47.98	-	-
6. Dhule	255	215.14	0.84	60.28	-	-
7. Jalgaon	366	234.91	0.64	100.83(?)	-	-
8. Ahmednagar	175	329.90	1.89	30.02	90	170.10
9. Pune	213	271.92	1.28	39.66	31	39.68
10. Satara	221	248.06	1.12	35.65	52	58.24
11. Sangli	116	326.97	2.04	51.10	-	-
12. Solapur	383	427.36	1.12	38.57	68	76.16
13. Kolhapur	193	169.51	0.88	39.79	27	23.76
WESTERN MAHARASHTRA	2,266	2,415.55	1.07	45.96	268	367.94
14. Aurangabad	268	340.91	1.27	49.26	-	-
15. Parbhani	215	178.86	0.83	57.49	-	-
16. Beed	225	244.03	1.08	55.28	-	-
17. Nanded	226	195.37	0.86	47.88	-	-
18. Osmanabad	340	351.52	1.03	49.42	-	-
MARATHWADA	1,274	1,310.69	1.03	51.27	-	-
19. Buldhana	165	210.75	1.28	69.92	-	-
20. Akola	151	175.22	1.16	47.34	-	-
21. Amravati	273	262.00	0.96	62.61	-	-
22. Yavatmal	305	262.30	0.86	48.34	-	-
23. Wardha	116	113.07	0.97	38.80	20	19.40
24. Nagpur	167	365.57	2.19	52.68	-	-
25. Bhandara	152	260.67	1.71	51.70	-	-
26. Chandrapur	440	502.95	1.14	60.19	-	-
VIDARBHA	1,769	2,152.53	1.22	54.21	20	19.40
MAHARASHTRA STATE						
MAHARASHTRA STATE						
(excl. G.B.)	5,786	6,490.95	1.12	45.37	752	1,132.87

(?) Needs checking.

that taking the State as a whole, the percentage works out to 45.37. We suggest that the district backlog in this matter should be assessed on the basis of additional number of 'problem' villages in each district which need be provided with an adequate dug/bore well in order to bring the percentage in the lagging districts to the State Average of 45.37. The number is given in col.6. In col.7 is given the cost of this backlog on the basis of per village cost shown in col.4. It adds upto Rs.11.33 crore.

Rural Piped Water Supply:

12.8. We may next turn to the second category of the 'problem' villages, namely, where the problem could be solved only by means of piped water supply. As already mentioned, as on 1.4.1980, there were 4,359 villages in this category. In this case, we know their 1971 population. In cols.2 and 3 of Table 12.3, we give their number and population in each district. During the three years 1980-81, 1981-82 and 1982-83, 1,462 of these villages were supplied with piped water. Their number and population in each district is shown in cols.4 and 5. In col.6 is shown the total expenditure incurred on these schemes. In col.7 is shown the per capita cost.

12.9. We think it would be more appropriate to judge the achievement and the backlog in this programme by relating the population of the villages supplied with piped water to the population of all 'problem' villages in this category. In col.2 of Table 12.3A the former is expressed as percentage of the latter. It will be seen that taking the State as a whole, the percentage works out to 41.51. We suggest that the district backlog in this matter should be assessed on the basis of additional population in each district, which need be supplied piped water in order to bring the percentage in the lagging districts to the State Average of 41.51. This is shown in col.3 of the Table. In col.4 is shown the cost estimated on the basis of per capita cost in each district shown in col.7 of Table 12.3. Finally, we bring from col.7 of Table 12.2 the cost of backlog in the matter of water supply by dug/bore well. This is added to the cost of backlog in the matter of piped water supply (col.4). Thus, col.5 gives the total cost of backlog in rural water supply as on 1.4.1983, amounting to Rs.43.78 crore.

12.10. When, at the end of the current programme, the problem of drinking water in all the 17,112 'problem' villages is resolved either by means of a dug/bore well or piped water supply, the programme of rural water supply will be naturally geared to higher objectives such as providing all villages with piped water supply. At that stage, disparities between districts will unavoidably be judged on the basis of what proportion of the villages or preferably what proportion of the population in each district is provided with piped water supply. It will, therefore, be useful to assess the prospective position on the basis of this criterion.

12.11. As already mentioned, in the current programme, out of

Table 12.3

Piped Water Supply in Problem Villages

District	Number of Problem Villages	Population (thousands)	Problem Villages Supplied with Piped Water between 1980 and 1983		Expenditure Incurred	
			Number	Population (thousands)	Total (Rs. Lakh)	Per Capita (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	245	512	46	171	342.09	200.05
3. Raigad	194	405	101	137	437.84	319.59
4. Ratnagiri	241	504	29	89	473.38	531.89
KONKAN						
(excl. G.B.)	680	1,421	176	397	1,253.31	315.70
5. Nashik	189	395	39	121	361.66	298.89
6. Dhule	196	410	41	102	351.01	344.13
7. Jalgaon	280	585	68	112	497.54	444.23
8. Ahmednagar	223	466	77	292	384.79	131.78
9. Pune	270	564	62	155	445.01	287.10
10. Satara	299	625	119	263	585.32	222.56
11. Sangli	263	550	119	402	731.76	182.03
12. Solapur	233	487	98	345	444.43	128.82
13. Kolhapur	266	556	160	367	960.63	261.75
WESTERN MAHARASHTRA	2,219	4,638	783	2,159	4,762.15	220.57
14. Aurangabad	188	393	126	216	375.33	17.38
15. Parbhani	116	242	17	51	212.73	417.12
16. Beed	112	234	49	97	232.52	239.71
17. Nanded	141	295	34	57	235.62	413.37
18. Osmanabad	272	568	65	202	279.54	138.39
MARATHWADA	829	1,732	291	623	1,335.74	214.40
19. Buldhana	168	251	17	72	164.99	229.15
20. Akola	96	201	8	23	187.45	815.00
21. Amravati	64	117	11	22	136.38	619.91
22. Yavatmal	67	240	62	218	134.83	61.85
23. Wardha	40	82	29	59	191.19	324.05
24. Nagpur	53	128	37	60	231.79	386.32
25. Bhandara	61	127	25	78	152.58	195.62
26. Chandrapur	82	173	23	71	190.99	269.00
VIDARBHA	631	1,319	212	603	1,390.20	230.55
MAHARASHTRA STATE						
MAHARASHTRA STATE						
(excl. G.B.)	4,359	9,110	1,462	3,782	8,741.40	231.13

Table 12.3A.

Backlog in Piped Water Supply in Problem Villages

District	Percentage of Population in Problem Villages Supplied with Piped Water	Additional Population to be Supplied with Piped Water (thousands)	Cost of Supplying Piped Water (Rs. Lakh)	Total Cost of Supplying Water to Problem Villages by Wells and Pipes (Rs. Lakh)
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	33.40	42	84.02	321.62
3. Raigad	33.83	31	99.07	220.90
4. Ratnagiri	17.66	120	638.27	1,024.37
<u>KONKAN</u>				
(excl. G.B.)	27.94	193	821.36	1,566.89
5. Nashik	30.63	43	128.52	128.52
6. Dhule	24.88	68	234.01	234.01
7. Jalgaon	19.15	131	581.94	581.94
8. Ahmednagar	62.66	-	-	170.10
9. Pune	27.48	79	226.81	266.49
10. Satara	42.08	-	-	58.24
11. Sangli	73.09	-	-	-
12. Solapur	70.84	-	-	76.16
13. Kolhapur	66.01	-	-	23.76
<u>WESTERN MAHARASHTRA</u>	46.55	321	1,171.28	1,539.22
14. Aurangabad	54.96	-	-	-
15. Parbhani	21.07	49	204.39	204.39
16. Beed	41.45	-	-	-
17. Nanded	19.32	65	268.69	268.69
18. Osmanabad	35.56	34	47.05	47.05
<u>MARATHWADA</u>	35.97	138	520.13	520.13
19. Buldhana	28.69	32	73.33	73.33
20. Akola	11.44	60	489.00	489.00
21. Amravati	18.80	27	167.38	167.38
22. Yavatmal	90.83	-	-	-
23. Wardha	71.95	-	-	19.40
24. Nagpur	46.88	-	-	-
25. Bhandara	61.42	-	-	-
26. Chandrapur	41.04	1	2.69	2.69
<u>VIDARBHA</u>	45.72	120	732.40	751.80
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>				
(excl. G.B.)	41.51	772	3,245.17	4,378.04

the 17,112 'problem' villages, 4,359 villages are expected to be provided with piped water supply. To this number, we should add 1,758 villages, which were provided with piped water supply before 1.4.1980, actually between 1960-61 and 1979-80. Hence, at the end of the current programme, a total of (1,758 + 4,359) = 6,117 villages in the State will have piped water supply. In Table 12.4, we bring this information together. In col.2 is given the number of vilages which were provided with piped water supply before 1.4.1980; in col.3 is given their 1971 population. In cols.4 and 5 is given similar information for the villages to be given piped water supply in the current programme. In cols.6 and 7 the number and population of the two sets of villages are added together. These give the number of villages and population in each district, which will have been served with piped water at the end of the current programme. At that stage, the disparities between districts in the matter of drinking water supply will have to be judged in terms of the proportion of population provided with piped water supply. The relevant calculations are shown in Table 12.4A.

12.12. In col.2 of Table 12.4A, is shown the percentage of the rural population in each district which will have been provided with piped water supply. In col.3 is shown the backlog in terms of additional rural population, which must be provided with piped water supply to bring the lagging districts on par with the State average in this respect. In col.4 is given the cost of the backlog estimated on the basis of per capita cost during 1980-83 in each district (col.7 of Table 12.3). It amounts to Rs.47.71 crore. These calculations are done on the basis of 1971 population because we could not obtain the 1981 population of the concerned villages. These will need updating and revision. We wish to emphasise that the provision of piped water supply to the additional population indicated in this paragraph must be considered strictly after piped water is provided to all the 4,359 problem villages in which the problem of drinking water cannot be solved otherwise.

Urban Water Supply:

12.13. We shall now consider the urban water supply. Of the 219.94 lakh urban population, 212.32 lakh lived in 9 municipal corporation and 216 municipal council areas. As on 31.3.1982, except for 9 municipal council areas, all the municipal areas were provided with piped water supply. The population of the 9 municipal councils not having piped water supply was 77,409 and thus constituted only 0.36 per cent of the population of all the municipal areas. But all the other municipal areas did not have adequate water supply.

12.14. According to the norms of urban water supply, given in the Manual on Water Supply and Treatment prepared by an Expert Committee constituted by the Government of India in the Ministry of Works and Housing, the minimum water requirements of towns of different sizes are as under:

Table 12.4

Position of Piped Water Supply at the end of Present Programme

District	Number of Villages Supplied with Piped Water Before 1-4-1980.	Population of Villages in Col.(2) (thousands)	Number of Problem Villages to be Supplied Piped Water in Current Programme	Population of Villages in Col.(4) (thousands)	Col.(2) + Col.(4)	Col.(3) + Col.(5)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	58	105	245	512	303	617
3. Raigad	134	133	194	405	328	538
4. Ratnagiri	17	51	241	504	258	555
<u>KONKAN</u> (excl. G.B.)	<u>209</u>	<u>289</u>	<u>680</u>	<u>1,421</u>	<u>889</u>	<u>1,710</u>
5. Nashik	74	212	189	395	263	607
6. Dhule	22	108	196	410	218	518
7. Jalgaon	101	323	280	585	381	908
8. Ahmednagar	28	202	223	466	251	668
9. Pune	53	132	270	564	323	696
10. Satara	25	60	299	625	324	685
11. Sangli	36	267	263	550	299	817
12. Solapur	7	58	233	487	240	545
13. Kolhapur	6	25	266	556	272	581
<u>WESTERN MAHARASHTRA</u>	<u>352</u>	<u>1,387</u>	<u>2,219</u>	<u>4,638</u>	<u>2,571</u>	<u>6,025</u>
14. Aurangabad	102	127	188	393	495	520
15. Parbhani	79	121	116	242	195	363
16. Beed	121	166	112	234	233	400
17. Nanded	264	301	141	295	405	596
18. Osmanabad	106	348	272	568	378	916
<u>MARATHWADA</u>	<u>672</u>	<u>1,063</u>	<u>829</u>	<u>1,732</u>	<u>1,501</u>	<u>2,795</u>
19. Buldhana	28	35	168	251	196	286
20. Akola	163	113	96	201	259	314
21. Amravati	228	215	64	117	292	332
22. Yavatmal	-	-	67	240	67	240
23. Wardha	26	52	40	82	66	134
24. Nagpur	24	68	53	128	77	196
25. Bhandara	21	71	61	127	82	198
26. Chandrapur	35	39	82	173	117	212
<u>VIDARBHA</u>	<u>525</u>	<u>593</u>	<u>631</u>	<u>1,319</u>	<u>1,156</u>	<u>1,912</u>
<u>MAHARASHTRA STATE</u> <u>MAHARASHTRA STATE</u> (excl. G.B.)	<u>1,758</u>	<u>3,332</u>	<u>4,359</u>	<u>9,110</u>	<u>6,117</u>	<u>12,442</u>

Table 12.4A

Backlog in Rural Piped Water Supply at the end of Present Programme

District	Percentage of Rural Population Supplied with Piped Water	Backlog ('000 persons)	Cost (Rs. Lakh)
1	2	3	4
1. Greater Bombay	-	-	-
2. Thane	42.41	-	-
3. Raigad	48.45	-	-
4. Ratnagiri	30.44	98.69	524.92
<u>KONKAN</u>			
(excl. G.B.)	38.96	98.69	524.92
5. Nashik	35.90	-	-
6. Dhule	37.69	-	-
7. Jalgaon	56.02	-	-
8. Ahmednagar	33.11	55.32	72.90
9. Pune	37.66	-	-
10. Satara	45.66	-	-
11. Sangli	65.21	-	-
12. Solapur	33.29	41.97	54.07
13. Kolhapur	36.14	-	-
<u>WESTERN MAHARASHTRA</u>	41.41	97.29	126.97
14. Aurangabad	31.67	68.57	11.92
15. Parbhani	38.70	90.44	377.24
16. Beed	35.19	7.55	18.10
17. Nanded	50.96	-	-
18. Osmanabad	55.19	-	-
<u>MARATHWADA</u>	40.67	166.56	407.26
19. Buldhana	27.47	87.26	199.96
20. Akola	27.35	97.60	795.44
21. Amravati	29.74	68.27	423.21
22. Yavatmal	19.52	200.86	124.23
23. Wardha	22.77	76.96	249.39
24. Nagpur	22.09	122.11	471.74
25. Bhandara	14.09	305.72	598.05
26. Chandrapur	14.39	316.08	850.26
<u>VIDARBHA</u>	21.51	1,274.86	3,712.28
<u>MAHARASHTRA STATE</u>			
<u>MAHARASHTRA STATE</u>			
(excl. G.B.)	35.85	1,637.40	4,771.43

Table 12.5

Urban Water Supply: Population (Towns) Covered by Existing Level of Services

District	A	B	C	D	E	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	34,940(1)	-	-	-	-	34,940(1)
3. Raigad	-	-	-	28,823(2)	43,993(2)	72,706(5)
4. Ratnagiri	29,667(2)	-	27,250(1)	-	28,874(2)	85,791(5)
<u>KONKAN</u>						
(excl. G.B.)	64,607(3)	-	27,250(1)	28,823(2)	-	193,437(10)
5. Nashik	-	-	266,344(2)	140,719(5)	27,580(2)	434,643(9)
6. Dhule	19,115(1)	-	210,759(1)	145,352(4)	24,955(1)	400,181(7)
7. Jalgaon	-	45,395(2)	126,076(3)	182,756(6)	268,468(2)	622,695(13)
8. Ahmednagar	-	-	-	55,491(1)	21,699(1)	77,190(2)
9. Pune	-	-	18,311(1)	12,181(1)	37,121(1)	67,613(3)
10. Satara	-	-	26,415(2)	-	79,025(2)	105,440(4)
11. Sangli	-	-	-	-	59,175(2)	59,175(2)
12. Solapur	-	-	16,802(1)	103,170(3)	59,954(3)	179,926(7)
13. Kolhapur	-	-	-	14,430(1)	52,164(3)	66,594(4)
<u>WESTERN MAHARASHTRA</u>	<u>19,115(1)</u>	<u>45,395(2)</u>	<u>664,707(10)</u>	<u>654,099(21)</u>	<u>630,141(17)</u>	<u>2013,457(51)</u>
14. Aurangabad	-	20,881(2)	16,434(1)	482,424(5)	37,517(2)	557,256(10)
15. Parbhani	-	41,568(1)	51,835(3)	202,371(5)	30,614(2)	326,388(11)
16. Beed	-	-	-	80,412(3)	61,782(2)	142,194(5)
17. Nanded	-	9,865(1)	19,416(1)	37,940(3)	58,502(4)	125,453(9)
18. Osmanabad	-	106,958(5)	44,596(3)	40,619(3)	151,054(2)	343,227(13)
<u>MARATHWADA</u>	<u>-</u>	<u>179,272(9)</u>	<u>132,011(8)</u>	<u>843,766(19)</u>	<u>339,469(12)</u>	<u>1494,518(48)</u>
19. Buldhana	45,507(2)	-	141,583(4)	95,100(3)	-	282,190(9)
20. Akola	127,158(4)	-	72,288(3)	265,216(2)	-	464,662(9)
21. Amravati	-	98,468(2)	434,809(6)	39,516(2)	-	572,793(10)
22. Yavatmal	-	-	32,400(2)	56,719(3)	120,844(2)	209,963(7)
23. Wardha	-	-	11,566(1)	121,552(3)	88,495(1)	221,613(5)
24. Nagpur	-	-	164,890(6)	21,971(2)	12,722(1)	199,583(9)
25. Bhandara	18,452(1)	-	56,025(1)	100,423(1)	53,539(2)	228,439(5)
26. Chandrapur	61,398(1)	-	15,503(1)	10,569(1)	115,777(1)	203,247(4)
<u>VIDARBHA</u>	<u>252,515(8)</u>	<u>98,468(2)</u>	<u>929,064(24)</u>	<u>711,066(17)</u>	<u>391,377(7)</u>	<u>2382,490(58)</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	336,237(12)	323,135(13)	1753,032(43)	2237,754(59)	1433,744(40)	6083,902(15)

Table 12.6

Urban Water Supply: Existing Level of Services:
Water Supply

(M.L.D)

District	A	B	C	D	E	Total
1	2	3	4	5	6	7
1.Greater Bombay	-	-	-	-	-	-
2.Thane	-	-	-	-	-	-
3.Raigad	-	-	-	1.96	4.06	6.02
4.Ratnagiri	-	-	0.95	-	3.04	3.99
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	-	-	0.95	1.96	7.10	10.01
5.Nashik	-	-	20.96	9.05	2.36	32.37
6.Dhule	-	-	13.00	10.80	2.02	25.82
7.Jalgaon	-	0.54	5.36	11.62	23.36	40.88
8.Ahmednagar	-	-	-	4.50	0.48	4.98
9.Pune	-	-	0.90	5.16	3.63	9.69
10.Satara	-	-	1.05	-	7.15	8.20
11.Sangli	-	-	-	-	5.20	5.20
12.Solapur	-	-	0.74	7.52	4.86	13.12
13.Kolhapur	-	-	-	1.30	4.74	6.04
<u>WESTERN MAHARASHTRA</u>	-	0.54	42.01	49.95	53.80	146.30
14.Aurangabad	-	0.32	0.80	38.61	2.92	42.65
15.Parbhani	-	0.90	1.91	14.64	2.70	20.15
16.Beed	-	-	-	3.94	5.55	9.49
17.Nanded	-	0.12	0.78	2.10	4.34	7.34
18.Osmanabad	-	1.53	1.71	2.58	15.82	21.64
<u>MARATHWADA</u>	-	2.87	5.20	61.87	31.33	101.27
19.Buldhana	-	-	7.43	4.95	-	12.38
20.Akola	-	-	2.20	21.11	-	23.31
21.Amravati	-	2.33	16.61	0.68	-	19.62
22.Yavatmal	-	-	1.30	4.16	12.75	18.21
23.Wardha	-	-	0.55	9.07	10.00	19.62
24.Nagpur	-	-	6.94	1.32	1.00	9.26
25.Bhandara	-	-	3.50	7.00	5.00	15.50
26.Chandrapur	-	-	0.50	0.45	10.90	11.85
<u>VIDARBHA</u>	-	2.33	39.03	48.74	39.65	129.75
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
<u>(excl. G.B.)</u>	-	5.74	87.19	162.52	131.88	397.33

Table 12.6A

Urban Water Supply: Per Capita Availability:

(Litres per day)

District	A	B	C	D	E	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	-	-	-	-	-	-
3. Raigad	-	-	-	68.00	92.52	82.80
4. Ratnagiri	-	-	34.86	-	105.29	46.51
<u>KONKAN</u>						
(excl. G.B.)	-	-	34.86	68.00	97.59	51.75
5. Nashik	-	-	78.70	64.31	85.57	74.47
6. Dhule	-	-	61.68	74.30	80.95	64.52
7. Jalgaon	-	11.90	42.51	63.58	87.01	65.65
8. Ahmednagar	-	-	-	81.09	22.12	64.52
9. Pune	-	-	49.15	423.61	97.79	143.32
10. Satara	-	-	39.75	-	90.48	77.77
11. Sangli	-	-	-	-	87.87	87.87
12. Solapur	-	-	44.04	72.89	81.06	72.92
13. Kolhapur	-	-	-	90.09	90.87	90.70
<u>WESTERN MAHARASHTRA</u>	-	11.90	63.20	76.36	85.38	72.66
14. Aurangabad	-	15.32	48.68	80.03	77.83	76.54
15. Parbhani	-	21.65	36.85	72.34	88.19	61.74
16. Beed	-	-	-	49.00	89.83	66.74
17. Nanded	-	12.16	40.74	55.35	74.19	58.51
18. Osmanabad	-	14.30	38.34	63.52	104.73	63.05
<u>MARATHWADA</u>	-	16.01	39.39	73.33	92.29	67.76
19. Buldhana	-	-	52.48	52.05	-	43.87
20. Akola	-	-	30.43	79.60	-	50.17
21. Amravati	-	23.66	38.20	17.21	-	34.25
22. Yavatmal	-	-	40.12	73.34	105.51	86.73
23. Wardha	-	-	47.55	74.62	113.00	82.17
24. Nagpur	-	-	42.09	60.08	78.60	46.40
25. Bhandara	-	-	62.47	69.71	93.39	67.85
26. Chandrapur	-	-	32.25	42.58	94.15	58.30
<u>VIDARBHA</u>	-	23.66	42.01	68.54	101.31	54.46
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	-	17.76	49.74	72.63	91.98	63.66

Table 12.7

Urban Water Supply: Augmentation of Existing Level of Services -
Additional Water Requirement

(M.L.D)

District	From A to B	From B to C	From C to D	From D to E	From E to F	Total
1	2	3	4	5	6	7
1.Greater Bombay	-	-	-	-	-	-
2.Thane	0.87	0.85	0.90	0.87	0.51	4.00
3.Raigad	-	-	-	2.88	6.37	9.25
4.Ratnagiri	0.74	0.75	2.78	4.30	3.43	12.00
<u>KONKAN</u>						
(excl. G.B.)	<u>1.61</u>	<u>1.60</u>	<u>3.68</u>	<u>8.05</u>	<u>10.31</u>	<u>25.25</u>
5.Nashik	-	-	24.07	21.15	10.98	56.20
6.Dhule	0.48	0.48	20.22	21.58	9.24	52.00
7.Jalgaon	-	2.27	10.59	21.74	43.56	78.16
8.Ahmednagar	-	-	-	5.50	3.00	8.50
9.Pune	-	-	1.37	1.66	4.97	8.00
10.Satara	-	-	1.98	0.59	9.98	12.55
11.Sangli	-	-	-	-	6.25	6.25
12.Solapur	-	-	1.26	10.73	9.26	21.25
13.Kolhapur	-	-	1.08	0.36	5.86	7.30
<u>WESTERN MAHARASHTRA</u>	<u>0.48</u>	<u>2.75</u>	<u>60.57</u>	<u>83.31</u>	<u>103.10</u>	<u>250.21</u>
14.Aurangabad	-	0.89	1.73	45.45	6.18	54.25
15.Parbhani	-	2.03	4.89	25.29	6.66	38.87
16.Beed	-	-	-	8.03	7.22	15.25
17.Nanded	-	0.35	1.61	4.43	13.46	19.85
18.Osmanabad	-	5.83	6.25	6.83	21.09	40.00
<u>MARATHWADA</u>	-	<u>9.10</u>	<u>14.48</u>	<u>90.03</u>	<u>54.61</u>	<u>168.22</u>
19.Buldhana	1.06	1.06	12.84	13.56	2.73	31.25
20.Akola	3.50	3.50	8.57	36.62	4.31	56.50
21.Amravati	-	6.60	30.85	17.83	5.72	61.00
22.Yavatmal	-	-	2.43	7.54	16.03	26.00
23.Wardha	-	-	-	9.89	11.92	21.81
24.Nagpur	-	-	12.67	6.84	5.41	24.92
25.Bhandara	0.46	0.46	5.71	12.23	7.14	26.00
26.Chandrapur	1.91	1.93	3.08	3.35	15.45	25.72
<u>VIDARBHA</u>	<u>6.93</u>	<u>13.55</u>	<u>76.15</u>	<u>107.86</u>	<u>68.71</u>	<u>273.20</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>9.02</u>	<u>27.00</u>	<u>154.88</u>	<u>289.25</u>	<u>236.73</u>	<u>716.88</u>

Table 12.7A

Urban Water Supply: Cost of Augmentation of Existing
Level of Services

(Rs. Lakh)

District	From A to B	From B to C	From C to D	From D to E	From E to F	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	34.80	35.20	34.80	34.80	20.40	160.00
3. Raigad	-	-	-	115.20	254.80	370.00
4. Ratnagiri	29.60	30.00	111.20	172.00	137.20	480.00
<u>KONKAN</u>						
(excl. G.B.)	<u>64.40</u>	<u>65.20</u>	<u>146.00</u>	<u>322.00</u>	<u>412.40</u>	<u>1,010.00</u>
5. Nashik	-	-	962.80	846.00	439.20	2,248.00
6. Dhule	19.20	19.20	808.80	863.20	369.60	2,080.00
7. Jalgaon	-	90.80	423.60	869.60	1,742.40	3,126.40
8. Ahmednagar	-	-	-	220.00	120.00	340.00
9. Pune	-	-	54.80	66.40	198.80	320.00
10. Satara	-	-	79.20	23.60	399.20	502.00
11. Sangli	-	-	-	-	250.00	250.00
12. Solapur	-	-	50.40	429.20	370.40	850.00
13. Kolhapur	-	-	43.20	14.40	234.40	292.00
<u>WESTERN MAHARASHTRA</u>	<u>19.20</u>	<u>110.00</u>	<u>2,422.80</u>	<u>3,332.40</u>	<u>4,124.00</u>	<u>10,008.40</u>
14. Aurangabad	-	35.60	69.20	1,842.00	223.20	2,170.00
15. Parbhani	-	81.20	195.60	1,011.60	266.40	1,554.80
16. Beed	-	-	-	321.20	288.80	610.00
17. Nanded	-	14.00	64.40	177.20	538.40	794.00
18. Osmanabad	-	233.20	250.00	273.20	843.60	1,600.00
<u>MARATHWADA</u>		<u>364.00</u>	<u>579.20</u>	<u>3,625.20</u>	<u>2,160.40</u>	<u>6,728.80</u>
19. Buldhana	42.40	42.40	513.60	542.40	109.20	1,250.00
20. Akola	140.00	140.00	342.80	1,464.80	172.40	2,260.00
21. Amravati	-	264.00	1,234.00	713.20	228.80	2,440.00
22. Yavatmal	-	-	97.20	301.60	641.20	1,040.00
23. Wardha	-	-	-	395.60	476.84	872.40
24. Nagpur	-	-	506.80	273.60	216.40	996.80
25. Bhandara	18.40	18.40	228.40	489.20	285.60	1,040.00
26. Chandrapur	76.40	77.20	123.20	134.00	618.00	1,028.80
<u>VIDARBHA</u>	<u>277.20</u>	<u>542.00</u>	<u>3,046.00</u>	<u>4,314.40</u>	<u>2,748.40</u>	<u>10,928.00</u>
<u>MAHARASHTRA STATE</u>						
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	<u>360.80</u>	<u>1,081.20</u>	<u>6,194.00</u>	<u>11,594.00</u>	<u>9,445.20</u>	<u>28,675.20</u>

Table 12.8

Cost of Backlog in Water Supply

(Rs. Lakh)

District	RURAL WATER SUPPLY		Urban Water Supply	Total Cost Cols. (2)+ (3) + (4)+ (5)	
	Bore Wells/ Dug Wells	Piped Water Supply Present Programme			After Present Programme
1	2	3	4	5	6
1.Greater Bombay	-	-	-	-	-
2.Thane	237.60	84.02	-	160.00	481.62
3.Raigad	121.83	99.07	-	370.00	590.90
4.Ratnagiri	386.10	638.27	524.92	480.00	2,029.29
KONKAN					
<u>(excl. G.B.)</u>	<u>745.53</u>	<u>821.36</u>	<u>524.92</u>	<u>1,010.00</u>	<u>3,101.81</u>
5.Nashik	-	128.52	-	2,248.00	2,376.52
6.Dhule	-	234.01	-	2,080.00	2,314.01
7.Jalgaon	-	581.94	-	3,126.40	3,708.34
8.Ahmednagar	170.10	-	72.90	340.00	583.00
9.Pune	39.68	226.81	-	320.00	586.49
10.Satara	58.24	-	-	502.00	560.24
11.Sangli	-	-	-	250.00	250.00
12.Solapur	76.16	-	54.07	850.00	980.23
13.Kolhapur	23.76	-	-	292.00	315.76
WESTERN MAHARASHTRA	<u>367.94</u>	<u>1,171.28</u>	<u>126.97</u>	<u>10,008.40</u>	<u>11,674.59</u>
14.Aurangabad	-	-	11.92	2,170.00	2,181.92
15.Parbhani	-	204.39	377.24	1,554.00	2,135.63
16.Beed	-	-	18.10	610.00	628.10
17.Nanded	-	268.69	-	794.00	1,062.69
18.Osmanabad	-	47.05	-	1,600.00	1,647.05
MARATHWADA	-	<u>520.13</u>	<u>407.26</u>	<u>6,728.80</u>	<u>7,656.19</u>
19.Buldhana	-	73.33	199.96	1,250.00	1,523.29
20.Akola	-	489.00	795.44	2,260.00	3,544.44
21.Amravati	-	167.38	423.21	2,440.00	3,030.59
22.Yavatmal	-	-	124.23	1,040.00	1,164.23
23.Wardha	19.40	-	249.39	872.40	1,141.19
24.Nagpur	-	-	471.74	996.80	1,468.54
25.Bhandara	-	-	598.05	1,040.00	1,638.05
26.Chandrapur	-	2.69	850.26	1,028.80	1,881.75
VIDARBHA	<u>19.40</u>	<u>732.40</u>	<u>3,712.28</u>	<u>10,928.00</u>	<u>15,392.08</u>
MAHARASHTRA STATE					
MAHARASHTRA STATE					
<u>(excl. G.B.)</u>	<u>1,132.87</u>	<u>3,245.17</u>	<u>4,771.43</u>	<u>28,675.20</u>	<u>37,824.67</u>

<u>Population</u>	<u>Minimum requirement</u> <u>Litres per capita per day</u>
Upto 10,000	70
10,000 - 50,000	100
Above 50,000	125

12.15. The municipal towns may be classified according to the present level of water supply into the following six categories: (A) No water service; (B) Less than 25 per cent of the minimum norm; (C) 25 per cent or more but less than 50 per cent of the minimum norm; (D) 50 per cent or more but less than 75 per cent of the minimum norm; (E) 75 per cent or more but less than 100 per cent of the minimum norm; and (F) 100 per cent or more of the minimum norm. Out of the 225 municipal towns, 55 are in F category, that is, have water supply above the minimum norm. In Table 12.5, we give the population of the remaining towns in each district classified into the other five categories. In brackets are shown the number of towns in each case. In Table 12.6, is shown the corresponding supply of water in million litres per day (MLD). In Table 12.6A is shown the per capita water supply in each category. We should add that in each category there are towns of different sizes which have different minimum norms. Hence, the per capita water supply in each category of towns is not directly comparable with one another or between districts.

12.16. We suggest that the backlog of districts in the matter of urban water supply should be assessed on the basis of additional water supply needed to bring the water supply in all the municipal towns to the minimum norm. We have divided it into five phases with priorities I to V. These are as follows: (I) Bringing all towns in category A to category B; that is giving them at least some water supply; (II) Bringing all towns in category B (together with towns in A already brought into B by I) to category C; that is augmenting their water supply to at least 25 per cent of the minimum norm; (III) Bringing all towns in category C (together with those in A and B already brought into C by I and II), to the category D; that is augmenting their water supply to at least 50 per cent of the minimum norm; (IV) Bringing all towns in category D (together with those in A, B and C already brought into D by I, II and III) to category E; that is augmenting their water supply to at least 75 per cent of the minimum norm; and (V) Bringing all towns in category E (together with those in A, B, C and D already brought into E by I, II, III and IV) to category F; that is augmenting their water supply to the full minimum norm and more. In Table 12.7, we give estimates of additional water requirements at each priority phase of the programme. In Table 12.7A, we give the cost estimated at the rate of Rs.40 lakh per MLD. The cost of the total programme amounts to Rs.286.75 crore.

12.17. In Table 12.8, we bring together the cost of backlog in rural and urban water supply. It comprises, (i) rural water supply for the problem villages by dug/bore wells; (ii) piped water supply to problem villages where the problem cannot be

solved otherwise; (iii) backlog in piped water supply at the end of the present programme; and (iv) urban water supply at full norm. It all adds up to Rs.378.25 crore. To the extent of operationally feasible, the programme of urban water supply should be phased into the five phases with priorities as shown.

CHAPTER XIII

INDUSTRY

✓ 13.1. Because of the existence of the historically developed industrial centre of Bombay and the strong pull it continues to exert, the regional disparities in the matter of industrial development are some of the acutest in Maharashtra. For instance, in 1962, out of the total factory employment of 810,297 in the State, 561,682, which is nearly 70 per cent of the total, was located in Greater Bombay and the adjoining areas of Thane district. Several study groups and committees appointed by the State Government since 1958 have emphasised the need to restrain the industrial growth in this area. The Barve Study Group on Greater Bombay (1958) proposed rigorous controls for the purpose. The Gadgil Committee on Metropolitan Regions (Bombay and Pune) (1965) and the Bombay Metropolitan Regional Planning Board (1967) advocated that a metropolitan region extending much beyond Bombay city should be the planning unit and industrial and urban growth of the whole region should be severely controlled. In 1965, the State Government announced a somewhat restrictive location policy for the Greater Bombay area but in 1968 it was much liberalised. In 1974, the State Government and the City and Industrial Development Corporation of Maharashtra (CIDCO) commissioned Tata Consultancy Services to undertake a study of Industrial Locations in Maharashtra. Among other things, they recommended that, for all industrial groups, employment in Greater Bombay should be frozen at its 1969 level and that the employment in the chemical complex at Thane could be allowed to increase by 2,000 between 1974 and 1980. Since then, the State Government has been operating a comprehensive restrictive Industrial Location Policy for the Bombay Metropolitan Region. We shall examine this policy a little later.

Institutional Structure for Industrial Development & Finance:

13.2. In the meanwhile, the State Government created two major institutions for promoting industrial development in the State, particularly in its underdeveloped and developing areas. The Maharashtra Industrial Development Corporation (MIDC) was set up in 1962 with the objective of securing and assisting rapid and orderly establishment and growth of industry in the State. The MIDC develops industrial areas in different parts of the State and provides industrial plots and sheds along with requisite infrastructure in roads, water and power and other common facilities.

13.3. The other institution is the State Industrial and Investment Corporation of Maharashtra (SICOM) set up in 1966 specifically to promote industrial development in the underdeveloped areas of the State. In order that SICOM may fully concentrate its efforts on these areas, Bombay Metropolitan Region (BMR) and Pune Metropolitan Region (PMR) are kept out of its jurisdiction. The SICOM provides wide ranging facilities and

concessions to the entrepreneurs intending to set up industrial units in the developing areas of the State. These consist of project identification, project promotion and investment guidance, plant location service, financial assistance by way of loan, equity and underwriting facilities, capital participation, industrial escort service and merchant banking. In 1964, the State Government introduced a Package Scheme of Incentives for the Dispersals of Industries. Since April 1969 the State Government has entrusted the administration of the Scheme to SICOM. SICOM also disburses the Central Capital Subsidy to the projects and later gets reimbursed by the Central Government.

13.4. Other important State level agencies are the Maharashtra Small-Scale Industries Development Corporation (MISSDC) established in 1962. Its major function is to procure and distribute raw materials to the registered small-scale industries. It also undertakes other activities such as marketing of products, sales of machinery on hire-purchase, provision of warehousing facilities, etc.

13.5. There are four regional development corporations, for Marathwada, Vidarbha, Western Maharashtra, and Konkan respectively. The first regional development corporation was set up for Marathwada in 1967. The other three were set up in 1970-71. The regional corporations are expected to attend to the overall development of their regions, major focus being on industrial development. For this purpose, they are expected to play essentially a catalytic role and to coordinate the activities of the various State-level Corporations and Government agencies working in their regions.

13.6. Besides the working capital normally supplied by the commercial banks, industries require long term capital. The apex financial institution in the country for this purpose is the Industrial Development Bank of India (IDBI). Other all-India industrial financial institutions are : Industrial Credit and Investment Corporation of India (ICICI), and Industrial Finance Corporation of India (IFCI). These institutions provide mainly direct finance to large industries with fixed assets in new units of more than Rs.2 crore. Normally, the institutions finance such projects on a participation basis often involving other institutions such as Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC) and Unit Trust of India (UTI).

13.7. Financing of projects of less than Rs.2 crore is normally left to the State level institutions such as SICOM and Maharashtra State Finance Corporation (MSFC). MSFC finances small and medium projects with a total cost not exceeding Rs.50 lakh. Projects between Rs.50 lakh and Rs.2 crore are financed by SICOM provided they are being set up in under-developed areas of the State (i.e. outside BMR and PMR). The maximum limit for MSFC loans is Rs.30 lakh.

13.8. Besides the direct finance it gives to large industries, the IDBI also provides concessional refinance to the State

Finance Corporations such as the MSFC and Commercial banks in respect of term loans upto Rs.30 lakh to small and medium-sized projects in specified backward districts, provided the paid-up capital and reserves of the recipient units do not exceed Rs.1 crore. Existing units with expansion schemes are also eligible, provided the paid-up capital and reserves after expansion do not exceed Rs.1 crore and the increase in the value of fixed capital under the expansion scheme is not less than 25 per cent of the fixed capital of the existing unit before expansion. The refinance facilities are also extended to the State Industrial Development Corporations such as the SICOM. A term loan upto Rs.90 lakh given by SICOM is refinanceable by IDBI. Hence, in projects requiring term loan of more than Rs.90 lakh, SICOM and MSFC share the term loan and sometimes also involve commercial banks for a portion of the term loan. In most projects, the total financial package consists of the following element: (i) Promoters' contribution; (ii) Term loan given by the all-India and State level financial institutions; (iii) Seed Capital normally available through IDBI to first generation entrepreneurs for projects upto Rs.2 crore; and (iv) Central Capital Subsidy or Special Capital Incentive given by the State Government.

Maharashtra Industrial Development Corporation:

13.9. We shall first examine the operations of the MIDC. As mentioned above, MIDC was established in 1962. For reviewing its operations over the two decades 1962-1983, we shall divide the period into two parts: 1962-1974 and 1974-1983. The reason to divide it at 31-3-1974 is that, as mentioned above, a comprehensive Industrial Location Policy for Bombay Metropolitan Region, intended to restrict further industrial growth in that region, is in operation since 1974. We shall review the following aspects of the industrial areas developed by MIDC in different districts: (i) Development of plots and their allotment; (ii) Construction of galas, either independent or in flatted buildings, and their allotment; (iii) Expenditure incurred by MIDC for development of the industrial areas; (iv) Capital invested in units in production; and (v) Employment in units in production.

13.10. In Table 13.1 we give the number of plots carved out and number of plots allotted upto 31-3-1974, between 1-4-1974 and 31-3-1983 and upto 31-3-1983. Upto 31-3-1974, MIDC had carved out 5,419 plots and 3,787 of these were allotted; the corresponding figures upto 31-3-1983 are 15,980 and 13,644. The percentage of plots allotted to those carved out was somewhat higher in Western Maharashtra than in other regions of the State. As on 31-3-1983, the percentage of plots allotted to the number of carved was 87.63 in BMR, 89.83 in Western Maharashtra, 83.66 in Konkan (excluding BMR), 81.24 in Marathwada, and only 75.50 in Vidarbha.

13.11 In Table 13.1A, we give the plots allotted in different districts as percentage of State total (Col.s 2, 3 and 4) and also of per lakh population of the district. It will be noticed that as on 31-3-1974, 40.64 per cent of the plots allotted were

Table 13.1

Number of Plots Carved out and Plots Allotted in MIDC Industrial Estate

District	Plots Carved Out			Plots Allotted		
	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983
1	2	3	4	5	6	7
1. Greater Bombay						
(incl. BMR)	1,956	2,425	4,381	1,539	2,300	3,839
2. Thane	180	873	1,053	34	945	979
3. Raigad	78	153	231	74	130	204
4. Ratnagiri	70	611	681	66	395	461
KONKAN						
(excl. G.B.+ BMR)	328	1,637	1,965	174	1,470	1,644
5. Nashik	426	871	1,297	328	874	1,202
6. Dhule	23	2	25	22	3	25
7. Jalgaon	133	307	440	128	302	430
8. Ahmednagar	103	296	399	7	315	322
9. Pune	838	713	1,551	450	983	1,433
10. Satara	96	244	340	66	170	236
11. Sangli	44	321	365	7	315	322
12. Solapur	346	203	549	328	212	540
13. Kolhapur	239	251	490	138	253	391
WESTERN MAHARASHTRA	<u>2,248</u>	<u>3,208</u>	<u>5,456</u>	<u>1,474</u>	<u>3,427</u>	<u>4,901</u>
14. Aurangabad	394	555	949	344	494	838
15. Parbhani	-	137	137	-	110	110
16. Beed	45	35	80	9	50	59
17. Nanded	77	241	318	17	210	227
18. Osmanabad	-	302	302	-	217	217
MARATHWADA	<u>516</u>	<u>1,270</u>	<u>1,786</u>	<u>370</u>	<u>1,081</u>	<u>1,451</u>
19. Buldhana	-	211	211	-	130	130
20. Akola	87	245	332	65	239	304
21. Amravati	-	196	196	-	181	181
22. Yavatmal	-	120	120	-	102	102
23. Wardha	-	193	193	-	151	151
24. Nagpur	194	767	961	163	561	724
25. Bhandara	-	78	78	-	46	46
26. Chandrapur	90	211	301	2	166	168
VIDARBHA	<u>371</u>	<u>2,021</u>	<u>2,392</u>	<u>230</u>	<u>1,576</u>	<u>1,806</u>
MAHARASHTRA STATE	<u>5,419</u>	<u>10,561</u>	<u>15,980</u>	<u>3,787</u>	<u>9,857</u>	<u>13,644</u>
MAHARASHTRA STATE						
(excl. G.B.+ BMR)	<u>3,463</u>	<u>8,136</u>	<u>11,599</u>	<u>2,248</u>	<u>7,557</u>	<u>9,805</u>

Table 13.1A

Plots Allotted in MIDC Industrial Areas.

District	As Percentage to State Totals			As per Lakh of 1981 Population		
	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983
1	2	3	4	5	6	7
1. Greater Bombay (incl. BMR)	40.64	23.33	28.14	18.67	27.90	46.57
2. Thane	0.90	9.59	7.18	1.01	28.20	29.21
3. Raigad	1.95	1.32	1.50	4.98	8.75	13.73
4. Ratnagiri	1.74	4.01	3.38	3.13	18.71	21.84
<u>KONKAN</u> (excl. G.B.+ BMR)	4.59	14.91	12.05	2.50	21.26	23.66
5. Nashik	8.66	8.87	8.81	10.96	29.22	40.18
6. Dhule	0.58	0.03	0.18	1.07	0.15	1.22
7. Jalgaon	3.38	3.06	3.15	4.89	11.53	16.42
8. Ahmednagar	0.18	3.20	2.36	0.26	11.63	11.89
9. Pune	11.88	9.97	10.50	10.80	23.61	34.41
10. Satara	1.74	1.72	1.73	3.24	8.34	11.58
11. Sangli	0.18	3.20	2.36	0.38	17.20	17.58
12. Solapur	8.66	2.15	3.96	12.57	8.12	20.69
13. Kolhapur	3.64	2.60	2.89	5.51	10.09	15.60
<u>WESTERN MAHARASHTRA</u>	38.92	34.77	35.92	6.27	14.57	20.84
14. Aurangabad	9.08	5.01	6.14	14.14	20.30	34.44
15. Parbhani	-	1.12	0.81	-	6.01	6.01
16. Beed	0.24	0.51	0.43	0.60	3.36	3.96
17. Nanded	0.45	2.13	1.66	0.97	12.00	12.97
18. Osmanabad	-	2.20	1.59	-	9.73	9.73
<u>MARATHWADA</u>	9.77	10.97	10.63	3.80	11.11	14.91
19. Buldhana	-	1.32	0.95	-	8.62	8.62
20. Akola	1.72	2.42	2.23	3.56	13.08	16.64
21. Amravati	-	1.84	1.33	-	9.72	9.72
22. Yavatmal	-	1.03	0.75	-	5.87	5.87
23. Wardha	-	1.53	1.11	-	16.30	16.30
24. Nagpur	4.30	5.69	5.31	6.30	21.67	27.97
25. Bhandara	-	0.47	0.34	-	2.50	2.50
26. Chandrapur	0.05	1.68	1.23	0.10	8.07	8.17
<u>VIDARBHA</u>	6.07	15.99	13.24	1.60	10.99	12.59
<u>MAHARASHTRA STATE</u>	100.00	100.00	100.00	6.03	15.70	21.73
<u>MAHARASHTRA STATE</u> (excl. G.B.+ BMR)	59.36	76.67	71.86	3.57	13.05	16.62

in the BMR area. Since then, MIDC is evidently giving greater attention to the other areas. Of the plots allotted during 1974-83, only 23.33 per cent are in the BMR area. But there is partly compensating increase in the adjoining areas of Thane district. If we take BMR and Thane district, the two accounted for 41.54 per cent of the plots allotted upto 31-3-1974 and 32.92 per cent of the plots allotted between 1-4-1974 and 31-3-1983. The decline in the percentage of plot allocations in BMR and Thane district is reflected in corresponding increase in percentage plot allocations mainly in Vidarbha. Of the plots allotted upto 31-3-1974, only 6.07 per cent were in Vidarbha; but of those allotted between 1-4-1974 and 31-3-1983, 15.99 per cent were in Vidarbha. In terms of per lakh of population, the plots allotted as on 31-3-1983 were 21.73 in the whole State. Figures above the State average are: 46.57 in BMR, 40.18 in Nashik, 34.41 in Pune, 34.44 in Aurangabad, and 27.97 in Nagpur.

13.12. Similar information for sheds/galas, both independent and in flatted buildings, in MIDC industrial estates is given in Table 13.2. Allotment of sheds/galas constructed is nearly hundred per cent. Hence, we shall consider only the sheds/galas allotted. The number of sheds/galas allotted upto 31-3-1974 was 217; between 31-3-74 and 31-3-83, additional 1,966 galas were allotted bringing the total sheds/galas allotted until 31-3-1983 to 2,183. Over half (51.21 per cent) of these were in the BMR areas on a per capita basis, the remaining were distributed between the other regions as follows: 2.74 in Western Maharashtra, 1.59 in Marathwada, 1.54 in Konkan excluding BMR and 1.11 in Vidarbha.

13.13. Finally, we may examine MIDC's expenditure and the development of industrial areas in different districts. (Table 15.3). Upto 31-3-1974, this amounted to Rs.37.62 crore. Expenditure incurred between 31-3-1974 and 31-3-1983 amounted to Rs.112.66 crore bringing the total to Rs.150.28 crore. Much of the expenditure incurred upto 31-3-1974 was in the BMR areas (72.02 per cent). The expenditure incurred during 1974-83 was much better distributed, only 26.65 per cent going to BMR areas. Hence, we may confine attention to expenditure incurred during this period in areas other than the BMR areas. This is summarised in the following:

MIDC's expenditure on development of Industrial Areas
between 31-3-1974 and 31-3-1983

<u>Region</u>	<u>Expenditure</u>	
	<u>Rs. lakh</u>	<u>Rs. per capita</u>
Konkan (excl. BMR)	3501.87	50.39
Western Maharashtra	3043.78	12.94
Marathwada	721.09	7.41
Vidarbha	996.79	6.95
Maharashtra (excl. BMR)	8263.53	15.15

The expenditure in Konkan region is of course very large. In fact of the total expenditure while 26.65 per cent went to BMR

Table 13.2

Sheds/Galas Allotted in MIDC Industrial Areas.

District	Sheds/Galas Allotted			Sheds/Galas Allotted per Lakh of 1981 Population		
	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983
1	2	3	4	5	6	7
1. Greater Bombay (BMR)	97	1,021	1,118	1.18	12.38	13.56
2. Thane	-	67	67	-	2.00	2.00
3. Raigad	-	-	-	-	-	-
4. Ratnagiri	-	40	40	-	1.89	1.89
<u>KONKAN</u> (excl. G.B.+ BMR)	-	107	107	-	1.54	1.54
5. Nashik	27	114	141	0.90	3.81	4.71
6. Dhule	-	-	-	-	-	-
7. Jalgaon	-	20	20	-	0.76	0.76
8. Ahmednagar	-	35	35	-	1.29	1.29
9. Pune	56	279	335	1.34	6.70	8.04
10. Satara	3	13	16	0.15	0.64	0.79
11. Sangli	-	21	21	-	1.15	1.15
12. Solapur	-	20	20	-	0.77	0.77
13. Kolhapur	3	53	56	0.12	2.11	2.23
<u>WESTERN MAHARASHTRA</u>	89	554	643	0.38	2.36	2.74
14. Aurangabad	6	108	114	0.25	4.44	4.69
15. Parbhani	-	10	10	-	0.55	0.55
16. Beed	-	5	5	-	0.34	0.34
17. Nanded	-	16	16	-	0.91	0.91
18. Osmanabad	-	10	10	-	0.45	0.45
<u>MARATHWADA</u>	6	149	155	0.06	1.53	1.59
19. Buldhana	-	5	5	-	0.33	0.33
20. Akola	5	18	23	0.27	0.99	1.26
21. Amravati	-	10	10	-	0.54	0.54
22. Yavatmal	-	6	6	-	0.35	0.35
23. Wardha	-	-	-	-	-	-
24. Nagpur	20	82	102	0.77	3.17	3.94
25. Bhandara	-	4	4	-	0.22	0.22
26. Chandrapur	-	10	10	-	0.49	0.49
<u>VIDARBHA</u>	25	135	160	0.17	0.94	1.11
<u>MAHARASHTRA STATE</u>	217	1,966	2,183	0.35	3.13	3.48
<u>MAHARASHTRA STATE</u> (excl. G.B.+ BMR)	120	945	1,065	0.22	1.73	1.95

Table 13.3

MIDC's Expenditure on Development of Industrial Areas.

District	Upto March 1974		During 1974-83		Upto March 1983	
	Expend- iture (Rs.Lakh)	Per Capita* (Rs.)	Expend- iture (Rs.Lakh)	Per Capita* (Rs.)	Expend- iture (Rs.Lakh)	Per Capita* (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay (incl. BMR)	2,708.88	32.86	3,002.57	36.42	5,711.45	69.28
2. Thane	154.57	4.62	866.88	25.86	1,021.45	30.48
3. Raigad	47.74	3.21	2,094.12	140.88	2,141.86	144.09
4. Ratnagiri	90.78	4.30	540.87	25.62	631.65	29.92
<u>KONKAN</u>						
<u>(excl. G.B.+ BMR)</u>	<u>293.97</u>	<u>4.23</u>	<u>3,501.87</u>	<u>50.39</u>	<u>3,794.96</u>	<u>54.62</u>
5. Nashik	79.12	2.64	397.10	13.27	476.22	15.91
6. Dhule	2.58	0.12	24.18	1.18	26.76	1.30
7. Jalgaon	7.35	0.28	400.61	15.30	407.96	15.58
8. Ahmednagar	1.38	0.05	846.61	31.26	847.99	31.31
9. Pune	275.00	6.60	714.41	17.16	989.41	23.76
10. Satara	11.25	0.55	168.23	8.25	179.48	8.80
11. Sangli	74.75	4.08	129.30	7.06	204.05	11.14
12. Solapur	12.59	0.48	87.81	3.37	100.40	3.85
13. Kolhapur	7.88	0.31	275.53	11.00	283.41	11.31
<u>WESTERN MAHARASHTRA</u>	<u>471.90</u>	<u>2.01</u>	<u>3,043.78</u>	<u>12.94</u>	<u>3,515.68</u>	<u>14.95</u>
14. Aurangabad	120.15	4.94	537.89	22.10	658.04	27.04
15. Parbhani	-	-	35.01	1.91	35.01	1.91
16. Beed	3.69	0.25	20.66	1.39	24.35	1.64
17. Nanded	34.96	2.00	58.72	3.36	93.68	5.36
18. Osmanabad	0.10	neg	68.81	3.08	68.91	3.08
<u>MARATHWADA</u>	<u>158.90</u>	<u>1.63</u>	<u>721.09</u>	<u>7.41</u>	<u>879.99</u>	<u>9.04</u>
19. Buldhana	-	-	138.28	9.17	138.28	9.17
20. Akola	11.77	0.64	82.91	4.54	94.68	5.18
21. Amravati	-	-	72.79	3.91	72.79	3.91
22. Yavatmal	0.02	neg	43.02	2.48	43.04	2.48
23. Wardha	1.80	0.19	143.19	15.46	144.99	15.65
24. Nagpur	112.79	4.36	252.38	9.75	365.17	14.11
25. Bhandara	1.57	0.08	163.78	8.92	165.35	9.00
26. Chandrapur	0.80	0.04	100.44	4.89	101.24	4.93
<u>VIDARBHA</u>	<u>128.75</u>	<u>0.90</u>	<u>996.79</u>	<u>6.95</u>	<u>1,125.54</u>	<u>7.85</u>
<u>MAHARASHTRA STATE</u>	<u>3,761.52</u>	<u>5.99</u>	<u>11,266.10</u>	<u>17.94</u>	<u>15,027.62</u>	<u>23.93</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.+ BMR)</u>	<u>1,052.64</u>	<u>1.93</u>	<u>8,263.53</u>	<u>15.15</u>	<u>9,316.17</u>	<u>17.08</u>

* Per Capita of 1981 Population.

areas, another 27.02 was in Konkan region, much of it in areas adjoining the BMR area. The rest of the expenditure is somewhat evenly distributed between Western Maharashtra, Marathwada and Vidarbha but not quite so on a per capita basis; the per capita expenditure in Western Maharashtra is 86 per cent more than that in Vidarbha. On the basis of per lakh population, the State Average expenditure between 1-4-1974 and 31-3-1983 is Rs.17.94. The above average figures are: Raigad Rs.140.88, BMR Rs.36.42, Ahmednagar Rs.31.26, Thane Rs.25.86, Ratnagiri Rs.25.62 and Aurangabad Rs.22.10.

13.14. By far the largest item of development expenditure is water supply. Water supply also constitutes the main source of revenue of MIDC. MIDC leases the plots in its industrial areas at premium rates and supplies water charged per cubic meter. The rates vary greatly from area to area. To illustrate, we give in the following, the premium rates per sq. meter for plots in different industrial areas of the MIDC as on 31-3-1980. The rates are different for industrial and commercial plots; the commercial plots bearing a higher rate. For each industrial area, we show, in brackets, the two rates separately, first industrial and then commercial:

Marol (250, 375); Thane-Wagle Estate (150, 225);
 Trans-Thane-Creek, Kalwa (120, 180);
 Mira, Dombivali, Talaja (70, 105);
 Ambernath (65, 98); Additional Ambernath (55, 83);
 Pimpri-Chinchwad, Kharadi (50, 75); Badlapur (45, 68);
 Patalganga (40, 60); Kalyan-Bhivandi Road (30, 45);
 Roha (25, 32); South of Kolad-Roha Road (20, 25);
 Tarapur (20, 25); North of Kolad-Roha Road (15, 19);
 Nashik-Satpur, Additional Nashik-Ambad (18, 23);
 Murad (18, -); Ahmednagar (10, 13);
 Aurangabad, Chikhalthana (12, 15);
 Jalgaon, Additional Jalgaon, Kolhapur-Shiroli, Nagpur
 (8, 10);
 Satara (5, 7);
 Sangli-Miraj, Islampur, Kudal, Ratnagiri, Chiplun, Gane-
 Khadpoli, Khamgaon, Akola, Amravati, Wardha, Gondia,
 Chandrapur, Chugus, Yavatmal, Jalna, Additional Jalna,
 Paithan, Beed, Parbhani, Nanded, Osmanabad, Latur (2.50, 4).

In the following, we give the water rates charged beginning with October 15, 1983:

Marol, Mira (5.50), Thane-Wagle Estate (4.00), Thane-
 Belapur Belt, Talaja (3.00), Dombivali, Ambernath,
 Badlapur, Patalganga, Kalyan, Bhivandi, Pimpri-Chinchwad
 (2.50), Nashik, Kolhapur, Aurangabad (1.20), Tarapur, Roha,
 Murbad, Sangli, Ahmednagar, Nanded, Parbhani, Jalna,
 Jalgaon, Akola, Amravati, Nagpur, Chandrapur (1.00), Mahad,
 Chiplun, Ratnagiri, Kudal, Satara, Islampur, Dhule,
 Osmanabad, Beed, Paithan, Yavatmal, Wardha, Bhandara, Gondia
 (0.75).

It will be seen that the premium on plots, and the water rates charged to under-developed areas are both much lower than those charged in the developed areas. The differential rates are evidently not related to the costs of development in different areas. MIDC is expected to operate on a commercial but no-profit-no-loss basis. Hence, its differential rate structure implies a certain cross subsidisation from the developed to the under-developed areas.

13.15. We may now consider the effect of this expenditure on capital investment and employment. As on 31-3-1974, there were in all 1,445 units in production in the several MIDC industrial areas. From 31-3-1974 to 31-3-1983, 4,561 additional units went into production so that as on 31-3-1983, there were in all 6,006 units in production in the several MIDC industrial estates. In Table 13.4 we give the capital invested in these units. In Table 13.5, we give the number of workers working in units in production. There is of course considerable capital invested in units under construction. In order to keep the analysis simple, we are keeping it out of our consideration. The capital invested in units in production on 31-3-74 amounted to Rs.313.26 crore. The same in units which came in production between 31-3-1974 and 31-3-1983 was Rs.1,305.06 crore bringing the total capital investment in units in production as on 31-3-1983 to Rs.1,618.32 crore. Much of capital invested upto 31-3-1974 (82.25 per cent) was in the BMR areas. However, the capital investment during 1974-83 was better distributed, only 32.83 per cent going to the BMR areas. Hence, we may confine attention to this period. In the following, we summarise the main results.

Capital Investment and Employment in Units going into Production between 31-3-1974 and 31-3-1983

<u>Region</u>	<u>Capital Investment</u> <u>Rs.lakh</u>	<u>Rs.per capita</u>	<u>Employ-ment</u> <u>Number</u>	<u>Per Lakh Pop.</u>	<u>Investment</u> <u>Rs. per Worker</u>
BMR & PMR	428,49	-	51,487	-	82,645
Konkan (excl. BMR)	184,95	266.14	13,601	196	135,983
Western Maharashtra	530,53	225.57	59,779	254	88,748
Marathwada	102,62	105.47	14,460	149	70,968
Vidarbha	58,73	40.95	13,225	92	44,408
Maharashtra (excl. BMR)	876,57	160.72	101,065	185	86,733
Maharashtra	1305,06		152,552		85,549

The per capita capital investment in Konkan and Western Maharashtra is very high; 65.59 per cent and 40.35 per cent above the State average (excluding BMR). In Marathwada it is only 65.62 per cent of State average (excluding BMR). In Vidarbha it is very low, only 25.48 per cent of State average (excluding BMR). However, the differences in the employment generated per lakh of population are much smaller because evidently the investment in Konkan is much more capital intensive requiring Rs.136,000 of investment per worker as compared to about Rs.89,000 in Western Maharashtra, Rs.70,000 in Marathwada and

Table 13.4

Development of MIDC Industrial Areas : Capital Investment of Units
in Production.

District	Upto March 31, 1974 (Rs. in lakh)	1-4-74 to 31-3-83	Upto March 31, 1983	Per Capita of 1981 Population		
				Upto March 31, 1974 (Rs.)	1-4-74 to 31-3-83 (Rs.)	Upto March 31, 1983 (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay (incl. BMR)	22,117	42,849	64,966	268.30	519.80	788.10
2. Thane	113	9,433	9,546	3.37	281.45	284.42
3. Raigad	198	6,987	7,185	13.32	470.05	483.37
4. Ratnagiri	97	2,075	2,172	4.59	98.28	102.87
<u>KONKAN</u> (excl. G.B.+ BMR)	408	18,495	18,903	5.87	266.14	272.01
5. Nashik	1,566	12,454	14,020	52.34	416.28	468.62
6. Dhule	61	256	317	2.98	12.49	15.47
7. Jalgaon	16	2,249	2,266	0.62	85.90	110.52
8. Ahmednagar	-	3,656	3,656	-	134.99	134.99
9. Pune	3,650	31,160	34,810	87.65	748.23	835.88
10. Satara	21	1,176	1,197	1.03	57.68	58.71
11. Sangli	247	429	676	13.49	23.43	36.92
12. Solapur	-	586	586	-	22.45	22.45
13. Kolhapur	32	1,097	1,129	1.28	43.77	45.05
<u>WESTERN MAHARASHTRA</u>	5,593	53,053	58,656	23.78	225.57	249.39
14. Aurangabad	908	9,748	10,656	37.31	400.59	437.90
15. Parbhani	-	113	113	-	6.18	6.18
16. Beed	16	126	142	1.08	8.48	9.56
17. Nanded	566	257	823	32.36	14.69	47.05
18. Osmanabad	-	108	108	-	4.84	4.84
<u>MARATHWADA</u>	1,490	10,262	11,716	15.32	105.47	120.42
19. Buldhana	-	83	83	-	5.50	5.50
20. Akola	150	662	812	8.21	136.24	44.45
21. Amravati	-	182	182	-	9.78	9.78
22. Yavatmal	-	13	13	-	0.75	0.75
23. Wardha	-	156	156	-	16.83	16.83
24. Nagpur	495	3,372	3,867	19.12	130.25	149.37
25. Bhandara	-	13	13	-	0.71	0.71
26. Chandrapur	1,073	1,392	2,465	52.20	67.72	119.92
<u>VIDARBHA</u>	1,718	5,873	7,591	11.98	40.95	52.93
<u>MAHARASHTRA STATE</u>	31,326	130,506	161,832	49.89	207.86	257.75
<u>MAHARASHTRA STATE</u> (excl. BMR.)	9,209	87,657	96,866	16.88	160.72	177.60

Table 13.5

Development of MIDC Industrial Areas : Number of Workers in Units
in Production.

District	Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983	Per Lakh of 1981 Population		
				Upto March 31, 1974	1-4-74 to 31-3-83	Upto March 31, 1983
1	2	3	4	5	6	7
1. Greater Bombay (incl. BMR)	51,007	51,487	102,494	618.76	624.58	1,243.34
2. Thane	142	7,113	7,255	4.24	212.23	216.47
3. Raigad	676	3,838	4,514	45.48	258.20	303.68
4. Ratnagiri	393	2,650	3,043	18.61	125.51	144.12
KONKAN						
(excl. G.B.+ BMR)	1,211	13,601	14,812	17.43	195.72	213.15
5. Nashik	6,127	19,211	25,338	204.80	642.13	846.93
6. Dhule	250	255	505	12.19	12.44	24.63
7. Jalgaon	361	2,006	2,367	13.79	76.62	90.40
8. Ahmednagar	-	4,444	4,444	-	164.09	164.09
9. Pune	11,521	24,119	35,640	276.65	579.16	855.81
10. Satara	128	2,005	2,133	6.28	98.35	104.63
11. Sangli	531	1,154	1,685	29.00	63.02	92.02
12. Solapur	-	3,114	3,114	-	119.30	119.30
13. Kolhapur	298	3,471	3,769	11.89	138.49	150.38
WESTERN MAHARASHTRA	19,216	59,779	78,995	81.70	254.17	335.87
14. Aurangabad	3,880	13,986	17,866	159.45	574.75	734.20
15. Parbhani	-	277	277	-	15.14	15.14
16. Beed	104	269	373	7.00	18.10	25.10
17. Nanded	1,315	(-) 207	1,108	75.17	(-) 11.83	63.34
18. Osmanabad	-	135	135	-	6.05	6.05
MARATHWADA	5,299	14,460	19,759	54.46	148.63	203.09
19. Buldhana	-	194	194	-	12.86	12.86
20. Akola	196	2,095	2,291	10.73	114.67	125.40
21. Amravati	-	384	384	-	20.63	20.63
22. Yavatmal	-	37	37	-	2.13	2.13
23. Wardha	-	578	578	-	62.38	62.38
24. Nagpur	1,197	9,505	10,702	46.24	367.16	413.40
25. Bhandara	-	35	35	-	1.90	1.90
26. Chandrapur	1,145	397	1,542	55.70	19.31	75.01
VIDARBHA	2,538	13,225	15,763	17.69	92.21	109.90
MAHARASHTRA STATE	79,271	152,552	231,823	126.26	242.98	369.24
MAHARASHTRA STATE (excl. GB.)	28,264	101,065	129,329	51.82	185.30	237.12

Rs.45,000 in Vidarbha. Nevertheless, it is evident that, in terms of investment attracted and employment generated on a per capita basis, the net effect of the MIDC industrial areas is very largely concentrated in Western Maharashtra and very little in Vidarbha.

13.16. We shall next review financial assistance given by SICOM. SICOM provides financial assistance mainly in the form of long term loans but also to a smaller extent in the form of short term loans, and underwriting/direct subscription of capital issue. As on 1-4-1983, SICOM had sanctioned assistance to 1,469 units. It amounted to Rs.306.23 crore. Of this Rs.204.55 crore was actually disbursed. The details are as under:

<u>Financial Assistance by SICOM upto March 31,1983</u>		
	<u>(Rs. crore)</u>	
	<u>Amount Sanctioned</u>	<u>Amount Disbursed</u>
Long term loans	265.85	172.26
Short term loans	20.97	20.04
Underwriting/direct subscription	8.19	5.33
Capital participation	11.21	6.92
Total	306.23	204.55

13.17. The amount of assistance disbursed upto 31-3-1974 was Rs.30.63 crore. Thus during the nine years, 1974-83, SICOM disbursed assistance amounting to Rs.173.92 crore. In Table 13.6 we give the amount of assistance disbursed by SICOM in different districts upto 31-3-1974, during 1974-83, and upto 31-3-1983. We may first summarise the same:

Percentage distribution of financial assistance disbursed by SICOM

<u>Region</u>	<u>Upto 31-3-1974</u>	<u>During 1974-83</u>	<u>Upto 31-3-1983</u>
Konkan (excl. BMR)	18.00	38.48	35.42
Western Maharashtra (excl. PMR)	31.62	29.34	29.68
Marathwada	19.65	12.80	13.82
Vidarbha	26.67	18.00	19.29
Total	100.00	100.00	100.00

13.18. As mentioned earlier, the Bombay and Pune Metropolitan Regions are excluded from the jurisdiction of SICOM. Hence, the Konkan region shown above excludes BMR and the Western Maharashtra excludes PMR. Clearly, SICOM has greatly increased its assistance to Konkan region, taking its share from 18.00 per cent in 1974 to 35.42 per cent in 1983, much of it in areas

Table 13.6

Financial Assistance Disbursed by SICOM

District	Upto Mar. 31, 1974		During 1974-83		Upto Mar. 31, 1983	
	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	265.60	7.92	3,858.56	115.13	4,124.16	123.05
3. Raigad	187.94	12.64	2,114.43	142.25	2,302.37	154.89
4. Ratnagiri	97.69	4.63	720.07	34.10	817.76	38.73
KONKAN						
(excl. G.B.)	551.23	7.93	6,693.06	96.31	7,244.29	104.24
5. Nashik	423.77	14.16	1,600.43	53.50	2,024.20	67.66
6. Dhule	18.21	0.88	123.21	6.01	141.42	6.89
7. Jalgaon	6.93	0.26	613.33	23.42	620.26	23.68
8. Ahmednagar	69.61	2.57	1,240.76	45.81	1,310.37	48.38
9. Pune	28.89	0.69	524.47	12.59	553.36	13.28
10. Satara	110.47	5.42	349.02	17.12	459.49	22.54
11. Sangli	20.39	1.11	73.54	4.02	94.03	5.13
12. Solapur	230.07	8.81	228.37	8.75	458.44	17.56
13. Kolhapur	60.07	2.40	349.55	13.95	409.62	16.35
WESTERN MAHARASHTRA	968.41	4.12	5,102.78	21.70	6,071.19	25.82
14. Aurangabad	549.97	22.60	2,014.77	82.80	2,564.74	105.40
15. Parbhani	-	-	0.24	0.01	0.24	0.01
16. Beed	-	-	10.25	0.69	10.25	0.69
17. Nanded	51.00	2.92	200.00	11.43	251.00	14.35
18. Osmanabad	0.50	0.02	0.35	0.01	0.85	0.03
MARATHWADA	601.47	6.18	2,225.61	22.88	2,827.08	29.06
19. Buldhana	21.88	1.45	48.61	3.22	70.49	4.67
20. Akola	2.12	0.12	161.87	8.86	163.99	8.98
21. Amravati	0.77	0.04	47.96	2.58	48.73	2.62
22. Yavatmal	5.20	0.30	0.38	0.02	5.58	0.32
23. Wardha	30.72	3.31	2.68	0.29	33.40	3.60
24. Nagpur	649.30	25.08	1,070.49	41.36	1,719.79	66.43
25. Bhandara	0.52	0.03	465.04	25.31	465.56	25.34
26. Chandrapur	106.29	5.17	1,332.74	64.83	1,439.03	70.00
VIDARBHA	816.80	5.69	3,129.77	21.82	3,946.57	27.51
More than One District*	125.00		249.68		374.68	
MAHARASHTRA STATE (excl. G.B.)	3,062.87	5.62	17,391.94	31.88	20,454.81	37.50

* Not allocable to individual districts

adjoining BMR. The share of Western Maharashtra has remained around 30 per cent. The share of Marathwada declined from 19.65 per cent in 1974 to 13.82 per cent in 1983. The share of Vidarbha declined even more, from 26.67 per cent in 1974 to 19.19 per cent in 1983. The decline in the share of Vidarbha between 1974 and 1983 was mainly because earlier there was a disproportionate concentration of SICOM's assistance in Nagpur, as on 31-3-1974, more than 20 per cent of SICOM's assistance was in Nagpur. Since then, except for the large concentration in Konkan, SICOM's assistance on a per capita basis appears to be evenly distributed between the other three regions. It is Rs.96.31 in Konkan, Rs.21.70 in Western Maharashtra, Rs.22.88 in Marathwada and Rs.21.82 in Vidarbha.

13.19. Within the regions, the SICOM assistance is, of course, not so evenly distributed between the districts. Districts with relatively high per capita SICOM assistance are : Aurangabad (Rs.82.80), Chandrapur (Rs.64.83), Nashik (Rs.53.59), Ahmednagar (Rs.45.81), Nagpur (Rs.41.36), and Ratnagiri (Rs.34.10) leaving aside Thane (Rs.115.13) and Raigad (142.25) where it is of course very high.

Maharashtra State Finance Corporation:

13.20. We may review similarly the financial assistance provided by the Maharashtra State Finance Corporation (MSFC). The level of operations of MSFC is about the same as that of SICOM. The assistance disbursed by MSFC amounted to Rs.49.27 crore upto 31-3-74; Rs.181.21 crore during 1974-83; and Rs.230.48 crore upto 31-3-1983. The relevant data by districts are given in Table 13.7. Because Bombay and Pune regions are not excluded from the operations of the MSFC, as they are excluded from the jurisdiction of SICOM, they account for a substantial share in the assistance given by MSFC. But it has gone down remarkably; the share of Greater Bombay and Pune districts was 47.7 per cent in 1974 but it came down to a mere 21.3 in 1983. As in SICOM assistance, the share of Thane and Raigad increased but not to the same extent. The share of Western Maharashtra, excluding Pune district, was more or less maintained. The shares of Marathwada and Vidarbha not only did not decline, as they did in the case of SICOM assistance, but actually increased sizably, from 16.2 per cent in 1974 to 23.4 per cent in 1983. One might say that this was because the share of Marathwada and Vidarbha in MSFC assistance upto 1974 was very small (16.2 per cent) compared to their share (46.32) in SICOM assistance upto 1974. If we examine the pattern of assistance by SICOM and MSFC during 1974-83, it appears to be very similar: Out of SICOM assistance during this period, about 40 per cent went to Konkan, 30 per cent to Western Maharashtra and 30 per cent to Marathwada and Vidarbha; of the MSFC assistance during this period, about 50 per cent went to Greater Bombay and Konkan, about 25 per cent to Western Maharashtra and 25 per cent to Marathwada and Vidarbha together. Further, like SICOM assistance, MSFC assistance during this period was more or less evenly distributed between Western Maharashtra, Marathwada and Vidarbha on a per capita basis. It was Rs.90.11 in Konkan, Rs.20.56 in Western Maharashtra, Rs.20.75

Table 13.7

Financial Assistance Disbursed by MSFC

District	Upto Mar. 31, 1974		During 1974-83		Upto Mar. 31, 1983	
	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)	Amount Disbursed (Rs. Lakh)	Per Capita of 1981 population (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	1,591.56	19.31	2,432.91	29.51	4,024.47	48.82
2. Thane	636.18	18.98	4,062.55	121.21	4,698.73	140.19
3. Raigad	169.44	11.40	1,432.57	96.37	1,602.01	107.77
4. Ratnagiri	163.99	7.77	766.72	36.31	930.71	44.08
KONKAN						
(excl. G.B.)	969.61	13.95	6,261.84	90.11	7,231.45	104.06
5. Nashik	107.10	3.58	638.73	21.35	745.83	24.93
6. Dhule	39.91	1.95	157.15	7.66	197.06	9.61
7. Jalgaon	50.16	1.92	276.85	10.57	327.01	12.49
8. Ahmednagar	119.71	4.42	479.53	17.70	599.24	22.12
9. Pune	713.32	17.13	1,418.66	34.06	2,131.98	51.19
10. Satara	36.50	1.79	347.00	17.02	383.50	18.81
11. Sangli	125.21	6.84	358.33	19.56	483.54	26.40
12. Solapur	93.31	3.57	242.47	9.29	335.78	12.86
13. Kolhapur	283.50	11.31	915.81	36.54	1,199.31	47.85
WESTERN MAHARASHTRA	1,568.72	6.67	4,834.53	20.56	6,403.25	27.23
14. Aurangabad	188.74	7.76	1,600.45	65.77	1,789.19	73.53
15. Parbhani	63.29	3.46	54.43	2.98	117.72	6.44
16. Beed	18.14	1.22	100.19	6.74	118.33	7.96
17. Nanded	70.36	4.02	125.82	7.19	196.18	11.21
18. Osmanabad	21.34	0.96	137.59	6.17	158.93	7.13
MARATHWADA	361.87	3.72	2,018.48	20.75	2,380.35	24.47
19. Buldhana	12.85	0.85	136.47	9.05	149.32	9.90
20. Akola	38.72	2.12	180.89	9.90	219.61	12.02
21. Amravati	27.14	1.46	218.57	11.74	245.71	13.20
22. Yavatmal	27.01	1.55	72.80	4.19	99.81	5.74
23. Wardha	25.06	2.70	88.05	9.50	113.11	12.20
24. Nagpur	244.07	9.43	1,248.72	48.23	1,492.79	57.66
25. Bhandara	27.56	1.50	190.87	10.39	218.43	11.89
26. Chandrapur	32.98	1.60	437.00	21.26	469.98	22.86
VIDARBHA	435.39	3.03	2,573.37	17.95	3,008.76	20.98
MAHARASHTRA STATE	4,927.15	7.85	18,121.13	28.86	23,048.28	36.71
MAHARASHTRA STATE (excl. G.B.)	3,335.59	6.12	15,688.22	28.76	19,023.81	34.88

in Marathwada and Rs.17.95 in Vidarbha. Thus, MSFC assistance in Western Maharashtra and Marathwada on a per capita basis is nearly equal and about the same as SICOM assistance, namely, about Rs.20 per capita. However, while SICOM assistance in Vidarbha was nearly the same as in Western Maharashtra and Marathwada, MSFC assistance in Vidarbha was somewhat smaller, about 15 per cent lower than that in Western Maharashtra and Marathwada.

Package Scheme of Incentives:

13.21. Besides setting up MIDC and SICOM, Government of Maharashtra also introduced a scheme of incentives called the Package Scheme of Incentives under which it offered a set of incentives for setting up industries in the underdeveloped and developing areas of the State outside Bombay and Pune Metropolitan Regions. The Package Scheme of Incentives was first initiated in 1964 and was modified successively in 1969, 1973, 1976, 1979, and finally in 1983. For convenience of reference, we give in Annexures A-1, A-2, and A-3, a comparative statement of various incentives given under the Package Scheme as successively modified. The initial scheme as introduced in 1964 offered the following incentives: (i) 75 per cent contribution towards the cost of feasibility study of a project; (ii) Electricity tariff concession equivalent to difference between the MSEB's tariffs and Tata's tariffs in Bombay; (iii) Sales Tax refund limited to 8 per cent of the fixed assets of the unit; (iv) Octroi exemption; (v) Training of labour; (vi) 10 per cent grant out of 25 per cent of industry's share under the subsidised industrial housing scheme; (vii) Preferential treatment in stores purchase by State Government; (viii) Exemption from water royalties and non-agricultural assessments. All the above incentives except (ii) and (v) were available for a period of 13 years from the date of industrial licence or registration; (ii) and (v) were available for a period of five and three years respectively.

13.22. The Package Scheme was considerably modified with effect from April 1, 1969. The nature of Sales Tax Incentive which was earlier being given in the form of outright grant was changed into an interest free loan without security for a period of 18 years. The other incentives remained the same but the period of incentive was reduced from 13 years to 6 years from the date of start of production. A new incentive as an alternative to the Sales Tax Incentive was also introduced, which is since then known as Part-II of the Scheme. The Sales Tax Incentive admissible as hitherto after the unit went into production was continued as Part-I. Under Part-II Scheme, only an existing industrial unit in the developed areas which paid sales tax of more than Rs.9 lakh (or Rs.3 lakh if the unit were in the developing area) in previous three years was eligible. The quantum of sales tax loan was limited to 25% of the Fixed Assets to be created by them in the developing regions or 3 years sales tax paid whichever was less. This incentive was meant to be part of the Means of Finance for the project. Such loan was interest free, without security and repayable after 18 years.

Both these incentives were mutually exclusive and the units opting for Part-II were not eligible to Part-I and vice-versa.

13.23. In 1968, the Government of India appointed two working groups: one for recommending criteria for identification of industrially backward areas (Shri B.D. Pande, as the Chairman) and the other for recommending the fiscal and financial incentives for starting industries in the backward areas (Shri N.N. Wanchoo as the Chairman). The Pande working group recommended that district should be taken as a unit for the purpose of identification of industrially backward region or area. Based on the criteria laid down by the Pande Committee in so far as Maharashtra State was concerned, the following 17 districts were classified as backward districts (originally there were 13 districts, which have now been split into 17 districts):

Konkan Region: Raigad, Ratnagiri, Sindhudurg.

Western Maharashtra Region: Jalgaon, Dhule.

Marathwada Region: Aurangabad, Jalna, Beed, Parbhani,
Nanded, Osmanabad, Latur.

Vidarbha Region: Buldhana, Yavatmal, Bhandara, Chandrapur,
Gadchiroli.

These backward districts became eligible for concessional finance from the All India Term Lending Institutions such as IDBI, ICICI and also for benefit under Section 80 HH of the Income Tax Act. The Government of India had notified the Central Investment Subsidy Scheme in the year 1970 under which the erstwhile Ratnagiri District alone was considered eligible. In August, 1971 two more districts of Maharashtra, viz. Aurangabad and Chandrapur were included in the list of eligible districts.

Under the Government of India's Central Investment Subsidy Scheme the subsidy @ 10% of the Fixed Capital Investment subject to the ceiling of Rs.5 lakh was admissible as a grant to investments made in new units as well as expansions set up in the eligible districts. The rate of subsidy was revised with effect from 1-3-1973 to 15% of the Fixed Capital Investment subject to a ceiling of Rs.15 lakh.

13.24. Government of Maharashtra modified the Package Scheme of Incentives in the year 1973. Under the 1973 Scheme, effective from August 15, 1973 Graded Incentives were introduced for the first time, linking the quantum/scales of incentives with the backwardness of the region. Thus Industries going to the interior and most backward region were eligible for incentives on higher scales than those located in the less backward region. For the purpose of the 1973 Package Scheme the developing region (i.e. the region outside Bombay-Thane-Pune belt) was divided, taking a Taluka as the unit, in three groups, Group II, Group III and Group IV and the various incentives were considered on a graded scale as shown in the table appended.

13.25. The 1973 Package Scheme was modified with effect from August 1, 1976 introducing further changes. The developing region was divided in two groups, Group 'B' and Group 'C' and the incentives were allowed in a graded manner. One of the changes effected was introduction of employment incentive as apart of the sales tax incentives under Part-I. The sales tax incentives under Part-I was admissible as follows:

4% of the Fixed Assets plus Employment Incentives at Rs.1200/- per job per year; or, the aggregate of the sales tax paid during the year; or, 8% of the fixed assets; whichever was lower.

13.26. As part of the 1976 Scheme, the Government of Maharashtra also introduced Special Incentives on the lines of the Central Investment Subsidy Scheme of Government of India. The Special Capital Incentive was admissible to eligible units under the 1976 Scheme set up in the MIDC Area/Government Industrial Estates/Co-operative Industrial Estates in Group 'B' and Group 'C' areas other than the districts where Central Subsidy was admissible, at 15 per cent of the fixed capital investment subject to ceiling of Rs.15.00 lakh and was allowed as an interest free unsecured loan repayable after 12 years in six equal annual instalments. The respective Regional Development Corporations were appointed Agents for operating the Scheme in respect of Small Scale Industrial Units under their respective jurisdiction. SICOM continued to operate the Scheme for Medium and Large Scale units.

13.27. The 1976 Package Scheme was modified with effect from August 1, 1979. The developing regions were reclassified in three groups, Group 'B', Group 'C' and Group 'D'. As before the various incentives were allowed in a graded manner.

The major changes introduced were as follows:

- (a) The sales tax incentives under Part-I was allowed at the option of the eligible unit either by way of exemption from payment of sales tax or by way of deferral of sales tax, instead of interest free loan as under the earlier schemes. However, the sales tax incentives under Part-II continued to be allowed as interest free loan repayable after 12 years in six equal annual instalments.
- (b) A new concept of Pioneer Unit was introduced. A new large scale unit being set up in any taluka in Group 'C' area where there was no existing unit with net fixed assets exceeding Rs.5 crore (for Group 'D' area, this limit was Rs.2 crore) was considered eligible for Pioneer Status. The scales of incentives admissible to Pioneer Unit were maximum as shown in the Table.
- (c) Expansion of an existing unit was made eligible for incentives. Moreover, a concept of Near New Unit was introduced to cover the cases where an existing unit set up, at the same location, another unit of comparable size

involving different manufacturing facilities and products from those of the existing unit. The scales of incentives to such Near New Unit were somewhat higher than those admissible for more expansion (but less than those admissible for a Pioneer Unit).

- (d) MIDC incentive at 5 per cent of the Fixed Capital Investment subject to a ceiling of Rs.5 lakh was introduced.

13.28. The 1979 Package Scheme was modified with effect from April 1, 1983. The 1983 Scheme which is presently in operation is to continue for a period of 5 years up to 31-3-1988. The major changes introduced under the 1983 Scheme are as follows:

- (a) The sales tax incentives under Part-II will not be allowed as an interest free loan as hitherto but it will be allowed only by way of deferral. The sales tax incentives as admissible in accordance with the eligibility will be first quantified. The existing unit will be permitted to defer its current sales tax liability upto the limit of the amount of incentives so quantified.
- (b) The concept of the Pioneer unit has been enlarged. In addition to the Pioneer Units as per the norms under the 1979 Scheme very large units with investment in excess of Rs.25 crores set up after April 1, 1983 will also be conferred Pioneer Status in any of the areas covered under Group 'C' or Group 'D', even though in the taluka where such units are set up there already are units qualifying for Pioneer Status.

13.29. With effect from April 1, 1983, the Government of India also introduced changes in their policy. The backward districts have been classified into three categories A, B and C. The Category A covers 'No Industry' Districts. (In Maharashtra, there is no 'No Industry' District under Category A). Category B covers the districts where Central Subsidy was available prior to 31-3-1983 (Other than the districts covered under Category A). In Maharashtra, the following districts were eligible for Central Subsidy: Aurangabad, Jalna, Ratnagiri, Sindhudurg, Chandrapur and Gadchiroli. Category C covers the remaining backward districts after excluding the districts from Category A and Category B. Insofar as Maharashtra is concerned the remaining 11 out of 17 districts referred to above (i.e. after excluding the districts falling under Category B) are covered. With effect from August 1, 1983, Government of India's rates of subsidy have also been modified. As per the modified Scheme, eligible units in A category districts are eligible to Central Subsidy at 25 per cent of the Fixed Capital Investment subject to ceiling of Rs.25 lakh; in B category districts 15 per cent upto a ceiling of Rs.15 lakh and in C category districts 10 per cent upto ceiling of Rs.10 lakh. The revised Scheme, however, further provides that Blocks/Talukas/Urban agglomerations/ extensions of townships in category B & C Districts where the investments have exceeded

Rs.30 crore as on 31-3-1983 will not qualify for any concessions or Central Subsidy.

13.30. In Table 13.8, we give the assistance given under the Package Scheme of Incentives of the State Government and the Central Subsidy Scheme. The assistance under the Scheme of the State Government to large and medium industries is disbursed by the SICOM while to the small scale industries by the Regional Development Corporations. The assistance disbursed by SICOM amounted to Rs.70.50 crore; Rs.6.85 crore upto 31-3-1974 and Rs.63.64 crore between 1-4-1974 and 31-3-1983. Of the Rs.6.85 crore disbursed upto 31-3-1974, 42.75 per cent went to Vidarbha. Since then the regional distribution of the assistance is quite different. Hence, we have shown it broken in the two periods. The assistance disbursed by the Regional Development Corporations amounted to Rs.6.35 crore and all of it is distributed between 1-4-1976 and 31-3-1983. In the following, we summarise the assistance given under the Package Scheme of Incentives of the State Government during 1974-83.

<u>Region</u>	<u>Assistance</u>	
	<u>Rs. lakh</u>	<u>Rs. per capita</u>
Konkan (excl. Gr. Bombay)	2,362.58	34.00
Western Maharashtra	2,846.54	12.11
Marathwada	731.89	7.52
Vidarbha	1,057.96	7.38
Total	6,998.97	12.83

Thus per capita quantum of assistance under the Package Scheme of Incentives during 1974-83 was much larger in Konkan. It was also larger in Western Maharashtra than in Marathwada and Vidarbha. Central Subsidy was of course confined to only three districts. Of the total Central Subsidy of Rs.8.75 crore, Rs.5.89 crore went to Aurangabad. Central Subsidy is included in the last column of the Table giving the total assistance.

Aggregate Assistance:

13.31. We may now bring together expenditure incurred by MIDC on the development of its industrial areas, financial assistance given by SICOM and MSFC, assistance given under the Package Scheme of Incentives and the Scheme of Central Subsidy during the period 1974-83. These are brought together in Table 13.9. Though we have added together the expenditure incurred by the MIDC and the financial assistance provided by the SICOM, we should note that, in so far as some of the SICOM assistance goes to pay MIDC for its plots and services, there is likely to be some overlap between the two. In the last column of the Table, the total assistance in different districts is expressed on a per capita basis. For the State as a whole, the assistance comes to Rs.91.06 per capita. In Konkan, the per capita assistance is very large (Rs.274.42) almost three times the State average. In the other three regions, it is not very unequal: Rs.68.37 in

Table 13.8

Assistance under Package Scheme of Incentives and Central Subsidy
(Rs. Lakh)

District	Disbursed by SICOM			Disbursed by Regional Corpora- tions 1976-1983	Total * Cols. (4)+(5)
	Upto 31-3-74	During 1974-83	Upto 31-3-83		
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	20.09	1,204.66	1,224.75	123.93	1,348.68
3. Raigad	32.42	753.84	786.26	23.95	810.21
4. Ratnagiri	1.67	248.62	250.29	7.58	454.66
<u>KONKAN</u>	<u>54.18</u>	<u>2,207.12</u>	<u>2,261.30</u>	<u>155.46</u>	<u>2,613.55</u>
(excl. G.B.)					
5. Nashik	127.27	887.20	1,014.47	52.33	1,066.80
6. Dhule	9.60	106.48	116.08	9.03	125.11
7. Jalgaon	17.76	172.33	190.09	53.10	243.19
8. Ahmednagar	14.24	564.59	578.83	66.41	645.24
9. Pune	6.56	229.68	236.24	22.03	258.27
10. Satara	14.97	96.31	111.28	16.58	127.86
11. Sangli	9.03	100.13	109.16	11.50	120.66
12. Solapur	24.37	183.92	208.29	7.96	216.25
13. Kolhapur	27.77	238.30	266.07	28.66	294.73
<u>WESTERN MAHARASHTRA</u>	<u>251.57</u>	<u>2,578.94</u>	<u>2,830.51</u>	<u>267.60</u>	<u>3,098.11</u>
14. Aurangabad	70.81	554.31	625.12	35.41	1,249.04
15. Parbhani	-	0.55	0.55	8.63	9.18
16. Beed	0.46	7.45	7.91	10.37	18.28
17. Nanded	9.14	39.51	48.65	18.92	67.57
18. Osmanabad	6.26	38.50	44.76	18.24	63.00
<u>MARATHWADA</u>	<u>86.67</u>	<u>640.32</u>	<u>726.99</u>	<u>91.57</u>	<u>1,407.07</u>
19. Buldhana	10.57	25.58	36.15	4.33	40.48
20. Akola	1.83	121.66	123.49	13.59	137.08
21. Amravati	20.14	29.52	49.66	11.18	60.84
22. Yavatmal	4.07	24.34	28.41	2.81	31.22
23. Wardha	10.97	9.46	20.43	8.05	28.48
24. Nagpur	70.46	358.23	428.69	71.37	500.06
25. Bhandara	0.80	95.88	96.68	8.63	105.31
26. Chandrapur	174.13	273.01	447.14	0.32	537.46
<u>VIDARBHA</u>	<u>292.97</u>	<u>937.68</u>	<u>1,230.65</u>	<u>120.28</u>	<u>1,440.93</u>
<u>TOTAL MAHARASHTRA</u>					
<u>STATE</u>	<u>685.39</u>	<u>6,364.06</u>	<u>7,049.45</u>	<u>634.91</u>	<u>8,559.66</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>685.39</u>	<u>6,364.06</u>	<u>7,049.45</u>	<u>634.91</u>	<u>8,559.66</u>

*Inclusive of Central Subsidy given to Ratnagiri (Rs.196.79 lakh), Aurangabad (Rs.588.51 lakh) and Chandrapur (Rs.90.00 lakh).

Table 13.9

Financial Assistance Disbursed During 1974-83

(Rs. Lakh)

District	MIDC	SICOM	MSFC	Package Scheme of Incen- tives/ Central Subsidy	Total (2+3+4+5)	Per Capita Assis- tance (Rs.)
1	2	3	4	5	6	7
1. Greater Bombay	3,002.57	-	2,432.91	-	5,435.48	65.94
2. Thane	866.88	3,858.56	4,062.55	1,348.68	10,136.67	302.45
3. Raigad	2,094.12	2,114.43	1,432.57	810.21	6,451.33	434.01
4. Ratnagiri	540.87	720.07	766.72	454.66	2,482.32	117.57
<u>KONKAN</u>	<u>3,501.87</u>	<u>6,693.06</u>	<u>6,261.84</u>	<u>2,613.55</u>	<u>19,070.32</u>	<u>274.42</u>
(excl. G.B.)						
5. Nashik	397.10	1,600.43	638.73	1,066.80	3,703.06	123.78
6. Dhule	24.18	123.21	157.15	125.11	429.65	20.96
7. Jalgaon	400.61	613.33	276.85	243.19	1,533.98	58.59
8. Ahmednagar	846.61	1,240.76	479.53	645.24	3,212.14	118.60
9. Pune	714.41	524.47	1,418.66	258.27	2,915.81	70.02
10. Satara	168.23	349.02	347.00	127.86	992.11	48.66
11. Sangli	129.30	73.54	358.33	120.66	681.83	37.23
12. Solapur	87.81	228.37	242.47	216.25	774.90	29.69
13. Kolhapur	275.53	349.55	915.81	294.73	1,835.62	73.24
<u>WESTERN MAHARASHTRA</u>	<u>3,043.78</u>	<u>5,102.78</u>	<u>4,834.53</u>	<u>3,098.11</u>	<u>16,079.20</u>	<u>68.37</u>
14. Aurangabad	537.89	2,014.77	1,600.45	1,249.04	5,402.15	222.00
15. Parbhani	35.01	0.24	54.43	9.18	98.86	5.40
16. Beed	20.66	10.25	100.19	18.28	149.38	10.05
17. Nanded	58.72	200.00	125.82	67.57	452.11	25.84
18. Osmanabad	68.81	0.35	137.59	63.00	269.75	12.09
<u>MARATHWADA</u>	<u>721.09</u>	<u>2,225.61</u>	<u>2,018.48</u>	<u>1,407.07</u>	<u>6,372.25</u>	<u>65.50</u>
19. Buldhana	138.28	48.61	136.47	40.48	363.84	24.11
20. Akola	82.91	161.87	180.89	137.08	562.75	30.80
21. Amravati	72.79	47.96	218.57	60.84	400.16	21.50
22. Yavatmal	43.02	0.38	72.80	31.22	147.42	8.48
23. Wardha	143.19	2.68	88.05	28.48	262.40	28.32
24. Nagpur	252.38	1,070.49	1,248.72	500.06	3,071.65	118.65
25. Bhandara	163.78	465.04	190.87	105.31	925.00	50.34
26. Chandrapur	100.44	1,332.74	437.00	537.46	2,407.64	116.98
<u>VIDARBHA</u>	<u>996.79</u>	<u>3,129.77</u>	<u>2,573.37</u>	<u>1,440.93</u>	<u>8,140.86</u>	<u>56.76</u>
<u>MAHARASHTRA STATE</u>	<u>11,266.10</u>	<u>17,391.94</u>	<u>18,121.13</u>	<u>8,559.66</u>	<u>55,098.11</u>	<u>87.76</u>
<u>MAHARASHTRA STATE</u>	<u>8,263.53</u>	<u>17,391.94</u>	<u>15,688.22</u>	<u>8,559.66</u>	<u>49,662.63</u>	<u>91.06</u>
(excl. G.B.)						

Western Maharashtra, Rs.65.50 in Marathwada and Rs.56.76 in Vidarbha. But within each region, there are districts which have received relatively large assistance. The following is a list of the districts which received assistance above the State Average:

<u>District</u>	<u>Aggregate assistance</u> <u>Rs. per capita</u>
Raigad	434.01
Thane	302.45
Aurangabad	222.00
Nashik	123.78
Nagpur	118.65
Ahmednagar	118.60
Ratnagiri	117.57
Chandrapur	116.98

All India Financial Institutions:

13.32. We have so far considered financial assistance provided by the State level institutions and by the State and Central Governments by way of incentives and subsidy. We shall now consider the assistance given by the all India financial institutions. As mentioned earlier, they are, the Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI), and Industrial Finance Corporations of India (IFCI). These institutions provide mainly direct finance to large industries with fixed assets in new units of more than Rs.2 crore. Of the three institutions, we could obtain districtwise information regarding direct assistance given by IDBI and ICICI; we are sorry that we could not get this information from IFCI. In Table 13.10, we give the districtwise quantum of assistance given by IDBI and ICICI divided into two periods: 1964-65 to 1973-74 and 1974-75 to 1982-83 for IDBI and 1960 to 1973 and 1974 to 1982 for the ICICI. In Col.6 is given the total of the assistance given by the two during broadly 1974-82. In Col.7 the same is expressed per capita of 1981 population.

13.33. It will be noticed that the direct assistance given by IDBI and ICICI during 1974-82 amounts to Rs.767.19 crore of which Rs.214.79 crore which is 28.0 per cent of the total, was given in Greater Bombay. In comparison, of the total assistance given by the State level institutions and by the Central and State Governments only Rs.54.35 crore out of a total of Rs.550.98 crore, which is only 9.9 per cent was given in Greater Bombay. If we exclude Greater Bombay, the level of assistance provided by IDBI and ICICI is a little more than the assistance provided by the State level institutions and Central and State Governments; Rs.101.28 per capita as compared to Rs.91.06 per capita. In the following we list the districts where the per capita assistance given by IDBI and ICICI during 1974-82 is above the State average excluding Greater Bombay (Rs.101.28).

Table 13.10

Financial Assistance Sanctioned by IDBI and ICICI

(Rs. Lakh)

District	IDBI		ICICI		Col.(3) +	Rs. per Capita of
	1964-65 to 1973-74	1974-75 to 1982-83	1960 to 1973	1974 to 1982	Col.(5)	Col.(6)
1	2	3	4	5	6	7
1. Greater Bombay	648.33	10,830.37	7,794.36	10,648.58	21,478.95	260.56
2. Thane	4,022.48	3,486.61	4,126.49	5,789.83	9,276.44	276.78
3. Raigad	92.15	4,857.77	96.54	3,844.70	8,702.47	585.45
4. Ratnagiri	-	278.00	653.40	141.65	419.65	19.88
<u>KONKAN</u>	<u>4,114.63</u>	<u>8,622.38</u>	<u>4,876.43</u>	<u>9,776.18</u>	<u>18,398.56</u>	<u>264.75</u>
(excl. G.B.)						
5. Nashik	353.00	1,974.95	476.07	1,956.62	3,931.57	131.41
6. Dhule	-	527.00	-	100.00	627.00	30.58
7. Jalgaon	-	1,463.00	-	738.07	2,201.07	84.07
8. Ahmednagar	-	633.00	197.20	566.23	1,189.23	43.91
9. Pune	420.00	1,777.51	2,871.18	8,940.49	10,718.00	257.37
10. Satara	-	945.20	-	47.52	992.72	48.69
11. Sangli	-	400.00	168.16	420.59	820.59	44.81
12. Solapur	15.00	1,496.50	20.00	475.50	1,972.00	75.55
13. Kolhapur	42.50	1,071.00	209.97	448.80	1,519.80	60.64
<u>WESTERN MAHARASHTRA</u>	<u>830.50</u>	<u>10,288.16</u>	<u>3,942.58</u>	<u>13,693.82</u>	<u>23,981.98</u>	<u>101.97</u>
14. Aurangabad	283.16	1,468.63	139.98	1,713.95	3,182.58	130.79
15. Parbhani	-	338.00	-	108.00	446.00	24.38
16. Beed	-	955.00	185.00	128.00	1,083.00	72.88
17. Nanded	-	243.00	-	122.00	365.00	20.87
18. Osmanabad	-	355.00	-	170.00	525.00	23.54
<u>MARATHWADA</u>	<u>283.16</u>	<u>3,359.63</u>	<u>324.98</u>	<u>2,241.95</u>	<u>5,601.58</u>	<u>57.58</u>
19. Buldhana	-	-	-	-	-	-
20. Akola	-	86.00	-	59.19	145.19	7.95
21. Amravati	-	-	-	-	-	-
22. Yavatmal	-	300.00	-	150.00	450.00	25.90
23. Wardha	-	470.00	-	108.13	578.13	62.39
24. Nagpur	9.00	1,444.60	312.60	351.64	1,796.24	69.38
25. Bhandara	-	280.00	-	202.00	482.00	26.23
26. Chandrapur	416.00	2,654.96	15.00	1,151.49	3,806.45	185.17
<u>VIDARBHA</u>	<u>425.00</u>	<u>5,235.56</u>	<u>327.60</u>	<u>2,022.45</u>	<u>7,258.01</u>	<u>50.60</u>
<u>MAHARASHTRA STATE</u>	<u>6,301.62</u>	<u>38,336.10</u>	<u>17,265.96</u>	<u>38,382.98</u>	<u>76,719.09</u>	<u>122.19</u>
<u>MAHARASHTRA STATE</u>	<u>5,653.29</u>	<u>27,505.73</u>	<u>9,471.59</u>	<u>27,734.40</u>	<u>55,240.13</u>	<u>101.28</u>
(excl. G.B.)						

<u>District</u>	<u>Assistance by IDBI & ICICI</u> <u>during 1974-82</u> <u>(Rs. per capita)</u>
Raigad	585.45
Thane	276.89
Pune	257.37
Chandrapur	185.17
Nashik	131.41
Aurangabad	130.79

It will be noticed that all these districts, except Pune, also received above the average assistance from the State level institutions and the Central and State Governments. But, Nagpur, Ahmednagar, and Ratnagiri which received above the average assistance from the State level institutions do not figure in the list. We may say that, except for the relatively larger assistance by IDBI and ICICI in Greater Bombay, the regional pattern of assistance provided by the two sets of institutions is broadly similar. The difference between the two arises from the fact that the direct assistance from the IDBI and ICICI goes mainly to large industries.

Industrial Location Policy:

13.34. We shall now examine the Industrial Location Policy of the Government of Maharashtra aimed at restraining the industrial growth in the Bombay Metropolitan Region. The policy was announced on 26-12-1974 and has been in operation since then with certain modifications made from time to time. For the purpose of the location policy, the Bombay Metropolitan Region (BMR) is divided into four Zones as under:

Zone I: Bombay Island upto Mahim Creek on Western Railway and Sion on Central Railway.

Zone II: Extended suburbs of Greater Bombay and Thane and Mira bounded by Vasai Creek on the North and Ulhas River and Thane Creek on the East.

Zone III: The New Bombay Area (CIDCO).

Zone IV: The remaining areas of Bombay Metropolitan Region.

To prevent haphazard location of industrial units, all industrial units, whether large/medium/small, were required to obtain a No Objection Certificate (NOC) from the Directorate of Industries, for setting up new units or for the expansion/shifting of existing ones.

13.35. The location policy is defined separately for each of these Zones. As mentioned above, the policy was first announced on 26-12-1974. Subsequently, it was revised first on 27-1-1977; for the second time on 28-8-1977; for the third time on 28-2-1979; and for the fourth time on 15-12-1981. In the following,

we shall describe the policy for each Zone as revised from time to time.

13.36. For Zone I, the policy as announced on 26-12-1974 was (i) No new industries, whether large, medium or small-scale, or expansion of existing industries in the Zone to be permitted; (ii) Small Scale Industries providing essential consumer services such as bakeries, flour mills, laundries only were permitted; (iii) In genuine cases, marginal expansion of textile mills was permitted; and (iv) Industrial units in non-conforming areas in the Zone were to be shifted to the conforming areas of Zones II, III and IV. The policy was modified on 27-1-1977, as under. (i) While no expansion of existing units would be allowed as before, permission would be given in genuine cases for replacement/renovation/diversification/balancing equipment provided no additional labour/water/built-up area/space was involved and effluent disposal and anti-pollution measures were strictly enforced. Research and Development activities (not involving major new investment) adjacent to the existing production unit would be considered on merits; (ii) While, earlier, industrial units in non-conforming areas of this Zone were to be shifted to conforming areas of Zones II, III and IV, now Large and Medium units in conforming and non-conforming areas both would be permitted to shift to the conforming areas in Zone II (with certain restrictions) and in Zones III and IV, without any restrictions. Further, Small Scale Industries in non-conforming areas of this Zone would now be allowed to shift to the conforming areas of the same Zone without any expansion and Small Scale Industries in both conforming and non-conforming areas of this Zone would be allowed to shift to the conforming area of Zone II with expansion upto the limit of Small Scale units; (iii) Industrial units in non-conforming areas of this Zone would be allowed to shift their units in vacant galas in the industrial estates in this Zone. "Industrial Estates" in this context means industrial buildings with a number of galas to which permission was granted in the form of No Objection Certificates (NOC) for construction prior to 31-7-1975.

13.37. The policy was further revised and relaxed on 28-8-1977. (i) Whereas, earlier, the industrial units in non-conforming areas were to be shifted out, now they would not be so compelled provided they did not create serious nuisance or danger to public health; (ii) Replacement/Renovation/Diversification/Balancing Equipments/Modernisation would be permitted even if it involved marginal increase in built-up area/labour/water requirements; (iii) New Small Scale Industrial (SSI) units would be permitted in vacant galas; (iv) New SSI units, preferably of a type for which Bombay location was essential, would be permitted in unreserved galas as also reserved galas not occupied by shifting SSI units. The policy was again revised on 28-2-1979. Now (i) Replacement/Renovation/Diversification/etc. not amounting to expansion would be permitted; (ii) Expansion of existing SSI units would be permitted upto a limit of Rs.10 lakh provided there was no additional construction; (iii) New Service Industries and SSI units would be permitted in the galas which would become available as a result of NOCs granted for their

construction upto 31-7-1975. Finally, by the revision made on 15-12-1981, while investment of new SSI units would be restricted to Rs.10 lakh, existing SSI units would be permitted expansion in approved industrial areas in Zone II upto a limit of Rs.20 lakh taken together at the two places.

13.38. The situation in Zone II was only a little better than that in Zone I. Hence, the initial policy for Zone II, as announced on 26-12-1974, was quite similar to the policy for Zone I as modified on 27-1-1977. In particular, (i) No new large or medium-scale units would be permitted; (ii) Existing textile mills would be permitted marginal expansion; (iii) In the case of other units, expansion would be permitted in exceptional cases with due regard to additional water and power requirements; (iv) units shifting from non-conforming areas of Zones I and II to the conforming areas in this Zone would be permitted to expand/diversify/balance their production schedule; (iv) The main effort would be to shift units in non-conforming areas of Zones I and II to Zones III and IV. The revision of policy made on 27-1-1977 did not much affect this Zone. Indeed, because of relaxations made by that revision in the policy for Zone I, the policy for Zones I and II became quite similar.

13.39. The revision of policy on 28-8-1977 made the policy in Zone II somewhat more permissive than in Zone I. (i) Relaxations made in respect of Replacement/Renovation/etc. and in respect of units in non-conforming areas in Zone I were also made applicable to Zone II; (ii) Further, in Zone II, Research and Development activity would be permitted without any condition if it was an integral part of an existing unit; (iii) Expansion of existing large and medium scale industries and of SSI units (to bring them into the medium scale category) was permitted if such expansion was necessary to make the unit viable; (iv) Construction of new industrial estates for service industries as well as SSIs would be permitted. As per the policy dated 27th January 1977, Zone I and Zone II were altogether closed for locating any new industry whether large, medium or small. Even ancillary small scale units were not allowed to come up. By implication no fresh construction is permitted in these Zones for setting up of small scale and ancillary units; however, as per the policy dated 20-8-1977, construction of new industrial estates for new industries in the earmarked Service Industries Zones and Small Scale Industries in the earmarked Industries Zones was permitted.

13.40. By the revision of policy made on 28-2-1979, (i) Additional construction would be permitted on the same plot for expansion of SSIs upto a limit of Rs.10 lakh; (ii) New SSIs would be permitted in galas which would become available as a result of valid NOCs granted for their construction or as a result of N.O. permission for industrial use granted by the Collector, Thane, in the past; (iii) Construction for SSIs would be permitted on open plots in MIDC areas, approved Govt/Co-op./Municipal Industrial Estates and in the Leather Complex to be developed by LIDCOM. Finally, by the revision made on 15-12-1981, (i) Existing SSI/Ancillary units would be allowed to expand upto a limit of Rs.20 lakh but without additional construction; (ii) New

SSI/Ancillary units would be permitted in approved galas subject to a ceiling of investment in plant and machinery upto Rs.20 lakh.

13.41. The haphazard growth of industrial units and their inordinate concentration in Zones I and II of the Bombay Metropolitan Region causing serious problems of housing, transportation, etc. have been well recognised. Nevertheless, the successive revisions, modifications, and relaxations in the Industrial Location Policy for these two Zones show how difficult it has proved not only to prevent further growth, but even to regulate location and shift industrial units out of non-conforming areas in these Zones. It was to ease the pressures in Zones I and II, that Zones III and IV were created and reserved for further industrial growth, but not far from Bombay. Hence, even the initial policy announced on 26-12-1974, allowed new large/medium/small scale units in these Zones but only in industrial areas developed by the Maharashtra Industrial Development Corporation (MIDC). SSI units were permitted even outside MIDC areas in Zone IV in locations earmarked for industrial use.

13.42. The policy as revised on 27-1-1977 made the following provisions: (i) Where plots were allotted by the MIDC in Trans-Thane Creek area (Zone III) prior to 10-10-1975, NOCs would be granted for new industrial units as well as expansion of existing units; (ii) In MIDC area of Taloja (Zone III), irrespective of the date of allotment of plot, NOCs would be issued to new industrial units and for expansion of existing units subject to Development Control Regulations applicable to New Bombay; (iii) In non-MIDC areas of Zone III, NOCs would be issued to large/medium/small scale units in Co-operative Industrial Estates; (iv) In Kalyan Complex (Zone IV), expansion of all existing units, subject to their fulfilling housing requirements of additional labour, and new SSI units would be permitted; (v) In other areas of Zone IV, industrial units and expansion of existing units would be permitted.

13.43. By the revision of policy on 28-8-1977, (i) Expansion of existing units in and around Uran (Zone III) was allowed but no new units were allowed; and (ii) In Kalyan Complex (Zone IV) while, earlier, expansion of existing large and medium industries subject to their providing 100 per cent housing for additional labour was allowed, the condition was relaxed to their providing 50 per cent housing for the additional labour. The revision of policy on 28-2-1979 did not much affect the policy in Zones III and IV. Finally, the revision of policy on 15-12-1981, allowed SSI units in conforming areas of these Zones to expand upto the limit of Rs. 20 lakh and Ancillary units upto the limit of Rs. 25 lakh.

Industrial Dispersal:

13.44. Thus, the Government of Maharashtra has been operating a twin policy, on the one hand, to restrict industrial growth in the Bombay Metropolitan Region and, on the other, to promote

industrial development in areas outside the Bombay and Pune Metropolitan Regions. We may now examine its net results. We have two sets of data to judge by : One is the number of Registered Small Scale Industry units registered as on 31-3-1974 and on 31-3-1982. The other is factory employment in 1962, in 1974 and in 1983. We shall first examine the number of SSI units in 1974 and 1982. The relevant data are given in Table 13.11.

13.45. There were in all 33,968 SSI units registered as on 31-3-1974 in the State of which only 70.82 per cent were located outside Greater Bombay. During 1974-82, 46,691 additional units were registered of which 86.08 per cent were located outside Greater Bombay. We may summarise the regionwise position as under:

<u>Region</u>	<u>SSI units registered as per cent of State total</u>		<u>SSI units registered during 1974-82 per lakh 1981 population</u>
	<u>As on 31-3-74</u>	<u>During 1974-82</u>	
Greater Bombay	29.18	13.92	
Konkan (excl. Gr. Bombay)	16.49	9.86	66.27
Western Maharashtra	36.23	38.43	76.40
Marathwada	5.99	13.74	65.93
Vidarbha	12.11	24.00	78.12
Maharashtra (excl. Gr. Bombay)	70.82	86.08	73.83

Thus, clearly, since 1974, there is a considerable shift away from Greater Bombay. Moreover, between the four regions, the SSI units registered during 1974-82, appear to be more or less evenly distributed per lakh of their population, somewhat more in Western Maharashtra and Vidarbha than in Konkan and Marathwada.

13.46. The data on factory employment is given in Table 13.12 and Table 13.12A. In Table 13.12, we give factory employment in 1962, 1974, and 1981, per cent growth during 1962-74 and 1962-81 and employment in 1981 per lakh of population. In Table 13.12A, employment in 1962 and 1981, as also additions to employment during 1962-74 and 1974-81 are expressed as percentage of State total. We shall first examine Table 13.12A.

13.47. A certain shift away from Greater Bombay is discernible. In 1962, 66.93 per cent of all factory employment in the State was located in Greater Bombay; in 1974, this was reduced to 56.64 per cent; in 1981, this was further reduced to 50.65 per cent. The shift is seen more clearly if we consider the distribution of the additional employment during 1962-74 and 1974-81. We may summarise it in the following:

Table 13.11

Number of Registered SSI Units

District	1974		During 1974-82		1982	
	SSI Units	Per lakh of 1981 Population	SSI Units	Per lakh of 1981 Population	SSI Units	Per lakh of 1981 Population
1	2	3	4	5	6	7
1. Greater Bombay	9,912	120.24	6,499	78.84	16,411	199.08
2. Thane	4,530	135.16	2,238	66.77	6,768	201.93
3. Raigad	496	33.37	1,162	78.17	1,658	111.54
4. Ratnagiri	575	27.23	1,205	57.07	1,780	84.30
<u>KONKAN</u>	<u>5,601</u>	<u>80.60</u>	<u>4,605</u>	<u>66.26</u>	<u>10,206</u>	<u>146.86</u>
(excl. G.B.)						
5. Nashik	3,339	111.61	1,705	56.99	5,044	168.60
6. Dhule	365	17.80	768	37.46	1,133	55.26
7. Jalgaon	428	16.35	1,313	50.15	1,741	66.50
8. Ahmednagar	804	29.69	1,169	43.16	1,973	72.85
9. Pune	3,314	79.58	4,974	119.44	8,288	199.02
10. Satara	519	25.46	1,105	54.20	1,624	79.66
11. Sangli	1,152	62.91	1,200	65.33	2,352	128.44
12. Solapur	1,145	43.87	3,085	118.19	4,230	162.06
13. Kolhapur	1,241	49.51	2,649	105.69	3,890	155.20
<u>WESTERN MAHARASHTRA</u>	<u>12,307</u>	<u>52.33</u>	<u>17,968</u>	<u>76.40</u>	<u>30,275</u>	<u>128.73</u>
14. Aurangabad	643	26.42	2,137	87.82	2,780	114.24
15. Parbhani	217	11.86	649	35.48	866	47.34
16. Beed	311	20.93	1,400	94.21	1,711	115.14
17. Nanded	444	25.38	1,053	60.19	1,497	85.57
18. Osmanabad	420	18.83	1,175	52.68	1,595	71.51
<u>MARATHWADA</u>	<u>2,035</u>	<u>20.92</u>	<u>6,414</u>	<u>65.93</u>	<u>8,449</u>	<u>86.85</u>
19. Buldhana	370	24.53	765	50.70	1,135	75.23
20. Akola	462	25.29	1,135	62.12	1,597	87.41
21. Amravati	388	20.84	1,021	54.85	1,409	75.69
22. Yavatmal	276	15.89	702	40.40	978	56.29
23. Wardha	332	35.83	601	64.86	933	100.69
24. Nagpur	1,663	64.24	5,345	206.46	7,008	270.70
25. Bhandara	249	13.55	558	30.37	807	43.92
26. Chandrapur	373	18.15	1,078	52.44	1,451	70.59
<u>VIDARBHA</u>	<u>4,113</u>	<u>28.68</u>	<u>11,205</u>	<u>78.12</u>	<u>15,318</u>	<u>106.80</u>
<u>MAHARASHTRA STATE</u>	<u>33,968</u>	<u>54.10</u>	<u>46,691</u>	<u>74.37</u>	<u>80,659</u>	<u>128.47</u>
<u>MAHARASHTRA STATE</u>	<u>24,056</u>	<u>44.11</u>	<u>40,192</u>	<u>73.69</u>	<u>64,248</u>	<u>117.80</u>
(excl. G.B.)						

Table 13.12

Factory Employment in 1962, 1974, 1981

District	Number of Workers		Percentage Increase		Employment in 1981 per lakh of Population	
	1962	1974	Col (3) over 1981 Col (2)	Col (4) over Col (2)		
1	2	3	4	5	6	7
1. Greater Bombay	520,666	588,409	603,785	13.01	15.96	7,324
2. Thane	38,820	122,368	129,047	215.22	232.42	3,850
3. Raigad	3,393	10,194	14,201	200.44	318.54	955
4. Ratnagiri	1,787	4,147	6,299	132.06	252.49	298
KONKAN	44,000	136,709	149,547	210.70	239.88	2,152
(excl. G.B.)						
5. Nashik	13,392	28,864	38,974	115.53	191.02	1,303
6. Dhule	9,244	8,410	8,200	(-)9.02	(-)11.29	400
7. Jalgaon	14,365	14,937	24,094	3.98	67.73	920
8. Ahmednagar	9,532	10,311	19,788	8.17	107.60	731
9. Pune	38,499	92,993	129,124	141.55	235.40	3,101
10. Satara	6,510	10,353	10,733	59.03	64.87	526
11. Sangli	5,567	11,676	11,926	109.74	114.23	651
12. Solapur	28,909	22,936	29,580	(-)20.66	2.32	1,133
13. Kolhapur	10,149	20,344	29,435	100.45	190.03	1,174
WESTERN MAHARASHTRA	136,167	220,824	301,854	62.17	121.68	1,283
14. Aurangabad	5,060	9,441	24,934	86.58	392.77	1,025
15. Parbhani	2,412	2,496	3,524	3.48	46.10	193
16. Beed	629	924	3,138	46.90	398.89	211
17. Nanded	5,589	7,047	7,484	26.09	33.91	428
18. Osmanabad	1,111	1,604	2,488	44.37	123.94	112
MARATHWADA	14,801	21,512	41,568	45.34	180.85	427
19. Buldhana	5,253	5,395	6,438	2.70	22.56	427
20. Akola	8,072	8,084	10,991	0.15	36.16	602
21. Amravati	6,253	8,028	9,604	28.39	53.59	516
22. Yavatmal	4,508	5,221	7,099	15.82	57.48	409
23. Wardha	7,112	6,696	7,792	(-)5.85	9.56	841
24. Nagpur	26,584	29,462	39,623	10.83	49.05	1,531
25. Bhandara	1,856	2,404	3,731	29.53	101.02	203
26. Chandrapur	2,587	6,124	10,097	136.72	290.30	491
VIDARBHA	62,225	71,414	95,375	14.77	53.27	665
MAHARASHTRA STATE	777,859	1,038,868	1,192,129	33.55	53.26	1,899
MAHARASHTRA STATE	257,193	450,459	588,344	75.14	128.76	1,079
(excl. G.B.)						

Table 13.12A

Factory Employment in 1962, 1974, 1981

District	Percentage to State Totals of			
	Workers in 1962	Increase between 1974 and 1962	Increase between 1981 and 1974	Workers in 1981
1	2	3	4	5
1. Greater Bombay	66.93	25.95	10.03	50.65
2. Thane	4.99	32.01	4.36	10.83
3. Raigad	0.44	2.61	2.61	1.19
4. Ratnagiri	0.23	0.91	1.40	0.53
<u>KONKAN</u>	<u>5.66</u>	<u>35.52</u>	<u>8.38</u>	<u>12.54</u>
(excl. G.B.)				
5. Nashik	1.72	5.93	6.60	3.27
6. Dhule	1.19	(-)0.32	(-)0.14	0.69
7. Jalgaon	1.85	0.22	5.97	2.02
8. Ahmednagar	1.23	0.30	6.18	1.66
9. Pune	4.95	20.88	23.57	10.83
10. Satara	0.84	1.47	0.25	0.90
11. Sangli	0.72	2.34	0.16	1.00
12. Solapur	3.72	(-)2.29	4.34	2.48
13. Kolhapur	1.30	3.91	5.93	2.47
<u>WESTERN MAHARASHTRA</u>	<u>17.51</u>	<u>32.43</u>	<u>52.87</u>	<u>25.32</u>
14. Aurangabad	0.65	1.68	10.11	2.09
15. Parbhani	0.31	0.03	0.67	0.30
16. Beed	0.08	0.11	1.45	0.26
17. Nanded	0.72	0.56	0.28	0.63
18. Osmanabad	0.14	0.19	0.58	0.21
<u>MARATHWADA</u>	<u>1.90</u>	<u>2.57</u>	<u>13.09</u>	<u>3.49</u>
19. Buldhana	0.67	0.05	0.68	0.54
20. Akola	1.04	0.00	1.90	0.92
21. Amravati	0.80	0.68	1.03	0.81
22. Yavatmal	0.58	0.27	1.23	0.60
23. Wardha	0.91	(-)0.16	0.71	0.65
24. Nagpur	3.42	1.10	6.63	3.32
25. Bhandara	0.24	0.21	0.88	0.31
26. Chandrapur	0.33	1.36	2.59	0.85
<u>VIDARBHA</u>	<u>8.00</u>	<u>3.52</u>	<u>15.63</u>	<u>8.00</u>
<u>MAHARASHTRA STATE</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>
<u>MAHARASHTRA STATE</u>	<u>33.06</u>	<u>74.05</u>	<u>89.97</u>	<u>49.35</u>
(excl. G.B.)				

Distribution of Factory Employment
(percentage of State Total)

<u>Region</u>	<u>1962</u>	<u>Increase in</u> <u>1962-74</u>	<u>Increase in</u> <u>1974-81</u>	<u>1981</u>
Greater Bombay	66.93	25.95	10.03	50.65
Thane	4.99	32.01	4.36	10.83
Rest of Konkan	0.67	3.51	4.01	1.72
Pune	4.95	20.88	23.57	10.83
Rest of Western Maharashtra	12.56	11.55	29.30	14.49
Marathwada	1.90	2.57	13.09	3.49
Vidarbha	8.00	3.52	15.63	8.00

Thus, the share of Greater Bombay in the additional factory employment declined rapidly. In 1962, Greater Bombay held 66.93 per cent of the factory employment; its share in the additional employment generated during 1962-74 was only 25.95 per cent; it further declined to 10.03 per cent of the additional employment generated during 1974-81. During 1962-74, while the share of Greater Bombay declined, the shares of Thane and Pune districts increased steeply; they accounted for 32.01 per cent and 20.88 per cent respectively of the additional employment generated during this period. During 1974-81, the share of not only Greater Bombay but also of Thane fell sharply. The share of Pune district increased somewhat and the share of the rest of Western Maharashtra increased steeply. The Western Maharashtra including Pune district accounted for 52.87 per cent of the additional employment generated during 1974-81. The shares of both Marathwada and Vidarbha picked up during this period. Taking the entire period 1962-81, Greater Bombay dropped its share in factory employment by 16.28 percentage points. Of this, 11.72 points were picked up by Thane and Pune more or less equally. The balance was divided as follows: 2.97 points in rest of Konkan and Western Maharashtra, 1.59 in Marathwada and nil in Vidarbha. Evidently, the policy to restrict further industrial development in Greater Bombay has been effective to some extent; but the policy of incentives has not been much effective to disperse the industry much beyond Thane and Pune.

13.48. The same results may be seen from Table 13.12. In the State as a whole, factory employment increased from 777,859 in 1962 to 1192,129 in 1981 which is an increase of 53.26 per cent. The factory employment in 1981 was 1,899 per lakh of population or about 2 per cent of the population. If we exclude Greater Bombay, the factory employment increased from 257,193 in 1962 to 588,344 in 1981 which is an increase of 128.76 per cent. The employment in 1981 works out to be 1,079 per lakh of population or about one per cent of population. In the following, we list all the districts in descending order by the factory employment in 1981 per lakh of population. In brackets is shown per cent increase during 1962-81:

Thane	3,850 (232.42)	Akola	602 (36.16)
Pune	3,101 (235.40)	Satara	526 (64.87)
Nagpur	1,531 (49.05)	Amravati	516 (53.59)
Nashik	1,303 (191.02)	Chandrapur	491 (290.30)
Kolhapur	1,174 (190.03)	Nanded	428 (33.91)
Solapur	1,133 (2.32)	Buldhana	427 (22.56)
Aurangabad	1,025 (392.77)	Yavatmal	409 (57.48)
Raigad	955 (318.54)	Dhule	400 (-11.29)
Jalgaon	920 (67.73)	Ratnagiri	298 (252.49)
Wardha	841 (9.56)	Beed	211 (398.89)
Ahmednagar	731 (107.60)	Bhandara	203 (101.02)
Sangli	651 (114.23)	Parbhani	193 (46.10)
		Osmanabad	112 (123.94)

Thus, Thane, Pune, Nashik, Kolhapur and Aurangabad districts have factory employment in 1981 more than 1,000 per lakh of population and an increase of more than 125 per cent during 1962-81. Nagpur and Solapur have factory employment more than 1,000 per lakh of population but very low rates of growth, particularly so in Solapur. On the other hand, Raigad has factory employment somewhat less than 1,000 per lakh of population but a very high rate of growth during 1962-81. Hence, we would say that Thane, Raigad, Pune, Nashik, Kolhapur and Aurangabad are the districts where the industrial growth during the past two decades and its present level is above the State Average excluding Greater Bombay. The locational advantage that these districts have in relation to Bombay is obvious.

13.49. To sum up, the policy to restrict further industrial development in Bombay Metropolitan Region has been effective to some extent; but the policy of incentives has not been much effective to disperse industry much beyond the reach of Bombay-Pune. There is need to reconsider both aspects of the policy.

Industrial Location Policy:

13.50. Regarding the Industrial Location Policy for the Bombay Metropolitan Region, it is necessary to pursue it with greater rigour and coherence. We suggest the following:

13.51. In Zones III and IV, industries are presently allowed in areas earmarked for industries whether developed by MIDC or otherwise. We suggest that no new industrial areas may be allowed to be planned and developed in these Zones.

13.52. In Zones I and II, which broadly cover the area of Greater Bombay and Thane, the policy has been somewhat hesitant and inconsistent over the years. We suggest that no new industries, except service industries, be henceforth allowed in these Zones. This means that new Small Scale Industries should not be allowed even in vacant galaś. In large and medium industries, expansion is not presently allowed but operations like modernisation, replacement, etc., are allowed even with some increase in power. While the need for modernisation cannot be defined, such operations are often accompanied by expansion. Hence, it will be advisable not to allow such operations for some

time to come until the situation is stabilised.

13.53. We are aware that the endorsement of additional capacity is allowed by Government of India on existing licensed capacity for industries in Bombay City; but the rationale of our policy will have to be explained to the Government of India authorities. If exception is to be made on merits and replacement of machinery, etc., is to be allowed, we suggest that it may be done only on condition that the applicant company puts up another project in a backward district of Maharashtra. Some of the pharmaceutical companies in Bombay may want to introduce sophistication into their bulk manufacturing activities in the city on the ground that it will be prohibitively costly to have these activities located outside Bombay; but, in such cases, it should be possible for the companies to shift their unsophisticated activities including formulations, etc., outside Bombay.

13.54. The Industrial Location Policy is presently operated through the issue of administrative orders. It seems that the authority for this is derived from the provisions in the Bombay Development Control Rules under which building permission for industrial establishment cannot be given in Bombay City without the applicant obtaining a No Objection Certificate from the Industries Department. But the scope of Industrial Location Policy extends beyond Greater Bombay and covers the entire Bombay Metropolitan Region and the procedure for grant of NOC for setting up a new industry, etc., in the remaining area of the BMR does not have any statutory authority. In any case, Industrial Location Policy is an important instrument of policy and it will be desirable to have a specific legislation to cover its administration.

Policy of Incentives:

13.55. The failure, or rather the ineffectiveness of the policy of incentives to achieve wider dispersal of industry, particularly away from existing industrial centres, is not confined to Maharashtra. It appears to be more general. The National Committee on Development of Backward Areas (NCDBA), in its Report on Industrial Dispersal observes: "A doubt has been cast whether the Central capital subsidy scheme and the concessional finance scheme have had the desired result in decentralising location of industries and pushing them into the backward areas. whereas some dispersal has been achieved, there is sufficiently clear indication that entrepreneurs have moved towards locations in established industrial estates and to locations close to the existing agglomerations of industries." (para 7.2). In explanation, the NCDBA notes: "The Seminar on Industrial Development organized by the Industrial Development Bank of India in May, 1980 has brought out clearly what the entrepreneur wants. The main supports the entrepreneurs want for location of their industries are: (i) an existing infrastructure which gives ready electricity, water supply, commercial facilities, and communication facilities with the main industrial centres; (ii) an existing industrial ethos which has brought into

the population the necessary discipline in attendance and work schedules to suit modern industrial requirements; (iii) approach to the main marketing centres within reasonable distance so as to help in the disposal of the products; (iv) a reasonable raw material supply close by where industry depends on local raw materials; (v) a reasonable foot-loose industrial labour which can help in solving problems of industrial absenteeism; (vi) social amenities of a reasonable kind, like educational institutions, medical facilities and the like so as to attract the type of technical and managerial personnel to such centres on a reasonable basis; (vii) housing for the labour and supervisory personnel at reasonable rates or rent; and (viii) services for the high income personnel who are a necessary part of all industrial complexes. The entrepreneurs will move towards locations where they can find at least a minimum amount of such facilities." (Para 7.4).

13.56. The NCDBA concludes : "The industrial dispersal policy for medium and large industries has to be such that the policy leads to location of industries at points away from the present agglomerations, so that the dispersal process can start outwards from the existing agglomerations. (Para 7.6). Policy measures, which did not distinguish between under-developed areas which are near existing industrial centres and those which are not as near, have, by and large, only benefited the first category of areas which in any case were better placed to benefit from the growth impulse emanating from the existing centres. Hence, a genuine policy of industrial dispersal must give priority to centres at a sufficient distance from existing centres." (Para 7.8).

13.57. It seems to us that one major reason why the Package Scheme of Incentives of the Government of Maharashtra has not been so effective to disperse the industry much beyond the reach of Bombay-Pune is that it does not distinguish between industrially under-developed areas which are near Bombay-Pune and which are not so near. We think that the Package Scheme of Incentives must take into account the factor of distance and compensate sufficiently the areas lying further away for the disadvantages they suffer from.

13.58. As already mentioned, for purposes of the 1979 Package Scheme of Incentives as also the 1983 Package Scheme of Incentives, the developing areas in the State are classified in three groups B, C, and D, depending upon the industrial backwardness of the area and incentives are offered in a graded scale - minimum amount of incentives being available in Group B and maximum in Group D. The developed areas comprising Bombay Metropolitan Region and Pune Metropolitan Region are put in Group A, where no incentives are available. For classifying the other areas in Groups B, C, and D, taluka is taken as the unit of classification and the classification is done on the basis of industrial backwardness, though no particular indicator seems to have been adopted for the purpose. Moreover, the distance from the developed areas of Bombay-Pune is not taken into account while placing a taluka in a certain Group. We approve taluka as

the unit of classification but suggest that they should be reclassified in the four Groups A, B, C, and D on a combined consideration of (i) industrial backwardness and (ii) distance from the developed region of Bombay-Pune.

13.59. We could have chosen factory employment per lakh of population as an indicator of industrial backwardness. But, the data on factory employment is not readily available on a taluka basis. Moreover, data on factory employment is confined to factories coming under the Factories Act of 1948, which covers manufacturing establishments (i) employing 10 or more workers and using power; and (ii) those employing 20 or more workers and not using power. It excludes employment in manufacturing establishments smaller than those mentioned above. Hence, it seems that factory employment per lakh of population would be too narrow a base for judging industrial development of a taluka. It would be more appropriate to take into account employment in all manufacturing establishments other than the household industry. The relevant data from the 1981 Population Census is not yet available and the data from the 1971 Census would be too old for the purpose. Fortunately, relevant data is available from the Second Economic Census conducted in 1980.

13.60. The Second Economic Census was conducted in 1980 simultaneously with the house-listing operations of the Population Census of 1981. The Economic Census covered all non-agricultural and agricultural enterprises excluding enterprises engaged in crop production and plantation. An enterprise was defined as an undertaking engaged in production and/or distribution of goods and/or services not for the sole purpose of own consumption. The enumeration of the enterprises and the workers engaged in them was done according to the place in which they were operating. The persons engaged in an enterprise could be members of the household owning it or they could be hired workers. Accordingly, depending upon whether they employed any hired workers or not, the enterprises were divided into two broad groups; (a) own account enterprises, i.e., those not employing any hired workers; and (b) establishments, i.e., those employing at least one hired worker on a regular basis. The establishments thus defined were classified according to the type of activity. Our interest is in establishments engaged in manufacturing and repair services. Hence, in the following, we propose to use the data from the Second Economic Census 1980, on the number of workers (both family workers and hired workers) employed in establishments, that is enterprises employing at least one hired worker on a regular basis, engaged in manufacturing and repair services (codes 2 and 3 of National Industrial Classification). We shall express the number of workers as percentage of the total population and use it as an indicator for classifying talukas according to industrial development or backwardness. We shall classify all the talukas in four classes I(1), I(2), I(3), and I(4) as follows:

<u>Industrial development class</u>	<u>Number of workers employed in establishments as percentage of total population</u>
I(1)	2.50 and above
I(2)	1.00 - 2.49
I(3)	0.50 - 0.99
I(4)	0.49 and below

13.61. For grouping the talukas for purposes of Incentives, we shall combine the above indicator of Industrial Development or Backwardness, with an indicator of distance from Bombay-Pune. With this in view, we make the following four distance Classes : D(1), D(2), D(3), and D(4) as follows:

<u>Distance class</u>	<u>Description</u>
D(1)	Within 100 kms. from Bombay or within 50 kms. from Pune.
D(2)	100 - 300 kms. from Bombay.
D(3)	300 - 500 kms. from Bombay.
D(4)	500 kms. and more from Bombay.

A taluka is classified into one of the four distance classes depending upon whether more than half of its area falls within the specified distance class.

13.62. Finally, we combine the two indicators, one for industrial development/backwardness and the other for distance from Bombay-Pune in the following manner and group the talukas into four groups A, B, C, and D for purposes of incentives.

Incentive Group of Talukas

<u>Indicator of industrial development</u>	<u>Distance class from Bombay-Thane-Pune</u>			
	D(1)	D(2)	D(3)	D(4)
I(1)	A	A	B	C
I(2)	A	B	C	D
I(3)	B	C	D	D
I(4)	C	D	D	D

The principle of combining the two indicators is as follows: The basic grouping is by indicator of industrial development provided the taluka falls in D(2) class that is provided more than half of its area is 100-300 kms. from Bombay. At this distance, the talukas with indicators of industrial development, I(1), I(2), I(3), and I(4) are assigned incentive Groups A, B, C, and D respectively. Talukas with the same industrial indicators but with distance class D(1) that is lying within 100 kms. from Bombay or 50 kms. from Pune are placed one group above if possible (A in A, B in A, C in B, and D in C) thereby reducing the incentives. On the other hand, the talukas with the same industrial development indicators but distance class D(3), that is lying within 300-500 kms. from Bombay, are placed in one group

lower if possible (A in B, B in C, C in D, and D in D) thereby increasing the incentives. Finally, talukas with the same industrial development indicators but in distance class D(4), that is lying beyond 500 kms. from Bombay, are placed in groups two places below, if possible, (A in C, B in D, C in D and D in D) thereby greatly increasing the incentives. We may explain the same a little differently. When we combine the two indicators each with 4 classes, we get 4X4 classes, appearing as the 16 cells of the above table, in which the talukas are placed. If we examine the left-right diagonals, it will be noticed that all talukas falling on the principal diagonal are placed in Group C; all talukas falling in the lower diagonals are placed in Group D; all talukas falling on the diagonal immediately above the principal diagonal are placed in Group B; and all talukas falling above this one are placed in Group A. It will thus be seen that, while grouping the talukas in Groups for purposes of incentives, we take into account both the indicators of industrial development and the distance from Bombay-Pune.

13.63. In Annexure B, we give the following details for all the talukas: 1981 population (Col.2); number of workers, both family and hired, employed in establishments engaged in manufacturing and repair services as per the Second Economic Census, 1980, (Col.3); the number of workers as percentage of 1981 population (Col.4); industrial development indicator (Col.5); distance from Bombay-Pune class (Col.6); Incentive Group as assigned by us (Col.7); and finally, (Col.8) the Group assigned in the 1983 Package Scheme of Incentives (SICOM).

13.64. There are two types of incentives in the 1983 Package Scheme of Incentives: (a) Part I (which includes Special Capital Incentive) and (b) Part II. The two parts are mutually exclusive and no unit is eligible to get both the incentives simultaneously. Option exercised once is final and binding on the unit.

13.65. Incentives under Part I: An eligible New Unit (including a Pioneer Unit which is a New Unit) is entitled to (i) Sales Tax incentive either by way of exemption or by way of deferral, subject to a ceiling defined as a percentage of fixed capital investment; and (ii) Special Capital Incentive. For Expansion/Diversification (including Expansion/Diversification qualifying as a Pioneer unit with Fixed Capital Investment exceeding Rs.25 crore), an eligible unit is entitled to (i) Sales Tax incentive only by way of deferral; but (ii) No Special Capital Incentive. Under Sales Tax Exemption/Deferral, an eligible unit is exempted/entitled to defer for a certain number of years the following taxes: (i) Sales Tax under the Bombay Sales Tax Act, 1959, on purchases of raw materials and sales of finished products of the eligible unit; and (ii) Central Sales Tax under the Central Tax Act, 1956, on the sale of finished products of the eligible unit effected in the course of inter-State trade or commerce. The amount of tax so deferred is payable after 12 years in six equal annual instalments.

13.66. We find this framework of Sales Tax incentives under

Part I of the Package Scheme satisfactory. Our only comment is that the scale of incentives is not sufficiently steeply graded to give the needed advantage to Group D talukas over the Group C talukas and to Group C talukas over the Group B talukas. We suggest a steeper gradation. In the following, we give the scale of Sales Tax incentives under Part I of the present scheme and the steeper scale as we would have it.

For Medium/Large Units

<u>Group</u>	<u>Period in years or earlier if ceiling is reached</u>	<u>Ceilings as per cent of fixed capital investment</u>	
		<u>Present</u>	<u>Proposed</u>
Group B & resource-based units	3	75	50
Group C	5	80	70
Group D	7	85	90
Pioneer Units	9	90	90
<u>For Small Scale Units</u>	As above for respective groups	100	100

13.67. The same is true of Special Capital Incentive. New Units eligible under Part I are entitled to Special Capital Incentive by way of a grant. It is also available to eligible units set up in areas where Central Subsidy Scheme is applicable. However, the quantum of Special Capital Incentive admissible in such cases is reduced by the amount of Central Subsidy or the residual amount of Central Subsidy admissible to the New Unit. We find this framework satisfactory. However, we think that the present Special Capital Incentive is not sufficiently steeply graded to give the needed advantage to Group D over Group C and to Group C over Group B. In the following we give the present provision and as we would have it.

<u>Group</u>	<u>Medium/Large Units</u>		<u>Small Scale Units</u>	
	<u>Per cent of fixed capital investment/ limited to Rs.** lakh</u>		<u>Per cent of fixed capital investment/ limited to Rs.** lakh</u>	
	<u>Present</u>	<u>Proposed</u>	<u>Present</u>	<u>Proposed</u>
Group B & resource based units	<u>15%</u> 15 lakh	<u>10%</u> 10 lakh	<u>20%</u> 7.5 lakh	<u>15%</u> 5 lakh
Group C	<u>20%</u> 20 lakh	<u>15%</u> 15 lakh	<u>25%</u> 7.5 lakh	<u>20%</u> 7.5 lakh
Group D	<u>20%</u> 20 lakh	<u>20%</u> 20 lakh	<u>25%</u> 7.5 lakh	<u>25%</u> 10 lakh
Pioneer Units	<u>25%</u> 25 lakh	<u>25%</u> 25 lakh		

13.68. Incentives under Part II: The incentives under Part II are again Sales Tax incentives, subject to double ceiling defined as an area a percentage of fixed capital investment and a special absolute amount, and, as mentioned above, a unit cannot claim incentives under both Part I and Part II. Hence, the incentives under Part II are available only if an eligible unit has not opted for incentives under Part I. The Sales Tax incentive under Part II is only by way of deferral of sales tax liability either of an existing unit or new unit/expansion so set up by the existing unit after it goes into production as the case may be. The amount of sales tax so deferred is payable after 12 years in six equal annual instalments. An existing unit is considered eligible for setting up a new unit/expansion, provided, for the three years immediately prior to the year in which the application for Eligibility Certificate is filed, the unit has paid in respect of the products in Maharashtra, sales tax in excess of Rs.15 lakh (if the existing unit is located in Group A area) or Rs.5 lakh (if the existing unit is located in Group B, C, or D areas). Here again, we find the framework of incentives satisfactory but the scale not sufficiently steeply graded to give the needed advantage to the Group D over the Group C, and to the Group C over the Group B. In the following, we show the scale at which an eligible unit is entitled to Sales Tax incentive under Part II and the scale we recommend.

<u>Group</u>	<u>Quantum as per cent of fixed capital investment in the new unit/expansion</u>		<u>Limited to ** years' sales tax paid by the existing unit</u>	<u>Subject to ceiling Rs. lakh</u>
	<u>Present</u>	<u>Proposed</u>		
Group B & Exported-Oriented/resource-based units	25	20	3	50
Group C	30	30	4	75
Group D	35	40	5	100
Pioneer Units	40	50	6	150

It will be noticed that we propose only some changes in the quantum of incentive as per cent of the fixed capital investment in new unit/expansion.

13.69. To sum up, for a more effective dispersal of industry in Maharashtra away from Bombay-Pune, all talukas will have to be grouped taking into account both the level of their industrial development and their distance from Bombay-Pune and the incentives will have to be more steeply graded so that the differential disadvantages of the several groups of talukas are appropriately compensated. We suggest that the Package Scheme of Incentives should be modified accordingly.

13.70. It has been represented to us that there is inordinate delay in the payment of incentives. In fact, there is an

admission to this effect in the Annual Plan 1984-85 of the State Government. It says: "For package scheme of incentives a step up of Rs.5 crore over current year's outlay of Rs.12.00 crore has been proposed to reduce partly the huge liability of over Rs.50.00 crore." (para 16.22). In other words, while over Rs.50 crore worth of incentives are due to be paid, a provision of only Rs.17 crore is made in the Annual Plan 1984-85. This is very unsatisfactory and most undesirable. Needless to say, incentives will not work without their being paid promptly. Delay in this matter will postpone dispersal of industries and accentuate regional disparities in industrial development.

13.71. The present policy aims at restricting further industrial development in the Bombay Metropolitan Region and promoting location of new industries in other areas of the State. It seems to us that, side by side, the possibility of shifting some of the industries now located in the Bombay Metropolitan Region to other areas needs to be explored actively. An appropriate scheme of incentives will have to be devised for the purpose. It has been suggested that income-tax concession, on lines of the investment allowance, on the assets actually so shifted may help. The matter lies within the purview of the Government of India. We suggest that the State Government may pursue it actively with the Government of India.

13.72. Besides offering appropriate incentives to private industry so that it may move into under-developed areas further away from Bombay-Pune, Government has tried, as a matter of policy, to locate Public Sector industries in backward areas wherever feasible. This is true of the Government of India and the State Government, both. Superficially, one notices a number of Government of India undertakings located in Bombay. But a number of them are private industries taken over by the Government. Others are mainly connected with petroleum or petrochemical products and their location in Bombay is natural. Location of Hindustan Antibiotics at Pune and of Hindustan Aeronautics at Nashik when they were located, and more recent location, of Hindustan Organic at Rasayani and Khopoli, of HMT (Dairy Machinery) at Aurangabad, and Manganese Ore and Mining and Allied Machinery Corporation at Nagpur are good examples of the Government's policy in this respect.

13.73. The State Government naturally bears greater responsibility of locating its industries in backward areas. In Annexure C, we give a list of Public Sector industries of the State Government. It will be seen that they are generally well distributed over the four regions and in fact between several districts. Nevertheless, the case of Meltron shows that greater vigilance is needed. Location of Meltron Audio Visual Division at Andheri, within the Bombay Metropolitan Region, is not only contrary to the policy of industrial dispersal but violates the Industrial Location Policy of the Government.

13.74. Though the Government undoubtedly has special responsibility to promote industrial development in the under-

developed regions, one should appreciate that it is not entirely free and without constraints to locate new industrial units anywhere it may want them to be. Raw material based industries have to be located near the sources of the raw materials and often these are to be found in under-developed areas. If the units are large enough to create new and independent townships, they can be located, in a sense, anywhere because all the necessary infrastructure and facilities can be provided in the new townships though the costs have often proved prohibitive. With smaller units which cannot independently support the necessary infrastructure, locating them in backward areas is not easy. The other industries in the Public Sector, that is those not raw materials based, and usually not very large in size, are constrained by the same considerations and requirements in their choice of location, as are the private sector industries. The NCDBA observes: "The experience the country had to go through in establishing large industries in the backward areas of the country, like the steel plant locations and the cement plant locations, which perforce had to be near the raw material, shows how costly it is to develop the necessary infrastructure in a new location to support even raw material based industries. How much more expensive will it be to support general industrial development if we endeavour to locate new such complexes in the backward areas? Our policy, therefore, has to be such that development can be established within the constraints of finance that the country has to face in trying to force rapid development in most economic sectors." (Report on Industrial Dispersal, Para. 7.7).

13.75. The concept of the Joint Sector has been evolved in the last few years in which a project is normally promoted by a State Level institution, such as the SICOM or MELTRON, or a Regional Development Corporation, in partnership with a private sector party. A new company is formed to implement the project with State Corporation (Promoter) holding 26% and the private sector partner (Co-promoter) holding 25% of the equity capital, the balance of 49% to be issued to the public in due course. Equal number of directors are appointed from the two sides. The Chairman is chosen from amongst the directors appointed by the promoter Corporation while the Managing Director is chosen from the directors nominated by the Co-promoter. Day-to-day management is left to the private sector party. The Joint Sector Agreement normally stipulates that the equity held by the promoter institution will be purchased by the Co-promoter between the 5th and the 8th year, so that the funds of the promoter corporation are freed for recycling. Joint Sector projects often receive preferential treatment in matters of licensing by the Government of India and the State Government can exercise considerable influence on location of the project, of course, subject to viability.

13.76. Another concept evolved is that of the Assisted Sector in which the State Corporation holds only a minority interest say of 10 or 15 per cent. The main promoter is the private sector party while the State Corporation helps by filling the gap in equity. The Government of India is increasingly preferring the

concept of Assisted Sector and, in many large projects, the State Corporations are allowed to hold only 11% equity. In projects under Assisted Sector too, the State can influence the decision regarding location though to a limited extent.

13.77. Thus various forms and arrangements are being evolved to enable the Government, both at the Centre and in the State, to give a direction to industrial development an essential aspect of which is its location. If the achievement so far is below the expectations of many, particularly of those in the under-developed regions, the reasons probably are inherent in the process of industrial development.

Annexure A-1

Comparative Statement of Incentives under Package Scheme of
Incentives 1964 and 1969

	1964 Scheme	1969 Scheme
1. <u>Scheme came into effect from</u>	25-9-1964	1-4-1969
2. Applicability	Applicable to 55 industries only. Units set up on or after 25-9-1964 in areas outside the Bombay Poona belt will be eligible.	Applicable to all industries set up on and after 1-4-1968 in the developing areas as specified in the Scheme.
3. <u>Nature and Scales of Incentives</u>		
A) <u>Sales Tax Loan: Part I</u>		
Amount admissible each year	Sales Tax paid during the year limited to eight per cent of the Fixed Assets.	
Period for which incentive is available	For 13 years from the date of Registration/Licence.	For 6 years from the date of commencement of production.
B) <u>Sales Tax Loan: Part II</u> (Units eligible under Part I will not be eligible under Part II and vice versa.)	Not applicable.	25% of Fixed Assets, or 3 years Sales Tax liability, whichever is lower
C) Octroi Duty	Refund of Octroi Duty paid on capital equipment, building materials and raw materials imported by eligible units within the limits of local authorities limited to 1.6 per cent of the value of only the capital equipment and building materials so imported.	
Period for which incentive is available	For 13 years from date of Registration/Licence.	For 6 years from the date of commencement of production, OR The date of import of first capital equipment whichever is earlier.

	1964 Scheme	1969 Scheme
D) Water Royalties	Eligible units which lift water from public water source and are required to pay water royalties to the Revenue and Forest Department under the Maharashtra Land Revenue Code, 1966 will be exempted from payment of such royalties.	
Period for which incentive is available	For 13 years from date of Registration/Licence.	For 6 years from the date of commencement of production.
E) Non Agricultural Assessment	The eligible units will be exempted from payment of non-agricultural assessment on the land acquired for the purpose of the industrial use.	
Period for which incentive is available	For 13 years from the date of Registration/Licence.	For 6 years from the date of commencement of production.
F) Rebate in Electricity Tariff	All eligible units having maximum demand of 200 KW or more in any month will receive for all such months a rebate on electricity tariff so as to bring the tariff on par with Tata's tariff in Bombay. The eligible units will thus have to pay to Maharashtra State Electricity Board (or any other agency supplying power) only the Tata tariff.	
Period for which Incentive is available	5 years from the date of commencement of production.	5 years from the date of commencement of production.

Annexure A-2

Comparative Statement of Incentives under Package Scheme of Incentives, 1973 and 1976

	1973 Scheme	1976 Scheme
1. <u>Scheme came into effect from</u>	15-8-1973	1-8-1976
2. <u>Applicability</u>	Applicable to all industries set up in areas under Group II, III & IV on and after 2-12-1972.	Applicable to industries set-up in the areas covered under Group 'B' and 'C'.
3. <u>Nature and Scales of Incentives</u>		
A) <u>Sales Tax Loan Part I</u> Amount admissible each year:	Sales Tax paid during the year limited to eight per cent of the Fixed Assets.	Four per cent of the Fixed Assets plus Rs.1,200/- per job per year. Overall limited to eight per cent of Fixed Assets or Sales Tax paid, whichever is less.
Period for which incentive is available	<u>Group II</u> 6 years <u>Group III</u> 8 years <u>Group IV</u> 10 years	<u>Units set up in areas covered under</u> <u>Group 'B'</u> <u>Group 'C'</u>
		Small Scale units Six years Eight years
		Medium & Large Scale units Five years Six years
		Maximum limit of Incentive admissible Rs.50 lakh for eligible unit.
B) <u>Sales Tax Loan: Part II</u> (Units eligible under Part I will not be eligible under	<u>Group II</u> 25% of F.As. or 3 years sales tax liability which-	<u>Group III</u> 30% of F.As. or 4 years sales tax liability which-
	<u>Group IV</u> 35% of F.As. or 5 years sales tax liability which-	<u>New units located in the areas covered under:</u> <u>Group 'B'</u> 20 per cent of the fixed assets or sales tax liability <u>Group 'C'</u> 25 per cent of the fixed assets or sales tax liability

1973 Scheme			1976 Scheme		
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Part II and vice versa.) ever is lower ever is lower ever is lower for a period of three years, which ever is lower. (Maximum limit Rs. 40 lakh) for a period of four years which ever is lower. (Maximum limit Rs. 50 lakh)

C) Octroi Duty Refund of Octroi Duty paid on capital equipment, building materials and raw materials imported by eligible units within the limits of local authorities limited to 1.6 per cent of the value of only the capital equipment and building materials so imported.

Period for which incentive is available	Group II	Group III	Group IV	Units	Units set up in areas covered under	
	6 years	8 years	10 years		Group 'B'	Group 'C'
				Small Scale units	For Six years	For Eight years
				Medium & Large Scale units	For Five years	For Six years

D) Water royalties Eligible units which lift water from public water source and are required to pay water royalties to the Revenue and Forest Department under the Maharashtra Land Revenue Code, 1966 will be exempted from payment of such royalties.

Period for which incentive is available	Group II	Group III	Group IV	Units	Units set up in areas covered under	
	6 years	8 years	10 years		Group 'B'	Group 'C'
				SSI units	For six years	For eight years
				M. & L.S. units	For five years	For six years

E) Non-agricultural assessment The eligible units will be exempted from payment of non-agricultural assessment on the land acquired for the purpose of industrial use.

1973 Scheme	1976 Scheme
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Period for which incentive is available	<u>Group II</u>	<u>Group III</u>	<u>Group IV</u>	<u>Units</u>	<u>Units set up in areas covered under</u>	
	6 years	8 years	10 years		<u>Group 'B'</u>	<u>Group 'C'</u>
				SSI units	For six years	For eight years
				M. & L.S. units	For five years	For six years

F) Rebate in Electricity Tariff

All eligible units having maximum demand of 200 KW or more in any month will receive for all such months a rebate on electricity tariff so as to bring the tariff on par with Tata's tariff in Bombay. The eligible units will thus have to pay to Maharashtra State Electricity Board (or any other agency supplying power) only the Tata tariff.

Period for which incentive is available	<u>Group II</u>	<u>Group III</u>	<u>Group IV</u>	<u>Units</u>	<u>Units set up in areas covered under</u>	
	5 years	7 years	9 years		<u>Group 'B'</u>	<u>Group 'C'</u>
				M. & L.S. Units	For Four years	For Five years

Annexure A-3

Comparative Statement of Incentives under Package Scheme of
Incentives 1979 and 1983

	1979 Scheme	1983 Scheme
1. Scheme came into effect from	1-9-1979	1-4-1983
2. Classification of areas	The State is divided into four Groups, namely, Group 'A', Group 'B', Group 'C' and Group 'D'. No incentives are available to Group 'A' areas. The scales of incentives are minimum for Group 'B' areas and maximum for Group 'D' areas.	Provisions of 1979 Scheme continued.
3. Coverage	Units in private sector, State Public Sector/ Joint Sector and the Co-operative Sector. Industries covered under Government of India's Central Investment Subsidy Scheme will be covered. Central Public Sector undertakings will not be eligible under the Scheme.	Same norms as under the 1979 Scheme are applicable.
4. Eligibility	Incentives admissible to- a) New Units b) Near New Units c) Expansion/Diversification.	Incentives admissible to- a) New Units b) Only expansion/diversifications, involving Fixed Capital Investment in excess of Rs.15 crore (and five times the fixed capital investment of the existing unit).
5. Pioneer Status	Only one unit being the first unit set up in a Taluka/Panchayat Samiti Area considered eligible provided that it has Fixed Capital Investment	Only one unit being the first unit set up in a Taluka/Panchayat Samiti Area considered eligible provided that it has Fixed Capital Investment

exceeding Rs.5 crore if set up in 'C' Area outside MIDC area, and Rs.2 crore in 'D' Area.

exceeding - Rs.5 crore if set up in 'C' Area, and Rs.2 crore in 'D' Area;

Not more than one unit conferred Pioneer Status under this category.

Additionally -

Any new investment in an identifiable project either as a New Unit or as Expansion/Diversification involving Fixed Capital Investment in excess of Rs.25 crore will also be conferred pioneer status even if such investment is made in a second or subsequent unit in point of time in a Taluka. Any number of units conferred Pioneer Status under this category.

6. Part-I Sales Tax Incentive

Is available by way of exemption or deferral of sales tax liability as shown below:

Is available by way of exemption or deferral of sales tax liability as shown below:

	For MSI LSI	For SSI	No. of years MSI/LSI	No. of years SSI		For MSI LSI	For SSI	No. of years MSI/LSI	No. of years SSI
Group 'B' and Resource based units	75% of FCI	100% of FCI	3 yrs	5 yrs		75% of FCI	100% of FCI	3 yrs	3 yrs
Group 'C'	80% of FCI	100% of FCI	5 yrs	7 yrs		80% of FCI	100% of FCI	5 yrs	5 yrs
Group 'D'	85% of FCI	100% of FCI	7 yrs	9 yrs		85% of FCI	100% of FCI	7 yrs	7 yrs
Pioneer Unit	90% of FCI	-	9 yrs	-		90% of FCI	-	9 yrs	-

7. Part-II Sales Tax Incentive

The incentive is admissible as an interest free loan repayable after 12 years in six equal annual instalments.

The incentive is admissible by way of deferral of sales tax liability of the existing unit. Sales Tax deferred is payable after 12 years in 6 equal annual instalments.

	<u>Scales</u>	<u>Ceilings</u>	<u>Scales</u>	<u>Ceilings</u>
Group 'B'	25% of FCI or 3 years Sales Tax liability, whichever is lower.	No ceilings	25% of FCI or 3 years Sales Tax liability, whichever is lower.	Rs.50 lakh
Group 'C'	30% of FCI or 4 years Sales Tax liability, whichever is lower.	No ceilings	30% of FCI or 4 years Sales Tax liability, whichever is lower.	Rs.75 lakh
Group 'D'	35% of FCI or 5 years Sales Tax liability, whichever is lower.	No ceilings	35% of FCI or 5 years Sales Tax liability, whichever is lower.	Rs.100 lakh
Pioneer Unit	40% of FCI or 6 years Sales Tax liability, whichever is lower.	No ceilings	40% of FCI or 6 years Sales Tax liability, whichever is lower.	Rs.150 lakh

8. Special Capital Incentive

Admissible as interest free loan repayable after 12 years in six equal annual instalments.

Admissible as an outright grant.

<u>Areas</u>	<u>Scales</u>	<u>Ceilings</u>	<u>Areas</u> <u>MSI/ISI</u> <u>Units</u>	<u>Scales</u>	<u>Ceilings</u>
Group 'B'	10% of fixed capital investment	Rs.10 lakh	Group 'B'	15% of fixed capital investment	Rs.15 lakh
Group 'C'	12.5% of fixed capital investment	Rs.12.5 lakh	Group 'C'	20% of fixed capital investment	Rs.20 lakh
Group 'D'	15% of fixed capital investment	Rs.15 lakh	Group 'D'	20% of fixed capital investment	Rs.20 lakh

8. (contd.)	Pioneer 20% of Rs.40 lakh Unit fixed capital invest- ment	Pioneer 25% of Rs.25 lakh Unit fixed capital invest- ment
		<u>SSI Units</u>
		Group 20% of Rs.7.5 "B" fixed lakh capital invest- ment
		Group 25% of Rs.7.5 "C" fixed lakh capital invest- ment
		Group 25% of Rs.7.5 "D" fixed lakh capital invest- ment
9. MIDC Incentive	Is available as "Interest free loan" at 5% of fixed capital investment limited to Rs.5 lakh in Group "C" and Group "D" areas.	Dropped.
10. Octroi Refund:		
Part - I	Is available to NEW units for 3/5/7/9 years depend- ing on location in B/C/D areas or a Pioneer Unit, respectively.	Is available to NEW units for 3/5/7/9 years depend- ing on location in B/C/D areas or a Pioneer Unit, respectively.
Part - II	During implementation of the project. Not available for expan- sion/diversification	During implementation of the project. Not available for expan- sion/diversification.
11. Contribution towards cost of Feasibility Study	75% of the contribution towards cost of preparat- ion of feasibility study is borne by Government. On the implementation of the project the quantum will be treated as an interest bearing loan repayable after 5 years	75% of the contribution towards cost of preparat- ion of feasibility study is borne by Government. On the implementation of the project the quantum will be treated as an interest bearing loan repayable after five years

12. Preferential treatment in purchase programme

33% of the indented quantities in Government purchase programme reserved for eligible units.

33% of the indented quantities in Government purchase programme reserved for eligible units.

13. Housing Subsidy

Admissible at Rs.5/- per sq.ft. of built-up area or 1% of Gross Fixed Capital Investment, whichever is less.

Dropped.

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Estab- lish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
2. THANE							
Thane	6,38,651	1,07,620	16.85	I(1)	D(1)	A	A
Vasai	2,78,631	11,862	4.26	I(1)	D(1)	A	A/C*
Palghar	2,64,065	6,838	2.59	I(1)	D(1)	A	C
Dahana	2,22,241	4,258	1.92	I(2)	D(1)	A	C
Talasari	67,056	108	0.16	I(4)	D(2)	D	D
Jawahar	1,09,479	212	0.19	I(4)	D(1)	C	D
Mokhada	64,236	63	0.10	I(4)	D(1)	C	D
Vada	95,652	446	0.47	I(4)	D(1)	C	C
Bhiwandi	3,96,455	74,618	18.83	I(1)	D(1)	A	A
Shahapur	1,72,810	662	0.38	I(4)	D(1)	C	C
Murbad	1,15,369	312	0.27	I(4)	D(1)	C	C
Kalyan	4,74,708	17,668	3.72	I(1)	D(1)	A	A
Ulhas- nagar	4,52,209	32,550	7.20	I(1)	D(1)	A	A
3. RAIGAD							
Alibag	1,63,961	2,088	1.27	I(2)	D(1)	A	A/C*
Uran	89,974	1,761	1.96	I(2)	D(1)	A	A
Panvel	2,01,582	8,878	4.40	I(1)	D(1)	A	A/C*
Karjat	1,29,492	1,098	0.85	I(3)	D(1)	B	A/C*
Khalapur	98,092	2,995	3.05	I(1)	D(1)	A	A/C*
Pen	1,18,945	1,651	1.39	I(2)	D(1)	A	A/C*
Sudhagad	46,427	516	1.11	I(2)	D(1)	A	C
Roha	1,08,320	4,880	4.51	I(1)	D(1)	A	C
Mangaon	1,58,071	833	0.53	I(3)	D(1)	B	D
Mohad	1,43,712	1,147	0.80	I(3)	D(1)	B	D
Poladpur	50,340	153	0.30	I(4)	D(2)	D	D
Mhasla	52,343	696	1.33	I(2)	D(1)	A	D
Shrivar- dhan	69,298	736	1.06	I(2)	D(1)	A	D
Murud	55,895	487	0.87	I(3)	D(1)	B	D

* Outside BMR Area.

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
4. RATNAGIRI							
Ratna-							
giri	2,11,200	2,551	1.21	I(2)	D(2)	B	D
Guhagar	1,08,774	393	0.36	I(4)	D(2)	D	D
Dapoli	1,60,303	780	0.49	I(4)	D(2)	D	D
Mandan-							
gad	62,045	150	0.24	I(4)	D(1)	C	D
Khed	1,66,042	930	0.56	I(3)	D(2)	C	D
Chiplun	2,14,215	1,816	0.85	I(3)	D(2)	C	D
Sangame-							
shwar	1,91,622	445	0.23	I(4)	D(2)	D	D
Lanja	96,384	266	0.28	I(4)	D(2)	D	D
Rajapur	1,69,070	992	0.59	I(3)	D(3)	D	D
Kanka-							
vali	1,21,459	849	0.70	I(3)	D(3)	D	D
Kudal	1,29,727	1,808	1.39	I(2)	D(3)	C	D
Sawant-							
wadi	1,67,489	2,667	1.59	I(2)	D(3)	C	D
Vengurla	85,557	1,236	1.44	I(2)	D(3)	C	D
Malwan	1,17,842	1,083	0.92	I(3)	D(3)	D	D
Devgad	1,09,582	427	0.39	I(4)	D(3)	D	D
5. NASHIK							
Nashik	6,26,777	26,161	4.17	I(1)	D(2)	A	B
Peint	98,963	116	0.12	I(4)	D(2)	D	D
Dindori	1,63,928	486	0.30	I(4)	D(2)	D	D
Surjana	82,841	47	0.06	I(4)	D(2)	D	D
Kalwan	1,56,087	412	0.26	I(4)	D(2)	D	D
Baglan	2,43,341	2,863	1.18	I(2)	D(2)	B	D
Malegaon	5,17,355	29,351	5.67	I(1)	D(2)	A	C
Chandvad	1,33,171	301	0.23	I(4)	D(2)	D	D
Nandgaon	1,69,449	958	0.57	I(4)	D(2)	D	D
Yevla	1,47,853	1,550	1.05	I(2)	D(2)	B	D
Niphod	2,91,669	6,396	2.19	I(2)	D(2)	B	C
Sinnar	1,93,078	7,926	4.11	I(1)	D(2)	A	D
Igatpuri	1,67,227	872	0.52	I(3)	D(2)	C	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
6. DHULE							
Dhule	4,83,701	11,288	2.33	I(2)	D(3)	C	D
Sakri	2,76,054	1,730	0.63	I(3)	D(3)	D	D
Nawapur	1,54,677	597	0.39	I(4)	D(3)	D	D
Nandur- bar	2,09,566	1,107	0.53	I(3)	D(3)	D	D
Talode	85,832	356	0.41	I(4)	D(3)	D	D
Akkal- kuwa	1,00,237	135	0.13	I(4)	D(3)	D	D
Akrani	63,285	6	0.01	I(4)	D(3)	D	D
Shahade	2,34,413	1,767	0.75	I(3)	D(3)	D	D
Shirpur	2,12,553	929	0.44	I(4)	D(3)	D	D
Shind- khed	2,29,976	945	0.41	I(4)	D(3)	D	D
7. JALGAON							
Jalgaon	3,02,384	7,396	2.45	I(2)	D(3)	C	C
Chopda	1,95,586	916	0.47	I(4)	D(3)	D	C
Yawal	1,97,152	1,830	0.93	I(3)	D(3)	D	D
Raver	2,09,091	1,055	0.50	I(3)	D(3)	D	D
Edala- bad	93,257	432	0.46	I(4)	D(3)	D	D
Bhusawal	2,94,174	3,269	1.11	I(2)	D(3)	C	C
Jamner	2,00,976	1,283	0.64	I(3)	D(3)	D	D
Pachora	1,82,855	1,691	0.92	I(3)	D(3)	D	D
Chalis- gaon	2,51,044	3,987	1.52	I(2)	D(3)	C	D
Bhadgaon	1,12,340	634	0.56	I(3)	D(3)	D	C
Parola	1,25,102	420	0.34	I(4)	D(3)	D	D
Erandol	2,28,905	2,509	1.10	I(2)	D(3)	C	C
Amalner	2,25,408	4,375	1.94	I(2)	D(3)	C	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
8. AHMEDNAGAR							
Nagar	3,65,957	15,082	4.12	I(1)	D(2)	A	C
Rahuri	2,04,093	2,692	1.32	I(2)	D(2)	B	C
Shriram- pur	2,91,672	9,617	3.30	I(1)	D(2)	A	C
Navasa	2,11,237	1,940	0.92	I(3)	D(2)	C	C
Shevgaon	1,38,275	731	0.53	I(3)	D(2)	C	C
Pathardi	1,47,837	514	0.35	I(4)	D(2)	D	D
Jamkhed	95,304	210	0.22	I(4)	D(2)	D	D
Karjat	1,46,618	685	0.47	I(4)	D(2)	D	D
Shrigo- nda	1,81,418	1,339	0.73	I(3)	D(2)	C	D
Parner	1,77,501	345	0.19	I(4)	D(2)	D	D
Akola	1,76,385	3,010	1.71	I(2)	D(2)	B	D
Samgam- ner	2,80,408	11,939	3.94	I(1)	D(2)	A	C
Kopar- gaon	2,91,604	7,837	2.69	I(1)	D(2)	A	C
9. PUNE							
Pune City							
Tahsil	13,80,395	71,216	5.16	I(1)	D(1)	A	A
Haveli	6,55,439	75,785	11.56	I(1)	D(1)	A	A/C*
Khed	2,31,886	1,147	0.49	I(4)	D(1)	C	A/C*
Ambegaon	1,60,746	444	0.28	I(4)	D(1)	C	D
Junnar	2,46,425	1,328	0.54	I(3)	D(1)	B	D
Shirur	1,82,835	2,237	1.22	I(2)	D(2)	B	D
Dound	1,88,608	2,481	1.32	I(2)	D(2)	B	C
Indapur	2,27,675	7,192	3.16	I(1)	D(2)	A	D
Baramati	2,57,511	2,742	1.06	I(2)	D(2)	B	C
Puran- dhar	1,61,409	1,044	0.65	I(3)	D(1)	B	D
Bhor	1,29,258	2,568	1.99	I(2)	D(1)	A	C
Velhe	45,379	261	0.58	I(3)	D(1)	B	D
Mulshi	1,09,105	1,114	1.02	I(2)	D(1)	A	A/C*
Mawal	1,87,799	4,255	2.27	I(2)	D(1)	A	A/C*

* Outside PMR

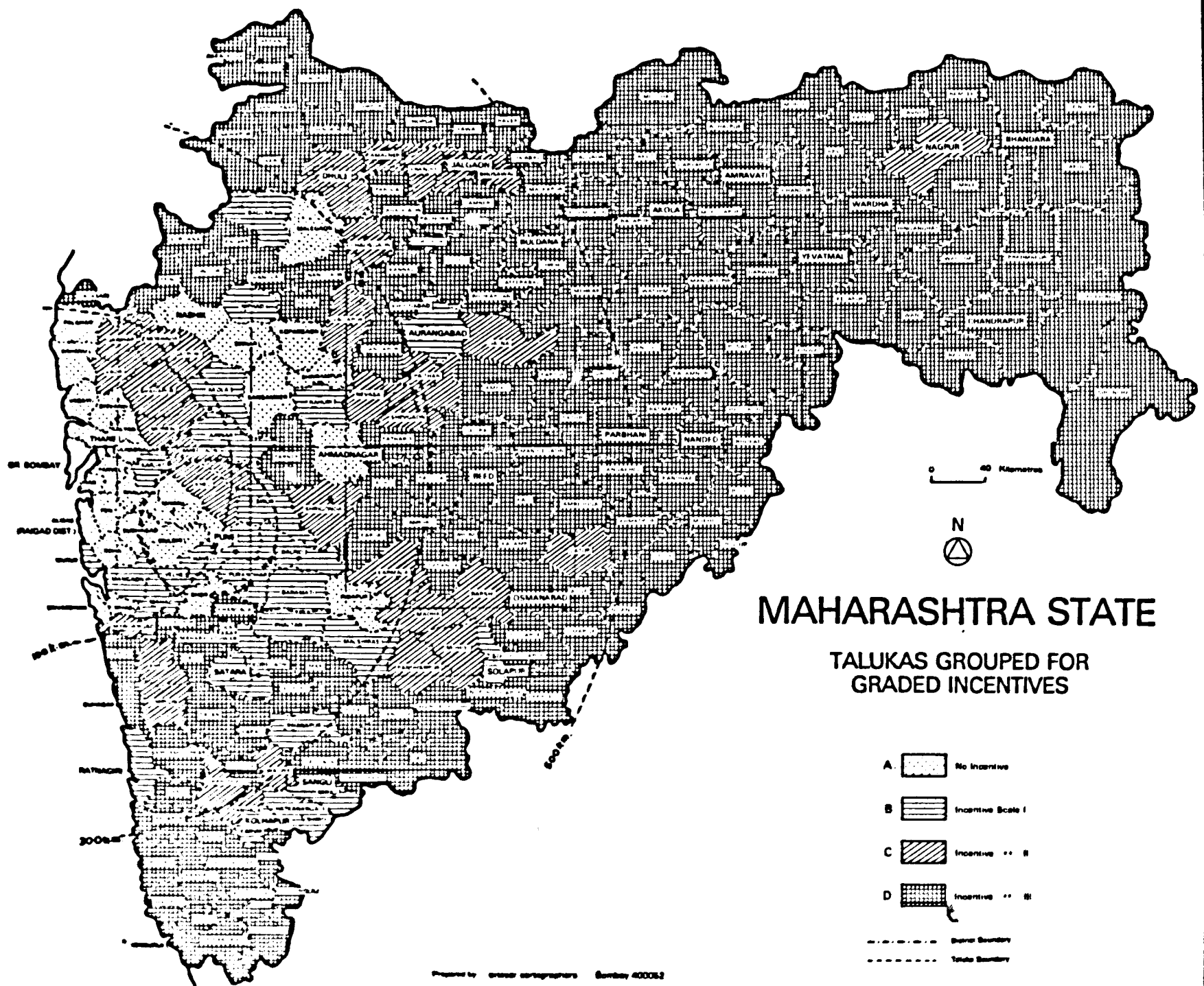
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Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Estab- lish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
10. SATARA							
Satara	2,92,635	5,110	1.75	I(2)	D(2)	B	D
Wai	1,43,217	1,623	1.13	I(2)	D(2)	B	D
Khandala	82,574	759	0.92	I(3)	D(2)	C	D
• Kore-							
gaon	1,90,605	3,074	1.61	I(2)	D(2)	B	D
Phaltan	2,24,018	2,913	1.30	I(2)	D(2)	B	C
Man	1,45,223	813	0.56	I(3)	D(2)	C	D
Khatav	2,02,701	661	0.33	I(4)	D(2)	D	D
Karad	3,82,677	8,717	2.28	I(2)	D(2)	B	C
Patan	2,33,265	831	0.36	I(4)	D(2)	D	D
Jaoli	1,05,277	162	0.15	I(4)	D(2)	D	D
Mahaba- leshwar	36,475	173	0.47	I(4)	D(2)	D	D
11. SANGLI							
Miraj	5,06,320	19,317	3.82	I(1)	D(3)	B	C
Tasgaon	3,00,597	5,222	1.74	I(2)	D(3)	C	D
Khanapur	2,17,958	2,440	1.12	I(2)	D(2)	B	D
Atpadi	84,016	323	0.38	I(4)	D(3)	D	D
Jat	1,93,096	1,191	0.62	I(3)	D(3)	D	D
Kavathe							
Mahankal	97,274	1,222	1.26	I(2)	D(3)	C	D
Walwa	3,01,302	2,209	0.73	I(3)	D(2)	C	D
Shirala	1,30,649	1,044	0.80	I(3)	D(3)	D	D

(Cont'd.)



MAHARASHTRA STATE

TALUKAS GROUPED FOR GRADED INCENTIVES

- A. No Incentive
- B. Incentive Scale I
- C. Incentive II
- D. Incentive III
- - - - - District Boundary
- - - - - Taluka Boundary

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
12. SOLAPUR							
Solapur							
North	6,15,608	63,228	10.27	I(1)	D(3)	B	C
Barshi	2,76,757	5,008	1.81	I(2)	D(3)	C	C
Akkalkot	2,15,510	2,052	0.95	I(3)	D(3)	D	D
Solapur							
South	1,51,031	500	0.33	I(4)	D(3)	D	D
Mohal	1,58,630	1,638	1.03	I(2)	D(3)	C	D
Mangal							
Vedhe	1,17,301	445	0.38	I(4)	D(3)	D	D
Pandhar-							
pur	2,37,680	2,734	1.15	I(2)	D(3)	C	D
Sangole	1,82,063	866	0.48	I(4)	D(3)	D	D
Malshi-							
ras	2,82,300	5,303	1.88	I(2)	D(2)	B	C
Karmala	1,65,714	1,390	0.84	I(3)	D(2)	C	D
Modha	2,07,550	3,003	1.45	I(2)	D(3)	C	D
13. KOLHAPUR							
Karvir	6,05,931	27,332	4.51	I(1)	D(3)	B	B
Panhala	1,70,823	3,850	2.25	I(2)	D(3)	C	D
Hatkana-							
ngale	4,27,648	45,455	10.63	I(1)	D(3)	B	C
Shirol	2,46,277	8,418	3.42	I(1)	D(3)	B	C
Kagal	1,83,028	692	0.38	I(4)	D(3)	D	D
Gadhil-							
garaj	1,74,760	1,732	0.99	I(3)	D(3)	D	D
Chandgad	1,34,936	2,214	1.64	I(2)	D(3)	C	D
Ajra	94,499	197	0.21	I(4)	D(3)	D	D
Bhudar-							
gad	1,08,061	194	0.18	I(4)	D(3)	D	D
Radhan-							
gori	1,50,915	801	0.53	I(3)	D(3)	D	D
Bavda	70,962	451	0.58	I(3)	D(3)	D	D
Shahu-							
wadi	1,38,490	741	0.54	I(3)	D(2)	C	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Estab- lish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8

14. AURANGABAD

Auranga- bad	5,15,994	18,894	3.68	I(1)	D(3)	B	B
Khulda- bad	69,879	433	0.62	I(3)	D(3)	D	D
Kannad	1,92,355	1,129	0.59	I(3)	D(3)	D	D
Soegaon	53,686	52	0.10	I(4)	D(3)	D	D
Sillod	2,22,798	1,062	0.48	I(4)	D(3)	D	D
Bhokar- dan	1,72,303	181	0.11	I(4)	D(3)	D	D
Jaffera- bad	84,168	157	0.19	I(4)	D(3)	D	D
Jalna	3,38,909	5,389	1.59	I(2)	D(3)	C	C
Ambod	2,56,274	765	0.30	I(4)	D(3)	D	D
Paithan	1,86,851	1,987	1.06	I(2)	D(3)	C	D
Gangapur	1,60,971	399	0.25	I(4)	D(2)	D	D
Vaijapur	1,79,232	1,135	0.63	I(3)	D(2)	C	D

15. PARBHANI

Parbhani	3,16,234	2,660	0.84	I(3)	D(3)	D	C
Jintur	1,96,714	662	0.34	I(4)	D(3)	D	D
Hingoli	2,41,588	1,715	0.71	I(3)	D(4)	D	D
Kalam- nuri	1,98,472	933	0.47	I(4)	D(4)	D	D
Basmath	2,22,611	1,472	0.66	I(3)	D(4)	D	C
Ganga- khed	2,29,033	1,065	0.46	I(4)	D(3)	D	D
Pathri	2,37,958	2,240	0.94	I(3)	D(3)	D	C
Partur	1,86,768	1,061	0.57	I(3)	D(3)	D	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Estab- lish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
16. <u>BEED</u>							
Beed	2,50,553	1,446	0.58	I(3)	D(3)	D	D
Georai	1,88,521	1,061	0.56	I(3)	D(3)	D	D
Manjegaon	2,20,494	1,067	0.48	I(4)	D(3)	D	D
Ambejogai	3,33,558	2,049	0.61	I(3)	D(3)	D	D
Kaij	2,13,444	579	0.27	I(4)	D(3)	D	D
Patoda	1,28,216	225	0.18	I(4)	D(3)	D	D
Ashti	1,51,244	421	0.28	I(4)	D(2)	D	D
17. <u>NANDED</u>							
Nanded	3,88,002	9,285	2.39	I(2)	D(4)	D	C
Hadgaon	2,08,498	303	0.15	I(4)	D(4)	D	D
Kinwat	1,98,999	367	0.18	I(4)	D(4)	D	D
Bhokar	1,34,138	287	0.21	I(4)	D(4)	D	D
Biloli	2,66,019	2,710	1.02	I(2)	D(4)	D	D
Doghur	1,30,010	396	0.30	I(4)	D(4)	D	D
Mukhod	1,57,134	315	0.20	I(4)	D(4)	D	D
Kandhar	2,66,534	958	0.36	I(4)	D(4)	D	D
18. <u>OSMANABAD</u>							
Osmana- bad	2,14,681	1,327	0.62	I(3)	D(3)	D	D
Kalamb	1,75,191	633	0.36	I(4)	D(3)	D	D
Latur	2,75,379	4,537	1.65	I(2)	D(3)	C	D
Ahmadpur	2,46,956	736	0.30	I(4)	D(4)	D	D
Udgir	2,74,636	1,306	0.48	I(4)	D(4)	D	D
Nilanga	2,40,782	1,241	0.52	I(3)	D(4)	D	D
Aurad	1,82,089	1,019	0.56	I(3)	D(3)	D	D
Omarga	2,30,048	1,039	0.45	I(4)	D(3)	D	D
Tuljapur	1,72,062	404	0.23	I(4)	D(3)	D	D
Paranda	1,16,467	420	0.36	I(4)	D(3)	D	D
Bhoom	1,02,329	532	0.52	I(3)	D(3)	D	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8

19. BULDHANA

Chikhli	3,97,384	2,347	0.59	I(3)	D(3)	D	D
Malkapur	3,12,231	1,745	0.56	I(3)	D(3)	D	D
Jalgaon	1,65,629	1,120	0.68	I(3)	D(4)	D	D
Khamgaon	2,78,294	2,850	1.02	I(2)	D(4)	D	D
Mehkar	3,55,239	1,152	0.32	I(4)	D(3)	D	D

20. AKOLA

Akola	5,13,059	11,202	2.18	I(2)	D(4)	D	C
Akot	2,80,428	1,779	0.63	I(3)	D(4)	D	D
Murtija- pur	2,46,772	2,198	0.89	I(3)	D(4)	D	D
Mangrul- pir	2,07,865	921	0.44	I(4)	D(4)	D	D
Washim	3,71,683	2,043	0.55	I(3)	D(4)	D	D
Balapur	2,07,145	1,421	0.69	I(3)	D(4)	D	D

21. AMRAVATI

Amravati	6,02,587	7,167	1.19	I(2)	D(4)	D	C
Achalpur	3,06,929	4,812	1.57	I(2)	D(4)	D	D
Morshi	3,02,531	1,406	0.46	I(4)	D(4)	D	D
Chandur	2,67,156	2,507	0.94	I(3)	D(4)	D	D
Daryapur	2,39,397	1,636	0.68	I(3)	D(4)	D	D
Melghat	1,42,810	143	0.10	I(4)	D(4)	D	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8
22. <u>YAVATMAL</u>							
Yavatmal	3,43,335	4,406	1.28	I(2)	D(4)	D	D
Kelapur	3,02,276	2,044	0.68	I(3)	D(4)	D	D
Wani	2,51,177	2,728	1.09	I(2)	D(4)	D	D
Pusod	4,41,160	2,942	0.67	I(3)	D(4)	D	D
Daraha	3,99,475	2,146	0.54	I(3)	D(4)	D	D
23. <u>WARDHA</u>							
Wardha	4,24,770	7,204	1.70	I(2)	D(4)	D	D
Arvi	2,49,188	1,325	0.53	I(3)	D(4)	D	D
Hingaghat	2,52,660	6,138	2.43	I(2)	D(4)	D	D
24. <u>NAGPUR</u>							
Nagpur	15,50,698	55,886	3.60	I(1)	D(4)	C	C
Katol	2,36,593	1,617	0.68	I(3)	D(4)	D	D
Savner	2,24,611	2,175	0.97	I(3)	D(4)	D	D
Ramtek	2,93,233	3,557	1.21	I(2)	D(4)	D	D
Umred	2,83,676	1,139	0.40	I(4)	D(4)	D	D
25. <u>BHANDARA</u>							
Bhandara	5,90,781	13,153	2.23	I(2)	D(4)	D	D
Gondiya	7,03,373	12,631	1.80	I(2)	D(4)	D	D
Sakali	5,43,423	2,893	0.53	I(3)	D(4)	D	D

(Cont'd.)

Annexure B

Classification of Talukas into Groups for Graded Incentives

District/ Tahsil	1981 Population	Workers in Esta- blish- ments	Percent- age of Col.(3) to Col.(2)	Industr- ial Dev- elopment Indicator	Distance from Bombay- Pune -Class-	Incentive Group Assigned	Group Assigned by 1983 Package Scheme of Incentives
1	2	3	4	5	6	7	8

26. CHANDRAPUR

Chandra- pur	5,50,165	13,196	2.40	I(2)	D(4)	D	C
Warsda	3,70,530	2,220	0.60	I(3)	D(4)	D	C
Brahma- puri	3,29,827	1,338	0.41	I(4)	D(4)	D	D
Godewroli	4,57,898	1,401	0.31	I(4)	D(4)	D	D
Sironcha	1,79,438	602	0.34	I(4)	D(4)	D	D
Rajura	1,67,784	433	0.26	I(4)	D(4)	D	D

Annexure C

MAHARASHTRA STATE PUBLIC SECTOR INDUSTRIES

District	Industrial Unit/Projects	Name of the Undertaking
1. Greater Bombay.	i) Sugras Factory)	Maharashtra Agro- Industries Development Corporation Ltd.
	ii) Bottling Plant)	
	iii) Manufacture of Basic Drugs, Vaccines, Sera, Blood Products & other Pharmaceuticals.	Haffkine Bio-Pharmaceu- tical Corporation Ltd.
	iv) Bacon Factory)	MAFCO Ltd.
	v) Frozen Food Factory)	
	vi) Audio Visual Division.	Maharashtra Electronics Corporation Ltd.
	vii) Western India Spinning and Manufacturing Mills. (Taken over)	Maharashtra State Textile Corporation.
<u>KONKAN (Excluding Gr. Bombay)</u>		
2. Thane	i) Saphala Salt Works.)	Development Corporation of Konkan Ltd.
	ii) Konkan Sea Foods Ltd.)	
3. Raigad	i) Fertilizer Factory at Rasayani	Maharashtra Agro- Industries Development Corporation Ltd.
4. Ratnagiri (including Sindhudurg)	i) Sahyadri Glass Works.	Development Corporation of Konkan Ltd.
	ii) Instrumentation Project.	Maharashtra Electronics Corporation Ltd.
	iii) Khandsari Factory.	Maharashtra Agro- Industries Development Corporation Ltd.
<u>WESTERN MAHARASHTRA</u>		
5. Nashik	Semi-conductors.	Maharashtra Electronics Corporation Ltd.'s Subsidiary, Meltron Semiconductors Ltd.

District	Industrial Unit/Projects	Name of the Undertaking
6. Dhule	-	-
7. Jalgaon	i) Pratap Spinning & Weaving Mills Ltd.	Maharashtra State Textile Corporation Ltd.
	ii) Fertilizer Factory.	Maharashtra Agro-Industries Development Corporation Ltd.
	iii) Ajanta Pharmaceuticals Ltd.	Haffkine Bio-Pharmaceutical Corporation Ltd.
8. Ahmednagar	i) Chitali Distillery.	Western Maharashtra Development Corpn. Ltd.
9. Pune	i) Central Workshop at Dapodi	Maharashtra State Road Transport Corporation.
	ii) Agricultural Engineering Factory.	Maharashtra Agro-Industries Development Corporation Ltd.
	iii) Sugras Factory.	
	iv) Frozen Food Factory.	MAFCO Ltd.
10. Satara	i) Frozen Food Factory.	MAFCO Ltd.
11. Sangli	-	-
12. Solapur	i) Narsinggirji Mills.	Maharashtra State Textile Corporation Ltd.
13. Kolhapur	i) Watch Assembly Plant.	Western Maharashtra Development Corpn. Ltd.
	ii) Shree Shahu Chhatrapati Mills	Maharashtra State Textile Corporation Ltd.
<u>MARATHWADA</u>		
14. Aurangabad (including Jalna)	i) Godavari Garments.	Marathwada Development Corporation Ltd.
	ii) Devgiri Textile Mills.	Maharashtra State Textile Corporation Ltd.
	iii) Central Workshop at Chikalthana.	Maharashtra State Road Transport Corporation.

District	Industrial Unit/Projects	Name of the Undertaking
15. Parbhani	i) Cotton Seeds Processing Complex (3 units).	Maharashtra State Oil Seeds Commercial and Industrial Corpn. Ltd.
16. Beed	i) Leather Industries Corporation of Marathwada (LICOM Ltd.)	Marathwada Development Corporation.
17. Nanded	i) Kinwat Roofing Tiles.) ii) Ceramics Project.) iii) TEXCOM.)	Marathwada Development Corporation.
	iv) Frozen Food Factory.	MAFCO Ltd.
18. Osmanabad (including Latur)	-	-
<u>VIDARBHA</u>		
19. Buldana	-	-
20. Akola	i) Pesticides Formulation Plant.	Maharashtra Agro-Industries Development Corporation Ltd.
21. Amravati	i) Oil Mill & Solvent Extraction Plant.	Maharashtra Oil Seeds Commercial & Industrial Corporation Ltd.
	ii) Vijay Mills, Badnera.	Maharashtra State Textile Corporation Ltd.
22. Yavatmal.	-	-
23. Wardha	i) Khandsari Factory.	Development Corporation of Vidarbha Ltd.
	ii) Pulgaon Cotton Mills Ltd.	Maharashtra State Textile Corporation Ltd.
	iii) Fertilizer Factory.	Maharashtra Agro-Industries Development Corporation Ltd.

District	Industrial Unit/Projects	Name of the Undertaking
24. Nagpur	i) Carpet Weaving Project)	Development Corporation of Vidarbha Ltd.
	ii) Gondvana Paints)	
	iii) Noga Bottling Plant	Maharashtra Agro- Industries Development Corporation Ltd.
	iv) Radio Communication Project	Maharashtra Electronics Corporation Ltd.
	v) Kalmeshwar Textile Mills	Maharashtra State Textile Corporation Ltd.
	vi) Central Workshop at Hingne.	Maharashtra State Road Transport Corporation.
25. Bhandara	i) Khandsari Factory	Development Corporation of Vidarbha Ltd.
26. Chandrapur (including Gadchiroli)	i) Vidarbha Tanneries Ltd.	Development Corporation of Vidarbha Ltd.

CHAPTER XIV

AGRICULTURE

14.1. Agriculture is the main source of livelihood of a majority of the population of Maharashtra, like it is generally all over India. According to the 1981 Population Census, 64.97 per cent of the State's population lived in rural areas; excluding Greater Bombay, the proportion was 74.81 per cent. Excepting the three districts of Nagpur, Pune and Thane, where the rural population was between 43 and 55 per cent, in all other districts, the rural population constituted 69 per cent or more of the population. (See Table 4.4 where the proportion of urban population in different districts is shown.) The bulk of the rural population derives its income from agriculture. Hence, differences in agricultural conditions and development constitute an important factor in the regional disparities in development in the State.

Land for Agriculture :

14.2. Of the rural population, cultivators and agricultural labourers, together called Agricultural Workers in the censuses, depend directly on agriculture. In relation to this population, land for agriculture is not available to the same extent in all the districts. In Col.2 of Table 14.1, we give the number of male agricultural workers in each district according to the 1981 Census. We prefer to use the figures of male workers only because the classification of women between workers and non-workers, particularly in cultivator and agricultural labour households, is not very reliable. In Col.3 of the Table, we show the average Net Sown Area in the three years 1978-79 to 1980-81. In Col.4 is shown the Net Sown Area per male agriculture worker. In the State as a whole the average is 2.06 hectares per male agricultural worker. It varies from 2.72 in Aurangabad and Beed and 2.71 in Solapur to 1.18 in Bhandara, 1.06 in Kolhapur, 0.99 in Raigad, and 0.87 in Thane.

14.3. But agricultural land in different districts is not of uniform quality as reflected in the value of its produce. In Col.5 of Table 14.1, we show the gross value of output of agriculture - average for the three years 1978-79 to 1980-81. In Col.6, this is shown per hectare of sown area. In the State as a whole, the gross value of agricultural output per hectare is Rs.1,828.38. It varies from Rs.4,069.10 in Kolhapur, Rs.3,308.60 in Raigad, Rs.3,115.50 in Ratnagiri, and Rs.3,027.47 in Jalgaon to Rs.1,398.33 in Yavatmal, Rs.1,367.78 in Beed, Rs.1,333.57 in Solapur, and Rs.1,278.69 in Akola.

14.4. Combining agricultural land per male agricultural worker and gross value of agricultural output per hectare gives the gross value of agricultural output per male agricultural worker. This is shown in Col.7 of Table 14.1. In the State as a whole,

Table 14.1

Net Sown Area and Gross Value of Output of Agriculture

District	Number of Male Agricultural Workers (1981)	Average of Net Sown Area for 1978-79 to 1980-81 ('000 hectares)	Net Sown Area per Male Agricultural Worker Col.(3)/ Col.(2) (hectares)	Gross Value of Output of Agriculture Average for 1978-79 to 1980-81 (Rs.Lak's)	Gross Value of Output per hectare Col.(5)/ Col.(3) (Rs.)	Gross Value of Output per Male Worker Col.(5)/ Col.(2) (Rs.)
1	2	3	4	5	6	7
1.Greater Bombay	4,761	6.40	1.34	146	2,281.25	3,066.58
2.Thane	304,164	263.90	0.87	6,980	2,644.94	2,294.81
3.Raigad	196,768	195.40	0.99	6,465	3,308.60	3,285.60
4.Ratnagiri	249,123	356.70	1.43	11,113	3,115.50	4,460.85
KONKAN						
(excl. G.B.)	750,055	816.00	1.09	24,558	3,009.56	3,274.16
5.Nashik	469,810	905.00	1.93	17,725	1,958.56	3,772.80
6.Dhule	391,711	705.50	1.80	11,031	1,563.57	2,816.11
7.Jalgaon	458,749	815.40	1.78	24,686	3,027.47	5,381.16
8.Ahmednagar	492,265	1,224.30	2.49	21,784	1,779.30	4,425.26
9.Pune	412,030	1,003.50	2.44	19,603	1,953.46	4,757.66
10.Satara	296,542	574.10	1.94	13,368	2,328.51	4,507.96
11.Sangli	316,333	610.90	1.93	13,306	2,178.10	4,203.99
12.Solapur	416,080	1,127.50	2.71	15,036	1,333.57	3,613.73
13.Kolhapur	396,922	422.60	1.06	17,196	4,069.10	4,332.34
WESTERN						
MAHARASHTRA	3650,242	7,388.80	2.02	153,735	2,080.65	4,211.64
14.Aurangabad	460,883	1,252.40	2.72	18,414	1,470.30	3,995.37
15.Parbhani	386,443	1,002.70	2.59	14,769	1,472.92	3,821.78
16.Beed	296,634	807.00	2.72	11,038	1,367.78	3,721.08
17.Nanded	342,136	737.80	2.16	10,896	1,476.82	3,184.70
18.Osmanabad	456,120	1,125.20	2.47	18,209	1,618.29	3,992.15
MARATHWADA	1942,216	4,925.10	2.54	73,326	1,488.82	3,775.38
19.Buldhana	320,881	680.10	2.12	11,729	1,724.60	3,655.25
20.Akola	354,887	823.50	2.32	10,530	1,278.69	2,967.14
21.Amravati	352,957	721.70	2.04	12,114	1,678.54	3,432.15
22.Yavatmal	372,697	851.30	2.28	11,904	1,398.33	3,194.02
23.Wardha	172,449	435.50	2.53	7,391	1,697.13	4,285.90
24.Nagpur	242,626	557.40	2.30	9,103	1,633.12	3,751.87
25.Bhandara	323,717	381.40	1.18	8,857	2,322.23	2,736.03
26.Chandrapur	395,865	686.50	1.73	10,749	1,565.77	2,715.32
VIDARBHA	2536,079	5,137.40	2.03	82,377	1,603.48	3,248.70
MAHARASHTRA STATE	8883,353	18,273.70	2.06	334,142	1,828.54	3,761.44
MAHARASHTRA STATE						
(excl. G.B.)	8878,592	18,267.30	2.06	333,996	1,828.38	3,761.81

It is Rs.3,761.81. It varies from Rs.5,381.16 in Jalgaon, Rs.4,757.66 in Pune, and Rs.4,507.96 in Satara to Rs.2,736.03 in Bhandara, Rs.2,715.32 in Chandrapur, and Rs.2,294.81 in Thane.

14.5. We may note that Gross Value of Output of Agriculture is gross of costs of inputs and therefore is not the same as net income from agriculture. For this purpose, the per capita domestic product, that is value added, from agriculture and allied activities is more relevant. (see para 4.22)

Cropping Pattern :

14.6. Broadly speaking, agricultural development consists in producing greater valued output per hectare of land. In the context of Maharashtra, this means availability of irrigation and growing of commercial crops such as oilseeds, cotton and sugarcane. The two elements are combined in the cultivation of sugarcane so that cultivation of sugarcane has come to be regarded the hallmark of agricultural development. Sugarcane has another advantage. As experience has shown, it is the most convenient crop, unlike oilseeds and cotton, to organise the processing industry in the co-operative sector, particularly in the form of agricultural producer co-operatives. It has thus proved a powerful vehicle to promote industrial entrepreneurship among the agriculturists.

14.7. In Col.2 of Table 14.2, we give the percentage of Gross Cropped Area (1978-79) irrigated from all sources. In the State as a whole, it is 11.89. In Bhandara, it is 28.78. If we leave this aside, the percentage of gross cropped area irrigated varies from 20.51 in Ahmednagar, 18.35 in Satara, 16.49 in Pune, 16.23 in Sangli, and 15.36 in Kolhapur to less than 5 per cent in Thane, Raigad, Ratnagiri, and Buldhana, Akola, Amravati, and Yavatmal.

14.8. Due to the difference in soil and climatic conditions and development of irrigation, the different regions of the State have noticeably different crop patterns. Table 14.2 gives the percentage of the gross cropped area under foodgrains (Col.3), oilseeds (Col.4), cotton (Col.5), and sugarcane (Col.6) in 1978-79. Maharashtra is a predominantly foodgrains growing State, with nearly 70 per cent of the gross cropped area under foodgrains. However, Vidarbha region is markedly different from the others : excluding the districts of Bhandara, Chandrapur and Nagpur, the remaining 5 districts have just about half the gross cropped area under foodgrains. As against this, all the other districts of the State show much heavier concentration of area under foodgrains : the districts of Ratnagiri, Jalgaon, Kolhapur, Parbhani and Nanded have between 60 to 65 per cent and all other districts have more than 70 per cent area under foodgrains.

14.9. Among foodgrains, cereals occupy about 55 per cent of the gross cropped area, and pulses about 15 per cent. The most important cereals are Rabi and Kharif jowar, occupying between them 31 per cent of the area, followed by bajra, rice and wheat,

Table 14.2

Percentage of Cross Cropped Area, 1978-79 : Under :

District	Irrigation	Foodgrains	Oilseeds	Cotton	Sugarcane
1	2	3	4	5	6
1. Greater Bombay	10.29	-	-	-	-
2. Thane	2.72	70.73	0.91	-	0.04
3. Raigad	4.03	83.21	0.91	-	-
4. Ratnagiri	4.65	61.62	3.65	-	0.08
<u>KONKAN</u>					
(excl. G.B.)	3.88	69.84	2.10	-	0.05
5. Nashik	14.89	75.67	9.19	0.33	2.52
6. Dhule	11.10	74.49	14.17	7.31	1.44
7. Jalgaon	13.00	63.27	9.92	19.89	0.88
8. Ahmednagar	20.51	77.75	7.35	1.44	4.61
9. Pune	16.49	73.03	6.16	0.97	1.98
10. Satara	18.35	72.92	11.14	1.26	2.97
11. Sangli	16.23	72.41	9.31	0.46	4.47
12. Solapur	13.20	86.87	7.82	1.13	1.69
13. Kolhapur	15.36	53.26	12.41	0.21	11.47
<u>WESTERN MAHARASHTRA</u>	<u>15.66</u>	<u>74.10</u>	<u>9.17</u>	<u>3.72</u>	<u>3.05</u>
14. Aurangabad	12.49	74.06	11.61	11.18	1.44
15. Parbhani	6.59	65.49	11.28	20.56	0.23
16. Beed	13.27	80.97	13.74	2.87	1.01
17. Nanded	5.63	63.31	6.01	25.63	0.75
18. Osmanabad	13.62	76.75	14.70	2.64	1.60
<u>MARATHWADA</u>	<u>10.61</u>	<u>72.40</u>	<u>11.77</u>	<u>11.98</u>	<u>1.05</u>
19. Buldhana	4.16	59.26	10.61	28.32	0.23
20. Akola	2.65	53.67	6.01	39.35	0.07
21. Amravati	4.94	45.71	7.20	44.46	0.04
22. Yavatmal	2.86	50.45	6.05	42.16	0.23
23. Wardha	7.89	51.44	9.01	37.85	0.04
24. Nagpur	10.12	67.78	11.35	13.02	0.05
25. Bhandara	28.78	88.40	9.27	-	0.16
26. Chandrapur	17.57	81.35	10.66	5.45	0.01
<u>VIDARBHA</u>	<u>8.68</u>	<u>56.93</u>	<u>8.54</u>	<u>27.93</u>	<u>0.11</u>
<u>MAHARASHTRA STATE</u>	<u>11.89</u>	<u>69.77</u>	<u>9.39</u>	<u>12.57</u>	<u>1.57</u>
<u>(excl. G.B.)</u>	<u>11.84</u>	<u>69.77</u>	<u>9.39</u>	<u>12.57</u>	<u>1.57</u>

W.P.

in that order. The three districts of Konkan, and Bhandara and Chandrapur are predominantly paddy growing districts. The other six districts of Vidarbha are mainly kharif jowar area. The two districts of Nashik and Dhule are mainly bajra growing districts - they have more land under bajra than under Kharif and Rabi jowar combined. The districts of Pune, Ahmednagar and Solapur on the other hand are pre-dominantly Rabi jowar growing areas, with bajra and Kharif jowar being of comparatively smaller importance. Kolhapur is mainly a paddy and Kharif jowar growing district, while the two districts of Sangli and Satara have three crops, Kharif and Rabi jowar and bajra of equal importance. The districts of Marathwada region are mainly jowar growing, with Rabi jowar being comparatively important in Aurangabad (including Jalna), Beed and Parbhani and Kharif jowar in Nanded, Osmanabad (and Latur) districts. Wheat, a less important cereal in the State, is grown in all districts except the coastal district of Konkan; but it is relatively more significant in the districts of Nashik, Dhule and Jalgaon in Western Maharashtra, in Beed, Parbhani and Aurangabad in Marathwada and in Nagpur and Wardha districts of Vidarbha region. Pulses are grown in every district, but they are more important in Marathwada, Vidarbha and in the districts of Jalgaon and Dhule in Western Maharashtra, and of less importance in the Konkan region. Thus, the development of agriculture in the different regions depends first of all upon the development of these cereal and pulse crops in the respective regions and districts.

14.10. Besides foodgrains, the other important crops grown in the State are cotton, groundnut and sugarcane. Cotton occupies about 12 per cent of the gross cropped area. It is, however, concentrated in three regions: in the six districts of Vidarbha region (excluding Bhandara and Chandrapur), in Aurangabad, Parbhani and Nanded districts of Marathwada, and in Dhule and Jalgaon districts of Western Maharashtra. In the four districts of the Amravati division, it is very important, accounting for almost 40 per cent of the gross cropped area.

14.11. Groundnut is the most important oilseed in the State accounting for about 4 per cent of the gross cropped area. While it is grown in most districts except the dominant rice-growing ones, it is particularly significant in the districts of Jalgaon, Dhule, Nashik, Satara, Sangli, and Kolhapur in Western Maharashtra and Osmanabad in Marathwada where it forms almost 10 per cent of the gross cropped area. In the other districts of Marathwada as well as in Vidarbha it constitutes about 3 to 4 per cent of the gross cropped area.

14.12. Sugarcane occupies hardly 1.57 per cent of the gross cropped area of the State, but in terms of total value of production is the single most important crop in the State. However, its production is concentrated in regions where perennial irrigation facilities are available. These are today in the districts of Western Maharashtra. More than 11 per cent of the Gross Cropped Area (G.C.A.) in Kolhapur, around 4.5 per cent in the districts of Ahmednagar and Sangli, between 2.5 to 3

Table 14.3

Districtwise Annual Compound Growth Rates of Production
of Total Foodgrains, Cotton, Sugarcane and Total Oilseeds

(Period 1960-61 to 1981-82 with triennium ending 1961-62 as base)
(Per cent)

District	Total Foodgrains	Total Oilseeds	Cotton	Sugarcane
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	1.3	-	-	-
3. Raigad	1.7	-	-	-
4. Ratnagiri	2.8	-	-	-
5. Nashik	2.4	1.7	(-) 6.9	7.5
6. Dhule	7.9	(-) 1.0	(-) 1.0	13.1
7. Jalgaon	4.0	1.6	(-) 1.8	14.1
Bombay Dn.	2.6	0.6	(-) 1.8	9.3
8. Ahmednagar	1.9	7.2	(-) 6.2	3.3
9. Pune	3.4	6.1	0.7	5.6
10. Solapur	0.2	(-) 0.3	3.0	5.1
11. Satara	2.3	(-) 1.3	5.7	7.0
12. Sangli	0.7	(-) 3.6	(-) 2.9	7.9
13. Kolhapur	2.9	(-) 0.3		3.7
Pune Dn.	1.9	0.5	(-) 0.8	4.7
14. Aurangabad	2.4	6.2	0.0	6.0
15. Parbhani	3.0	5.9	1.8	4.4
16. Beed	2.7	(-) 1.2	(-) 4.2	8.4
17. Nanded	2.1	(-) 1.6	1.5	6.1
18. Osmanabad	3.4	(-) 1.1	(-) 2.7	8.2
Aurangabad Dn.	3.0	1.2	0.4	6.8
19. Buldhana	4.8	6.6	0.1	4.6
20. Akola	3.5	0.7	1.4	-
21. Amravati	4.2	3.6	(-) 0.3	-
22. Yavatmal	3.8	2.7	2.0	13.9
23. Wardha	3.7	5.4	3.4	-
24. Nagpur	3.0	2.4	1.3	-
25. Bhandara	2.1	(-) 1.5	-	5.2
26. Chandrapur	2.3	1.6	5.0	-
Nagpur Dn.	3.3	2.8	1.1	6.9
TOTAL MAHARASHTRA STATE	2.7	1.1	0.4	5.4

Table 14.4

Total Area under Kharif Jowar, Rabi Jowar, Bajra, Paddy, Wheat
and Tur in 1982-83

(Area in Hectares)

District	Normal Area	Hybrid Area	High Yielding Variety Area	Percentage of Hybrid Area to Normal Area	Percentage of High Yielding Variety Area to Normal Area
1	2	3	4	5	6
1. Greater Bombay	1,700	-	-	-	-
2. Thane	157,700	30	103,874	0.02	65.87
3. Raigad	143,100	-	106,318	-	74.30
4. Ratnagiri	149,500	322	83,414	0.22	55.80
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>450,300</u>	<u>352</u>	<u>293,606</u>	<u>0.08</u>	<u>65.20</u>
5. Nashik	676,000	161,837	190,135	23.94	28.13
6. Dhule	492,700	207,495	161,138	42.11	32.71
7. Jalgaon	601,500	285,827	255,675	47.52	42.51
8. Ahmednagar	1074,100	80,241	112,226	7.47	10.45
9. Pune	767,500	22,349	119,084	2.91	15.52
10. Satara	446,400	54,073	105,976	12.11	23.74
11. Sangli	446,300	75,022	105,761	16.91	23.70
12. Solapur	963,700	25,094	153,781	2.60	15.96
13. Kolhapur	165,700	27,307	97,462	16.48	16.48
<u>WESTERN MAHARASHTRA</u>	<u>5633,900</u>	<u>939,245</u>	<u>1311,238</u>	<u>16.67</u>	<u>23.27</u>
14. Aurangabad	1061,100	267,598	329,372	25.22	31.04
15. Parbhani	612,000	94,455	281,495	15.43	45.96
16. Beed	640,200	158,911	169,656	24.82	26.50
17. Nanded	482,800	119,894	208,321	24.83	43.15
18. Osmanabad	839,100	178,502	320,305	21.27	38.17
<u>MARATHWADA</u>	<u>3635,200</u>	<u>819,360</u>	<u>1309,949</u>	<u>22.54</u>	<u>36.04</u>
19. Buldhana	472,800	193,055	155,502	40.83	32.89
20. Akola	488,100	123,844	190,047	25.37	38.94
21. Amravati	330,600	120,079	111,549	36.32	33.74
22. Yavatmal	443,700	154,743	131,553	34.88	29.65
23. Wardha	237,900	80,092	95,710	33.67	40.23
24. Nagpur	385,400	69,569	136,125	18.05	35.32
25. Bhandara	361,000	245	188,617	0.07	52.25
26. Chandrapur	528,000	16,390	169,581	3.10	26.44
<u>VIDARBHA</u>	<u>3247,500</u>	<u>761,617</u>	<u>1178,684</u>	<u>23.45</u>	<u>36.30</u>
<u>MAHARASHTRA STATE</u>	<u>12968,600</u>	<u>2520,574</u>	<u>4093,477</u>	<u>19.44</u>	<u>31.56</u>
<u>(excl. G.B.)</u>	<u>12966,900</u>	<u>2520,574</u>	<u>4093,477</u>	<u>19.44</u>	<u>31.57</u>

per cent in the districts of Satara and Nashik and between 1.5 to 2 per cent in the districts of Pune, Solapur and Dhule are under sugarcane.

Agricultural Growth :

14.13. The annual compound growth rate of total agricultural production, (at constant prices) in the State has been a little over 1 per cent during the two decades of the Sixties and Seventies. Cropwise the performance was of course uneven. During the 22 years, from 1960-61 to 1981-82, production of total foodgrains increased at an annual compound rate of 2.7 per cent. (Table 14.3). The growth in foodgrains has been particularly significant in the 5 years, 1977-78 to 1981-82. The foodgrain crops which registered significant increases are kharif jowar, rice and wheat. Kharif jowar which is the dominant cereal crop in 6 of the Vidarbha districts, in parts of Marathwada region, and in Dhule, Jalgaon, and Nashik districts of Western Maharashtra, registered a somewhat higher growth rate in production during this period, mainly on account of increase in per acre yields. Rice, another important cereal, also registered significant growth rate in production, though not as much as for all foodgrains. Among the major paddy growing regions of Konkan and Bhandara and Chandrapur, the growth rate was higher in the latter two districts. The highest growth in production was recorded in case of wheat; this was more or less the case in all districts growing wheat, though the growth was higher in districts where there was wheat area under irrigation. In this case also the major source of increase in production was the increase in per acre yields.

14.14. As against these three foodgrains, production of Rabi jowar, bajra and pulses showed little or no significant growth over these 20 years. Rabi jowar is the main cereal in large part of the unirrigated area of Western Maharashtra and Western part of Marathwada region, and this showed no significant increase in production, since it is grown under unirrigated condition. Bajra and pulses also registered very small growth rates of production.

Reasons

14.15. The increase in production and productivity of foodgrains was due to extension of high yielding varieties and hybrid seeds of kharif jowar, wheat and rice. Table 14.4 shows the percentage of normal area under the cereal crops - kharif and rabi jowar, wheat, rice, bajra, and tur, which were put under HYV's or Hybrid seeds during the year 1982-83. Hybrids refer to jowar and bajra while HYV's refer to wheat, rice and tur. Taking the two together, 51 per cent of the normal area under these crops in the State was covered by these improved varieties of seed by 1982-83. The coverage was higher than the State average in all the regions except Western Maharashtra. The districts that were below the State average were Ahmednagar, Pune, Satara, Sangli, Solapur, Kolhapur and Chandrapur. One important reason for the poor extension of Hybrid seeds in these districts of Western Maharashtra is that Rabi jowar is a very important cereal here, and its new hybrid seeds have not been successful under

Table 14.5

Area under Hybrid and HYV Cotton, Groundnut, Sunflower in 1982-83
(Area in Hectares)

District	Normal Area	Hybrid Area	High Yielding Variety Area	Percentage of Hybrid Area to Normal Area	Percentage of High Yielding Variety Area to Normal Area
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	3,100	-	100	-	3.22
3. Raigad	-	-	100	-	-
4. Ratnagiri	3,500	-	2,000	-	57.14
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>6,600</u>	<u>-</u>	<u>2,200</u>	<u>-</u>	<u>33.33</u>
5. Nashik	88,400	433	61,567	0.49	69.65
6. Dhule	183,800	6,964	160,636	3.79	87.40
7. Jalgaon	248,200	15,068	250,732	6.07	101.02
8. Ahmednagar	26,500	389	23,611	1.47	89.10
9. Pune	51,600	2,419	35,781	4.69	69.34
10. Satara	69,400	1,782	70,718	2.57	101.90
11. Sangli	57,800	2,575	33,400	4.46	57.78
12. Solapur	64,100	1,781	60,119	2.78	93.79
13. Kolhapur	56,800	625	53,000	1.10	93.31
<u>WESTERN MAHARASHTRA</u>	<u>846,600</u>	<u>32,036</u>	<u>749,564</u>	<u>3.78</u>	<u>88.54</u>
14. Aurangabad	174,100	50,607	155,493	29.06	89.31
15. Parbhani	211,700	38,885	211,215	18.37	99.77
16. Beed	77,800	2,645	79,755	3.40	102.51
17. Nanded	234,000	46,467	185,633	19.86	79.33
18. Osmanabad	253,600	1,096	99,104	0.43	39.08
<u>MARATHWADA</u>	<u>951,200</u>	<u>139,700</u>	<u>731,200</u>	<u>14.69</u>	<u>76.87</u>
19. Buldhana	242,400	93,282	196,518	38.48	81.07
20. Akola	361,200	37,248	329,752	10.31	91.29
21. Amravati	375,100	31,078	356,322	8.29	94.99
22. Yavatmal	396,500	100,015	336,285	25.22	84.91
23. Wardha	188,400	69,465	116,835	36.87	62.01
24. Nagpur	118,000	22,016	81,284	18.66	68.88
25. Bhandara	3,200	-	1,100	-	34.37
26. Chandrapur	83,600	14,366	35,434	17.18	42.39
<u>VIDARBHA</u>	<u>1768,400</u>	<u>367,470</u>	<u>1453,530</u>	<u>20.78</u>	<u>82.19</u>
<u>MAHARASHTRA STATE</u>	<u>3572,800</u>	<u>539,206</u>	<u>2936,494</u>	<u>15.09</u>	<u>82.19</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>3572,800</u>	<u>539,206</u>	<u>2936,494</u>	<u>15.09</u>	<u>82.19</u>

unirrigated condition. Hybrid bajra has also not caught on because of risk of certain types of pests, and some of these districts have significant land under bajra. Chandrapur, a mainly paddy growing district, also shows rather poor use of HYV seeds.

14.16. The non-foodgrain crops, with the exception of sugarcane, however, have registered poor rates of increase in production during the last two decades. Cotton, the most important cash crop of the State in terms of area, registered negligible increase in production - hardly 0.4 per cent a year and oilseeds, the next important group of cash crops, just about 1.1 per cent increase per year (Table 14.3). Sugarcane, on the other hand, which accounts for hardly 1.57 per cent of the total cropped area, registered 5.4 per cent annual increase in production. These cash crops are not equally important in every part of the State, but are specific to particular regions and districts. This disparity in the growth of cash crops is largely responsible for regional differences in agricultural development.

14.17. Cotton is the important cash crop in all but Bhandara and Chandrapur districts of Vidarbha, in the districts of Marathwada region, as well as in the districts of Dhule and Jalgaon of Western Maharashtra. In the four western districts of Vidarbha, it accounts for nearly 40 per cent of the total area under crops; in Marathwada and the Khandesh districts for over 10 per cent of the crop area. Production of cotton in Jalgaon, Dhule, as also in Beed, Osmanabad and Amravati districts has registered a declining trend. In the districts of Parbhani, Nanded, Akola, Yavatmal, Wardha and Nagpur the rate of increase has been above the State average. The growth rate for Vidarbha region was 1.1 per cent a year, and in Marathwada as a whole it was negligible (0.4 per cent).

14.18. Similar is the situation in regard to oilseeds. The major groundnut growing districts of the State are as follows, for which the figures in brackets indicate the annual compound rate of growth of all oilseeds: Dhule (-1.0), Jalgaon (1.6), Nashik (1.7), Satara (-1.3), Sangli (-3.6), Kolhapur (-0.3), Osmanabad (-1.1), Buldhana (6.6), Akola (0.7), Amravati (3.6), Yavatmal (2.7). The increase in production registered in some districts has been due to modest increases in per acre yield rates, particularly where irrigated summer groundnut has come up. But the decline in production in many of the districts has been mainly due to decline in area under groundnut.

14.19. Both cotton and groundnut are grown mainly under unirrigated condition in the State. In the major cotton and groundnut growing districts the crops are unirrigated. The area under hybrid of these two crops and sunflower, another new oilseed, as percentage of the normal area under these crops, was only about 15 per cent for the State as a whole (Table 14.5). It was above the State average only in the districts of Aurangabad, Nanded and Parbhani of Marathwada region and Buldhana, Yavatmal, Wardha, Nagpur and Chandrapur of Vidarbha region. But even among

Table 14.6

Districtwise Fertilizers Consumption (N+P+K)

(Tonnes)

District	1980-81	1981-82	1982-83	Total	Average	Kgs. per Ha.
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	6,245	8,011	5,025	19,281	6,427	23
3. Raigad	8,104	10,450	6,991	25,545	8,515	37
4. Ratnagiri	5,622	9,599	9,748	24,969	8,323	21
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	<u>19,971</u>	<u>28,060</u>	<u>21,764</u>	<u>69,795</u>	<u>23,265</u>	<u>26</u>
5. Nashik	27,057	31,743	23,008	81,808	27,269	28
6. Dhule	27,962	31,426	25,309	84,697	28,232	37
7. Jalgaon	47,461	53,218	47,814	148,493	49,498	51
8. Ahmednagar	28,694	34,619	26,019	89,332	29,777	22
9. Pune	17,814	35,079	41,186	94,079	31,360	27
10. Satara	20,070	21,507	13,281	54,858	18,286	25
11. Sangli	18,684	22,107	16,695	57,486	18,162	29
12. Solapur	15,893	18,878	20,290	55,061	18,354	15
13. Kolhapur	59,759	61,955	56,324	168,038	56,013	128
<u>WESTERN MAHARASHTRA</u>	<u>253,394</u>	<u>310,532</u>	<u>269,926</u>	<u>833,852</u>	<u>277,951</u>	<u>34</u>
14. Aurangabad	22,400	22,976	27,679	73,055	24,352	18
15. Parbhani	8,702	10,884	12,727	32,313	10,771	9
16. Beed	4,838	6,370	7,303	18,531	6,177	7
17. Nanded	10,047	14,791	13,930	38,768	12,923	17
18. Osmanabad	8,916	13,097	10,279	32,292	10,764	8
<u>MARATHWADA</u>	<u>54,923</u>	<u>68,118</u>	<u>71,918</u>	<u>194,959</u>	<u>64,987</u>	<u>12</u>
19. Buldhana	16,284	28,536	24,736	69,556	23,185	29
20. Akola	11,714	15,824	18,144	45,682	15,227	18
21. Amravati	16,744	18,632	18,437	53,813	17,938	23
22. Yavatmal	10,684	13,229	13,700	37,613	12,538	14
23. Wardha	8,400	9,779	18,193	36,372	12,124	26
24. Nagpur	17,270	19,469	27,287	64,026	21,342	34
25. Bhandara	7,086	9,115	9,761	25,962	8,654	16
26. Chandrapur	6,816	8,037	11,807	26,660	8,887	12
<u>VIDARBHA</u>	<u>94,998</u>	<u>122,621</u>	<u>142,065</u>	<u>359,684</u>	<u>119,895</u>	<u>21</u>
<u>MAHARASHTRA STATE</u>	<u>423,286</u>	<u>529,331</u>	<u>505,673</u>	<u>1458,290</u>	<u>486,098</u>	<u>24</u>
<u>MAHARASHTRA STATE</u>						
<u>(excl. G.B.)</u>	<u>423,286</u>	<u>529,331</u>	<u>505,673</u>	<u>1458,290</u>	<u>486,098</u>	<u>24</u>

these districts the percentage of area under hybrid was higher than 30 only in 2 districts. Thus these two major cash crops of the State have shown stagnancy or very low growth in production and productivity, and consequently it has affected the rate of agricultural development in the regions in which these crops are important, particularly Vidarbha and Marathwada.

14.20. As against these commercial crops, sugarcane, an exclusively irrigated crop, registered a 5.4 per cent annual compound growth rate in production. While in most districts growing this crop the growth rate was higher than the State average, the really significant districts are all in Western Maharashtra. Increase in area under sugarcane due to extension of surface and well irrigation has resulted in the crop becoming the most important single crop in the State, measured in terms of the gross value of total production. It has not merely given much higher income in the hands of a relatively small but growing body of cultivators in Western Maharashtra, but has helped establish many forward and backward linkages in production and services in the area. The use of fertilizer, insecticide, and mechanical equipments is naturally noticed more in irrigated areas, which are predominantly in Western Maharashtra.

14.21. Table 14.6 gives the use of fertiliser per hectare of gross sown area in each district of the State. Average use of fertiliser (N+P+K) per hectare of gross sown area (arrived at by dividing the average of the 3 years' use of fertilizers (N+P+K) during 1981-83 by the gross sown area in 1981-82) in the State as a whole (excluding Greater Bombay) was 24 kg. a hectare. But Marathwada region's average use (12 kg) was way below the State average. Vidarbha's average was 21 kg. Western Maharashtra and Konkan were above the State average. The districts of Thane, Ratnagiri, Ahmednagar, and Amravati were marginally below the State average, while Solapur, all the districts of Marathwada, Akola, Yavatmal, Bhandara and Chandrapur were way below the State average. Most Western Maharashtra districts were above the State average, the highest consumption of fertilizer being in Kolhapur, 128 kg. per hectare, followed by Jalgaon, 51 kg. per hectare. This higher rate of use of fertilizers in the Western Maharashtra districts is because of the greater extension of irrigation in this region and the growth of high fertilizer using crops like sugarcane.

14.22. The regional imbalance in the development of agriculture is therefore associated with imbalance in the extension of irrigation, and the associated inputs like fertilizer and improved seeds. It also appears that there are no significantly high yielding/hybrid seeds yet available for unirrigated cotton and groundnut which are of considerable importance to the agricultural economy of Vidarbha and Marathwada regions. While such seeds may not be made to order, it is necessary to devote attention to these crops in the research programmes of the Agricultural Universities in the State. Similarly, it would not be enough to extend irrigation to the hitherto unirrigated areas; it is necessary to design investigations to firmly establish the

Table 14.7

Ground Water Potential in 1979

District	Net Recharge in MCM	Percentage Exploitation	Number of Wells in use in 1978-79	Number of Additional Wells Feasible @ 0.015 MCM
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	1,176.056	4.90	7,591	75,884
3. Raigad	910.841	1.29	4,750	59,930
4. Ratnagiri	1,223.840	4.35	10,857	78,035
<u>KONKAN</u>				
<u>(excl. G.B.)</u>	<u>3,310.737</u>	<u>3.70</u>	<u>23,198</u>	<u>213,849</u>
5. Nashik	1,787.970	36.87	74,182	75,260
6. Dhule	1,263.250	30.48	26,745	60,780
7. Jalgaon	1,238.580	47.84	49,676	47,670
8. Ahmednagar	1,424.035	60.89	84,125	42,328
9. Pune	1,678.391	27.13	60,272	81,503
10. Satara	1,412.688	20.09	40,171	75,235
11. Sangli	785.320	70.35	43,891	19,200
12. Solapur	1,345.989	40.22	55,913	53,619
13. Kolhapur	1,208.264	22.85	15,866	62,131
<u>WESTERN MAHARASHTRA</u>	<u>12,144.487</u>	<u>37.99</u>	<u>450,841</u>	<u>517,726</u>
14. Aurangabad	1,505.160	33.07	74,329	67,946
15. Parbhani	1,451.700	17.31	26,793	80,013
16. Beed	927.648	25.00	33,152	46,372
17. Nanded	1,442.110	10.06	12,024	86,436
18. Osmanabad	1,321.710	28.04	44,642	63,421
<u>MARATHWADA</u>	<u>6,648.328</u>	<u>22.51</u>	<u>190,940</u>	<u>344,188</u>
19. Buldhana	1,051.120	21.43	25,043	55,044
20. Akola	1,173.640	11.95	12,999	68,879
21. Amravati	1,092.430	22.44	28,457	56,995
22. Yavatmal	1,574.720	6.00	14,874	98,678
23. Wardha	668.210	25.70	16,084	33,085
24. Nagpur	1,819.950	15.46	31,174	10,256
25. Bhandara	1,923.370	3.00	11,749	124,560
26. Chandrapur	3,588.400	1.17	10,949	236,423
<u>VIDARBHA</u>	<u>12,891.840</u>	<u>9.76</u>	<u>151,329</u>	<u>683,920</u>
<u>MAHARASHTRA STATE</u>	<u>34,995.392</u>	<u>21.40</u>	<u>816,308</u>	<u>1759,683</u>
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>34,995.392</u>	<u>21.40</u>	<u>816,308</u>	<u>1759,683</u>

best manner of application of water, taking the nature of soil into consideration, and the suitable crops and crop rotations. It is important for the research centres of the Agricultural Universities to start research and extension projects on water use and management. This aspect is briefly discussed later along with agricultural education.

Groundwater Development :

14.23. As already mentioned, irrigation is the basis of agricultural development in Maharashtra as it is in other parts of the country. But, Maharashtra is a largely unirrigated State. As earlier mentioned, in 1978-79, only 11.89 per cent of the gross cropped area was irrigated from all sources (Col.2 of Table 14.2). The two principal sources, namely, surface water and groundwater, contribute more or less equally to irrigation in Maharashtra. In Chapter VII, we have already examined the development of the disparities in surface water irrigation. Here we shall briefly examine the situation in groundwater irrigation.

14.24. While the development of surface water irrigation has been almost wholly the responsibility of Government and has been done at public cost, the development of groundwater resources in Maharashtra has been done by private effort and at private cost. The development is mostly by means of open wells dug and constructed at the initiative of the individual cultivator financed only partly by the financial institutions like the Land Development Bank, and Commercial Banks. The role of the Government is essentially providing information, giving subsidies including writing off a part of the loan in case of failed wells, and regulating location of wells in so far as these are sunk with borrowed funds. In view of the nature of the underground geological structure, sinking of wells in most parts of the State has been a gamble.

14.25. Till the end of the sixties no geo-hydrological information about underground water potential was available. In July 1971, the State Government set up a Groundwater Survey Agency which has been estimating the groundwater potential in the State. These estimates are made separately for a large number of small water-sheds into which every district is divided for the purpose. These estimates are continuously improved by the Agency. The latest information available for the purpose, relating to 1979, is presented in Table 14.7. Cols. 2 and 3 show the total groundwater recharge and the percentage of it already being exploited, respectively. Cols. 4 and 5 show the number of wells in use for irrigation and the additional number that can be sunk. The data show that 21.40 per cent of the estimated groundwater in the State was already being exploited in 1979. But the rate of exploitation varied widely between regions and districts. Konkan region had the lowest exploitation rate, 3.70 per cent, and all the districts in Konkan had less than 5 per cent rate of exploitation. Vidarbha region had also a very low rate of exploitation, 9.76 per cent; three districts in the region, Chandrapur, Bhandara and Yavatmal with the highest

Table 14.8

Percentage of Total Irrigation Wells in Use

District	1960-61			1978-79		
	Irriga- tion Wells	Irriga- tion Wells in Use	Col.(3) as per- centage of Col. (2)	Irriga- tion Wells	Irriga- tion Wells in Use	Col.(6) as per- centage of Col. (5)
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	6,557	6,245	95.24	8,074	7,591	94.02
3. Raigad	4,180	3,748	89.67	5,252	4,750	90.44
4. Ratnagiri	15,304	13,175	86.09	14,177	10,857	76.58
<u>KONKAN</u>						
<u>(excl. G.B.)</u>	<u>26,041</u>	<u>23,168</u>	<u>88.97</u>	<u>27,503</u>	<u>23,198</u>	<u>84.35</u>
5. Nashik	57,909	54,883	94.77	77,876	74,182	95.26
6. Dhule	14,002	12,487	89.18	30,957	26,745	86.39
7. Jalgaon	50,426	38,921	77.18	57,668	49,676	86.14
8. Ahmednagar	70,569	66,494	94.23	93,419	84,125	90.05
9. Pune	46,027	40,587	88.18	64,952	60,272	92.79
10. Satara	33,169	28,492	85.90	43,876	40,171	91.56
11. Sangli	36,742	32,966	89.72	47,358	43,891	92.68
12. Solapur	50,052	47,033	93.97	59,772	55,913	93.54
13. Kolhapur	12,731	11,325	88.96	18,041	15,866	87.94
<u>WESTERN MAHARASHTRA</u>	<u>371,627</u>	<u>333,188</u>	<u>89.66</u>	<u>493,919</u>	<u>450,841</u>	<u>91.28</u>
14. Aurangabad	41,128	37,966	92.31	79,449	74,329	93.56
15. Parbhani	16,560	14,752	89.08	29,568	26,793	90.61
16. Beed	32,612	30,581	93.77	35,135	33,152	94.36
17. Nanded	7,390	6,747	91.30	12,276	12,024	97.95
18. Osmanabad	19,942	16,917	84.83	48,838	44,642	91.41
<u>MARATHWADA</u>	<u>117,632</u>	<u>106,963</u>	<u>90.93</u>	<u>205,266</u>	<u>190,940</u>	<u>93.02</u>
19. Buldhana	21,540	13,498	62.66	34,642	25,043	72.29
20. Akola	9,487	3,937	41.50	20,918	12,999	62.14
21. Amravati	19,024	13,846	72.78	34,598	28,457	82.85
22. Yavatmal	8,794	5,391	61.30	19,570	14,874	76.00
23. Wardha	17,245	6,932	40.20	28,109	16,084	57.22
24. Nagpur	32,667	20,073	61.45	57,861	31,174	53.88
25. Bhandara	12,083	8,344	69.06	16,033	11,749	73.28
26. Chandrapur	9,672	6,691	69.18	15,197	10,949	72.03
<u>VIDARBHA</u>	<u>130,512</u>	<u>78,712</u>	<u>60.31</u>	<u>226,928</u>	<u>151,329</u>	<u>66.69</u>
<u>MAHARASHTRA STATE</u>	<u>645,812</u>	<u>542,031</u>	<u>83.93</u>	<u>953,616</u>	<u>816,308</u>	<u>85.60</u>
<u>(excl. G.B.)</u>	<u>645,812</u>	<u>542,031</u>	<u>83.93</u>	<u>953,616</u>	<u>816,308</u>	<u>85.60</u>

recharge of groundwater, had very poor exploitation, 1.17, 3.00 and 6.00 per cent, respectively. Three other districts in the region, Buldhana, Amravati and Wardha had exploitation rates equal to or a little higher than the State average. Marathwada region's rate of exploitation was equal to the State average, but two of the five districts, Nanded and Parbhani, had much lower rates of exploitation. Western Maharashtra had the highest rate of exploitation 37.99 per cent, which is almost twice the State average. The highest rates of exploitation were in Sangli 70.35 per cent, Ahmednagar 60.89 per cent, Jalgaon 47.84 per cent and Solapur 40.22 per cent. Only Satara's rate of exploitation was just below the State average.

14.26. Initiative in regard to sinking wells for irrigation has to be taken by the cultivators. Nevertheless, it is necessary to devote special attention in this matter to the districts of Konkan, to Nanded and Parbhani in Marathwada, and to Akola, Yavatmal, Nagpur, Bhandara and Chandrapur in Vidarbha region. The agricultural extension agency as well as the financing agencies like the L.D.B. s and commercial banks that provide term-loans for the purpose should give special attention to these districts to see that farmers come forward to sink wells for irrigation.

14.27. One of the features that deserves special attention in this respect, is the inadequate use of the existing wells in certain regions of the State. Table 14.8 gives the percentage of irrigation wells in use in 1960-61 and 1978-79, the latest year for which data were available. The table shows that for the State as a whole 83.93 per cent of the irrigation wells were in use in 1960-61, and this improved only slightly to 85.60 per cent by 1978-79. But the significant point to note is the much lower use of available wells for irrigation in the Vidarbha districts where only about two-thirds of the wells were being used in 1978-79. In the light of the poor overall irrigation facility in this region, the lower rate of use of existing wells calls for special investigation and remedial action.

14.28. The problem is further underlined by the fact that in recent years a very large proportion of the failed wells deserving subsidy from the State Government, was in the Vidarbha districts. Table 14.9 gives the number of wells undertaken during the 3 years 1980-83, which failed and had therefore been subsidised by the State Government or were under consideration for the purpose. This of course should be compared with the total number of wells that were sunk during these 3 years, in order to know about the extent of failure of wells. But that information was not available. Nevertheless, the fact that more than half the wells that failed during these three years were in the Vidarbha districts and more than one-fourth in the Marathwada districts is in itself a matter that deserves careful investigation in the light of the greater need for and potential of development of irrigation in the region.

Table 14.9

Failed Well Subsidy Scheme : Number of Cases Settled during 1980-83 and
Number Pending on 1-4-1983

District	Number of Cases Settled for 1980-83	Number of Cases Pending on 1-4-1983	Total Cols. (2)+(3)	Percentage to State Total
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	65	2	67	0.78
3. Raigad	61	6	67	0.78
4. Ratnagiri	3	2	5	0.06
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>129</u>	<u>10</u>	<u>139</u>	<u>1.62</u>
5. Nashik	136	8	144	1.68
6. Dhule	120	3	123	1.44
7. Jalgaon	135	49	184	2.15
8. Ahmednagar	239	145	384	4.49
9. Pune	109	11	120	1.40
10. Satara	118	6	124	1.45
11. Sangli	62	9	71	0.83
12. Solapur	188	123	311	3.64
13. Kolhapur	231	61	292	3.41
<u>WESTERN MAHARASHTRA</u>	<u>1,338</u>	<u>415</u>	<u>1,753</u>	<u>20.49</u>
14. Aurangabad	198	1,160	1,358	15.88
15. Parbhani	171	46	217	2.54
16. Beed	125	49	174	2.03
17. Nanded	35	12	47	0.55
18. Osmanabad	170	303	473	5.53
<u>MARATHWADA</u>	<u>699</u>	<u>1,570</u>	<u>2,269</u>	<u>26.53</u>
19. Buldhana	67	452	519	6.07
20. Akola	356	458	814	9.52
21. Amravati	117	170	287	3.36
22. Yavatmal	373	764	1,137	13.29
23. Wardha	163	260	423	4.95
24. Nagpur	196	132	328	3.83
25. Bhandara	157	18	175	2.05
26. Chandrapur	177	533	710	8.30
<u>VIDARBHA</u>	<u>1,606</u>	<u>2,787</u>	<u>4,393</u>	<u>51.36</u>
<u>MAHARASHTRA STATE</u>	<u>3,772</u>	<u>4,782</u>	<u>8,554</u>	<u>100.00</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>3,772</u>	<u>4,782</u>	<u>8,554</u>	<u>100.00</u>

Land Development & Soil Conservation:

14.29. Besides construction of large, medium and small irrigation projects, the State Government has been undertaking land development work in areas covered by the existing and new projects. The land development work includes levelling the fields under command, as well as constructing water courses from the outlets on the minor canals or distributories to the head of the fields. A part of this work on select large scale surface irrigation projects is undertaken by the Command Area Development Authority created for the purpose. The land development work in the remaining command areas is undertaken by the Department of Agriculture.

14.30. Table 14.10 gives the cultivable command area (C.C.A) under each surface irrigation project in the State taken up for land development, etc., work by CADA aggregated districtwise, the area out of this on which such work was about to be completed by the 31st of March 1984, and the backlog of work in different districts. For a few of the projects information about the C.C.A. was available for the project as a whole, without a districtwise break-up. In such cases the C.C.A. was distributed among the districts in the same proportion in which the total irrigable area under the project was distributed among the districts. CADA work is divided into two types: Part I refers to work of land development to be carried out on the farmer's field, and Part II refers to community works, that is, works like construction of water courses, distribution boxes, etc. The area covered by these works would be the total C.C.A. It appears that Part I works were to be completed in 32.12 per cent of the C.C.A. and Part II works were to be completed in 28.83 per cent of the C.C.A. under CADA by end of March 1984. Cols. 5 and 6 of Table give the percentage of work completed districtwise by March 1984. In Table 14.10A the backlog of the work to be done in districts where the achievement was below State average has been worked out. We were informed that on an average it will cost Rs.2,000 per hectare to complete each type of work. Therefore, Col.5 in Table 14.10A gives the total estimated expenditure to bring the below average districts to the State average in both Part I and Part II types of work.

14.31. The Department of Agriculture undertakes similar land development work in the command areas not covered by CADA. Table 14.11 gives districtwise, the total culturable command area (C.C.A.) available for land development work and the area in which such work had been completed upto March 1983. Col.4 of the table shows that in the State as a whole, of the C.C.A. available for such work by the Department, the work had been completed on 75.74 per cent of the area. However, in the districts of Thane in Konkan, Ahmednagar, Pune and Solapur in Western Maharashtra, Parbhani and Beed in Marathwada, Buldhana, Yavatmal, Nagpur, Bhandara and Chandrapur in Vidarbha, the percentage of available C.C.A. on which work of land development had been completed by March 1983 was less than the State average. In Col.6 of the Table is given the additional areas in these districts on which

Table 14.10

Estimated Backlog in Land Development Work in Projects
under CADA

District	Total Culturable Command Area	Land Development Work		Percentage of Col.(3) to Col.(2) (2)	Percen- tage of Col.(4) to Col. (2)
		Expected to be Comple- ted by March 1984			
		Part I Works	Part II Works		
	('000 hectares)				
1	2	3	4	5	6
1.Greater Bombay	-	-	-	-	-
2.Thane	-	-	-	-	-
3.Raigad	-	-	-	-	-
4.Ratnagiri	-	-	-	-	-
<u>KONKAN (Excl G.B.)</u>	-	-	-	-	-
5.Nashik	3.70	3.50	3.50	94.59	94.59
6.Dhule	1.10	-	-	0.00	0.00
7.Jalgaon	163.00	84.80	79.20	52.02	48.59
8.Ahmednagar	226.70	127.30	106.90	56.15	47.15
9.Pune	96.60	10.90	8.60	11.28	8.90
10.Satara	81.80	32.50	20.80	39.73	25.43
11.Sangli	87.80	0.20	0.90	0.23	1.03
12.Solapur	256.70	27.30	30.20	10.63	11.76
13.Kolhapur	46.20	-	-	0.00	0.00
<u>WESTERN MAHARASTRA</u>	<u>963.60</u>	<u>286.50</u>	<u>250.10</u>	<u>29.73</u>	<u>25.95</u>
14.Aurangabad	-	-	-	-	-
15.Parbhani	75.90	0.60	0.60	0.79	0.79
16.Beed	-	-	-	-	-
17.Nanded	145.30	1.60	0.40	1.10	0.28
18.Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>221.20</u>	<u>2.20</u>	<u>1.00</u>	<u>0.99</u>	<u>0.05</u>
19.Buldhana	-	-	-	-	-
20.Akola	-	-	-	-	-
21.Amravati	-	-	-	-	-
22.Yavatmal	16.40	1.60	-	9.76	-
23.Wardha	-	-	-	-	-
24.Nagpur	129.30	17.00	14.00	13.15	1.24
25.Bhandara	-	-	-	-	-
26.Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>145.70</u>	<u>18.60</u>	<u>14.00</u>	<u>12.77</u>	<u>9.61</u>
Jayakwadi Project	354.70	147.00	128.00	41.44	36.09
Itiadh Project	26.40	18.00	19.00	68.18	68.18
<u>MAHARASHTRA STATE (Excl. G.B.)</u>	<u>1739.70</u>	<u>558.80</u>	<u>501.60</u>	<u>32.12</u>	<u>28.83</u>

Table 14.10A

Estimated Cost of Backlog in Land Development
Work in Projects under CADA

District	Backlog in Land Development Work			Cost of Col. (4)@ Rs.2,000 per ha. (Rs.Lakh)
	Part I Works	Part II Works	Total	
	('000 hectares)			
	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	-	-	-	-
3. Raigad	-	-	-	-
4. Ratnagiri	-	-	-	-
<u>KONKAN</u>				
(excl.G.B.)	-	-	-	-
5. Nashik	-	-	-	-
6. Dhule	0.35	1.06	1.41	28.20
7. Jalgaon	-	-	-	-
8. Ahmednagar	-	-	-	-
9. Pune	20.13	19.25	39.38	787.60
10. Satara	-	2.78	2.78	55.60
11. Sangli	28.00	24.41	52.41	1,048.20
12. Solapur	55.15	43.81	98.96	1,979.20
13. Kolhapur	14.84	13.32	28.16	563.20
<u>WESTERN</u>				
<u>MAHARASTRA</u>	<u>118.47</u>	<u>104.63</u>	<u>223.10</u>	<u>4,462.00</u>
14. Aurangabad	-	-	-	-
15. Purbhani	23.78	21.28	45.06	901.20
16. Beed	-	-	-	-
17. Nanded	45.07	41.49	86.56	1,731.20
18. Osmanabad	-	-	-	-
<u>MARATHWADA</u>	<u>68.85</u>	<u>62.77</u>	<u>131.62</u>	<u>2,632.40</u>
19. Buldhana	-	-	-	-
20. Akola	-	-	-	-
21. Amravati	-	-	-	-
22. Yavatmal	3.67	5.27	8.94	178.80
23. Wardha	-	-	-	-
24. Nagpur	24.53	23.28	47.81	956.20
25. Bhandara	-	-	-	-
26. Chandrapur	-	-	-	-
<u>VIDARBHA</u>	<u>28.20</u>	<u>28.55</u>	<u>56.75</u>	<u>1,135.00</u>
<u>MAHARASTRA STATE</u>	<u>215.52</u>	<u>195.95</u>	<u>411.47</u>	<u>8,229.40</u>
<u>MAHARASTRA STATE</u>				
(excl.G.B.)	<u>215.52</u>	<u>195.95</u>	<u>411.47</u>	<u>8,229.40</u>

Table 14.11

Land Development under Major, Medium & Minor
Irrigation Projects in Non-CADA Sector upto March 1983
(Area in Hectares)

District	C.C.A.	C.C.A. Available for work	Land de- velopment work do- ne upto March 1983	Col.(4) as per- centage to Col. (3)	Back log	Cost*
1	2	3	4	5	6	7 (Rs.Lakh)
1. Greater Bombay	-	-	-	-	-	-
2. Thane	52,391	1,151	189	16.42	683	2.78
3. Raigad	9,725	9,725	8,628	88.72	-	-
4. Ratnagiri	-	-	-	-	-	-
<u>KONKAN</u>						
(excl. G.B)	62,116	10,876	8,817	81.07	683	2.78
5. Nashik	107,755	105,350	81,285	77.16	-	-
6. Dhule	32,440	27,098	27,185	100.32	-	-
7. Jalgaon	24,765	23,396	20,861	89.16	-	-
8. Ahmednagar	22,071	21,910	13,876	63.13	2,763	11.65
9. Pune	34,310	32,274	20,186	62.55	4,257	12.40
10. Satara	-	-	-	-	-	-
11. Sangli	-	-	-	-	-	-
12. Solapur	20,498	18,145	10,592	58.37	3,152	7.94
13. Kolhapur	-	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>241,839</u>	<u>228,173</u>	<u>173,985</u>	<u>76.25</u>	<u>10,172</u>	<u>31.99</u>
14. Aurangabad	35,224	31,004	24,836	80.11	-	-
15. Parbhani	15,930	8,375	5,156	61.56	1,187	3.77
16. Beed	41,087	31,118	23,433	75.30	137	0.48
17. Nanded	38,362	35,376	33,126	93.64	-	-
18. Osmanabad	36,761	32,035	24,768	77.32	-	-
<u>MARATHWADA</u>	<u>167,364</u>	<u>137,908</u>	<u>111,319</u>	<u>80.72</u>	<u>1,324</u>	<u>4.25</u>
19. Buldhana	32,469	27,469	18,520	67.42	2,285	6.32
20. Akola	29,557	29,557	25,891	87.60	-	-
21. Amravati	2,541	2,541	2,537	99.84	-	-
22. Yavatmal	63,727	42,875	27,405	63.92	5,068	18.56
23. Wardha	35,360	24,550	19,756	80.47	-	-
24. Nagpur	21,925	15,584	10,541	67.64	1,262	4.36
25. Bhandara	13,685	11,156	7,352	65.90	1,098	0.35
26. Chandrapur	16,472	12,810	5,502	42.95	4,200	21.53
<u>VIDARBHA</u>	<u>215,736</u>	<u>166,542</u>	<u>117,504</u>	<u>70.56</u>	<u>13,913</u>	<u>51.12</u>
<u>MAHARASHTRA STATE</u>	<u>687,055</u>	<u>543,499</u>	<u>411,625</u>	<u>75.74</u>	<u>26,092</u>	<u>90.14</u>
<u>(excl. G.B.)</u>	<u>687,055</u>	<u>543,499</u>	<u>411,625</u>	<u>75.74</u>	<u>26,092</u>	<u>90.14</u>

* Cost calculated on each dist. average cost.
shown in Table 14.12

Table 14.12

Total Expenditure Incurred for Land Development Work under
Non-CADA Irrigation Projects from 1979-80 to 1982-83

District	Expenditure on works EGS+non-EGS (Rs. Lakh)	Land Development work done upto March 83 (ha)	Cost (Rs. per ha.)
1	2	3	4
1. Greater Bombay	-	-	-
2. Thane	0.77	189	407.41
3. Raigad	-	8,628	-
4. Ratnagiri	-	-	-
<u>KONKAN</u>			
<u>(excl. G.B.)</u>	<u>0.77</u>	<u>8,817</u>	<u>-</u>
5. Nashik	322.69	81,285	396.99
6. Dhule	66.22	27,185	243.59
7. Jalgaon	74.62	20,861	357.70
8. Ahmednagar	58.52	13,876	421.81
9. Pune	58.79	20,186	291.24
10. Satara	0.75	-	-
11. Sangli	0.15	-	-
12. Solapur	26.67	10,592	251.79
13. Kolhapur	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>608.42</u>	<u>173,985</u>	<u>-</u>
14. Aurangabad	98.58	24,836	396.92
15. Parbhani	16.39	5,156	317.88
16. Beed	82.05	23,433	350.15
17. Nanded	45.91	33,126	138.59
18. Osmanabad	161.54	24,768	652.21
<u>MARATHWADA</u>	<u>404.47</u>	<u>111,319</u>	<u>363.34</u>
19. Buldhana	51.21	18,520	276.51
20. Akola	48.64	25,891	187.86
21. Amravati	3.93	2,537	154.91
22. Yavatmal	100.35	27,405	366.17
23. Wardha	6.36	19,756	32.19
24. Nagpur	36.45	10,541	345.79
25. Bhandara	2.36	7,352	32.10
26. Chandrapur	28.20	5,502	512.54
<u>VIDARBHA</u>	<u>277.50</u>	<u>117,504</u>	<u>236.16</u>
<u>MAHARASHTRA STATE</u>	<u>1,291.16</u>	<u>411,625</u>	<u>313.67</u>
<u>MAHARASHTRA STATE</u>			
<u>(excl. G.B.)</u>	<u>1,291.16</u>	<u>411,625</u>	<u>313.67</u>

Table 14.13

Contour Bunding Work as on 31st March 1983

District	Poten- tial (Lakh hectares)	Work Done	Percentage of col.(3) to col.(2)	Backlog of Cont our Bun- ding (Lakh ha)	Cost @ Rs.450 per hectare (Rs.Lakh)
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN</u>					
(excl. G.B.)	-	-	-	-	-
5. Nashik	5.52	4.86	88.04	-	-
6. Dhule	5.06	5.00	98.81	-	-
7. Jalgaon	7.67	4.94	64.41	0.38	171.00
8. Ahmednagar	7.26	6.11	84.16	-	-
9. Pune	5.07	4.43	87.38	-	-
10. Satara	4.89	1.95	39.88	1.44	648.00
11. Sangli	4.05	3.47	85.68	-	-
12. Solapur	9.95	7.91	79.50	-	-
13. Kolhapur	0.46	0.36	78.26	-	-
<u>WESTERN MAHARASHTRA</u>	<u>49.93</u>	<u>39.03</u>	<u>78.17</u>	<u>1.82</u>	<u>819.00</u>
14. Aurangabad	7.61	7.22	94.88	-	-
15. Parbhani	8.58	4.36	50.82	1.59	715.50
16. Beed	7.91	5.41	68.39	0.08	36.00
17. Nanded	4.78	3.23	67.57	0.09	40.50
18. Osmanabad	12.19	8.69	71.29	-	-
<u>MARATHWADA</u>	<u>41.07</u>	<u>28.91</u>	<u>70.39</u>	<u>1.76</u>	<u>792.00</u>
19. Buldhana	4.46	4.43	99.33	-	-
20. Akola	8.20	3.74	45.61	1.95	887.50
21. Amravati	4.83	2.70	55.90	0.65	292.50
22. Yavatmal	7.36	4.31	58.56	0.80	360.00
23. Wardha	3.50	1.62	46.29	0.81	364.50
24. Nagpur	2.78	1.89	67.99	0.04	18.00
25. Bhandara	-	-	-	-	-
26. Chandrapur	3.58	0.60	16.76	1.88	846.00
<u>VIDARBHA</u>	<u>34.71</u>	<u>19.29</u>	<u>55.57</u>	<u>6.13</u>	<u>2,768.50</u>
<u>MAHARASHTRA STATE</u>	<u>125.71</u>	<u>87.23</u>	<u>69.39</u>	<u>9.71</u>	<u>4,379.50</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>125.71</u>	<u>87.23</u>	<u>69.39</u>	<u>9.71</u>	<u>4,379.50</u>

Table 14.14

Terracing Work as on 31st March 1982

District	Poten-	Work	Percentage	Backlog of Cost @	
	tial	Done	of Col.(6) to Col.(5)	Terracing	Rs.3,750 per ha.
	(Lakh hectares)			(Lakh ha) (Rs.Lakh)	
1	2	3	4	5	6
1.Greater Bombay	-	-	-	-	-
2.Thane	0.31	0.16	51.61	-	-
3.Raigad	0.19	0.11	57.89	-	-
4.Ratnagiri	1.98	0.06	3.03	3.03	1,350.00
<u>KONKAN</u>					
(excl. G.B.)	<u>2.48</u>	<u>0.33</u>	<u>13.31</u>	<u>0.36</u>	<u>1,350.00</u>
5.Nashik	0.48	0.17	35.42	-	-
6.Dhule	-	-	-	-	-
7.Jalgaon	-	-	-	-	-
8.Ahmednagar	0.01	0.01	100.00	-	-
9.Pune	0.33	0.14	42.42	-	-
10.Satara	0.71	0.12	16.90	0.03	112.50
11.Sangli	0.01	0.01	100.00	-	-
12.Solapur	-	-	-	-	-
13.Kolhapur	0.75	0.22	29.33	-	-
<u>WESTERN MAHARASHTRA</u>	<u>2.29</u>	<u>0.67</u>	<u>29.26</u>	<u>0.03</u>	<u>112.50</u>
14.Aurangabad	-	-	-	-	-
15.Parbhani	-	-	-	-	-
16.Beed	-	-	-	-	-
17.Nanded	-	-	-	-	-
18.Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
19.Buldhana	-	-	-	-	-
20.Akola	-	-	-	-	-
21.Amravati	-	-	-	-	-
22.Yavatmal	-	-	-	-	-
23.Wardha	-	-	-	-	-
24.Nagpur	0.14	0.13	92.86	-	-
25.Bhandara	1.44	0.46	31.94	-	-
26.Chandrapur	2.32	0.26	11.21	0.24	900.00
<u>VIDARBHA</u>	<u>3.90</u>	<u>0.85</u>	<u>21.79</u>	<u>0.24</u>	<u>900.00</u>
<u>MAHARASHTRA STATE</u>	<u>8.67</u>	<u>1.85</u>	<u>21.34</u>	<u>0.63</u>	<u>2,362.50</u>
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	<u>8.67</u>	<u>1.85</u>	<u>21.34</u>	<u>0.63</u>	<u>2,362.50</u>

Table 14.15

Nala Bunding Work as on 31st March 1983

District	Poten- tial (Nos.)	Work Done (Nos.)	Percentage of Col.(3) to Col.(2)	Backlog in LDHD (Numbers)	Cost @ Rs.0.50 lakh per Nala (Rs.Lakh)
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	195	62	31.79	95	47.50
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	2	-	-	-
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>197</u>	<u>64</u>	<u>32.49</u>	<u>95</u>	<u>47.50</u>
5. Nashik	5,044	4,842	95.96	-	-
6. Dhule	2,777	2,777	100.00	-	-
7. Jalgaon	2,558	2,558	100.00	-	-
8. Ahmednagar	5,813	5,599	96.32	-	-
9. Pune	3,961	3,961	100.00	-	-
10. Satara	2,616	2,559	97.82	-	-
11. Sangli	2,329	2,044	87.76	-	-
12. Solapur	5,432	5,105	93.98	-	-
13. Kolhapur	202	43	21.29	120	60.00
<u>WESTERN MAHARASHTRA</u>	<u>30,732</u>	<u>29,488</u>	<u>95.95</u>	<u>120</u>	<u>60.00</u>
14. Aurangabad	2,324	1,482	63.77	390	195.00
15. Parbhani	560	93	16.61	358	179.00
16. Beed	3,269	2,229	68.19	405	202.50
17. Nanded	575	65	11.30	398	199.00
18. Osmanabad	1,748	556	31.81	852	426.00
<u>MARATHWADA</u>	<u>8,476</u>	<u>4,425</u>	<u>52.21</u>	<u>2,403</u>	<u>1,201.50</u>
19. Buldhana	1,292	595	46.05	446	223.00
20. Akola	800	410	51.25	235	117.50
21. Amravati	700	311	44.43	253	125.50
22. Yavatmal	1,000	439	43.90	367	183.50
23. Wardha	700	82	11.71	482	241.00
24. Nagpur	923	280	30.34	464	232.00
25. Bhandara	104	98	94.23	-	-
26. Chandrapur	17	17	100.00	-	-
<u>VIDARBHA</u>	<u>5,536</u>	<u>2,232</u>	<u>40.32</u>	<u>2,247</u>	<u>1,122.50</u>
<u>MAHARASHTRA STATE</u>	<u>44,941</u>	<u>36,209</u>	<u>80.57</u>	<u>4,865</u>	<u>2,431.50</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4,865</u>	<u>2,431.50</u>

Table 14.16
Land Development cum Horticultural Development as on
31st March 1983

District	Poten- tial (ha)	Work Done (ha)	Percentage of Col.(3) to Col.(2)	Backlog in LDHD (ha)	Cost @ Rs.3,450 per ha. (Rs.Lakh)
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	55,000	9,317	16.94	533	18.39
3. Raigad	58,000	9,115	15.72	1,273	43.92
4. Ratnagiri	360,939	71,302	19.75	-	-
KONKAN					
(excl. G.B.)	<u>473,939</u>	<u>89,734</u>	<u>18.93</u>	<u>1,806</u>	<u>62.31</u>
5. Nashik	523	141	26.96	-	-
6. Dhule	319	63	19.75	-	-
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	100	100	100.00	-	-
9. Pune	556	549	98.74	-	-
10. Satara	200	139	69.50	-	-
11. Sangli	200	102	51.00	-	-
12. Solapur	-	-	-	-	-
13. Kolhapur	55,979	3,667	6.55	6,359	219.39
WESTERN MAHARASHTRA	<u>57,877</u>	<u>4,761</u>	<u>8.23</u>	<u>6,359</u>	<u>219.39</u>
14. Aurangabad	225	67	29.78	-	-
15. Parbhani	12	12	100.00	-	-
16. Beed	200	-	-	36	1.24
17. Nanded	-	-	-	-	-
18. Osmanabad	-	-	-	-	-
MARATHWADA	<u>457</u>	<u>79</u>	<u>17.29</u>	<u>36</u>	<u>1.24</u>
19. Buldhana	724	724	100.00	-	-
20. Akola	28	28	100.00	-	-
21. Amravati	200	2	1.00	34	1.17
22. Yavatmal	200	94	47.00	-	-
23. Wardha	144	144	100.00	-	-
24. Nagpur	-	-	-	-	-
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
VIDARBHA	<u>1,476</u>	<u>992</u>	<u>67.21</u>	<u>34</u>	<u>1.17</u>
MAHARASHTRA STATE	<u>533,749</u>	<u>95,566</u>	<u>17.91</u>	<u>8,235</u>	<u>284.11</u>
MAHARASHTRA STATE					
(excl. G.B.)	<u>533,749</u>	<u>95,566</u>	<u>17.91</u>	<u>8,235</u>	<u>284.11</u>

work had to be carried out to bring the districts to the level of the State average. The cost of developing these lands in the districts below the State average have been calculated in Col.7 of the Table on the basis of the average per acre costs, districtwise, on EGS and non-EGS works for the purpose during the years 1979-80 to 1982-83 (given in Table 14.12). The total additional expenses to bring the districts with backlog to the level of the State average is estimated to be Rs.90.14 lakh.

14.32. Since the larger part of the farm land in the State is unirrigated, dry land farming techniques are being developed and implemented in the State. These are mainly soil conservation measures. They include the following: contour bunding, terracing, nala bunding, field drains, land development-cum-horticultural development and land shaping and grading, on-farm dry land development and broad beds and furrows. Tables 14.13 (Contour Bunding), 14.14 (Terracing), 14.15 (Nala Bunding), and 14.16 (Land Development-cum-Horticultural Development) give the estimated potential of respective work in each district and the area on which the particular work has been done by the Agricultural Department upto 31st March 1983. The fourth column under each head presents the work-done as percentage of the ultimate potential. In Col.5 is estimated the backlog of work in the districts which are below the State average. In Col.6 is presented the estimated cost of completing this backlog. The cost estimates in every case are based on the latest per unit costs estimated by the Directorate of Agriculture. Work on three of the eight different types of soil conservation work, namely, land shaping and grading, on-farm dry land development, and broad beds and furrows had hardly begun in the State by 31st March 1983. In matter of these works, therefore, it is advisable to start work in different districts in proportion to the potential for such works in the districts. In case of field drains, while the physical backlog can be estimated, the estimate of per hectare costs for this type of work was not readily available, and hence the backlog in money terms could not be estimated. The current backlog in the other four types of soil conservation work amount to Rs.94.57 crore.

14.33. Besides land development and soil conservation work on irrigated and dry land, the Department of Agriculture undertakes specific crop development schemes, as well as specific schemes relating to tribal areas, drought-prone areas and Western-Ghat development. By their nature these are region specific. Moreover, it is not possible to estimate backlog in this matter without a physical estimation of potential, which is not always possible, and for which, information, in any case, is not available to the Committee. Therefore, these are not being taken up here. However, it is necessary, wherever possible, to estimate district/talukawise backlog on the basis of physical achievements and allocate funds for expenditure accordingly.

Table 14.17

Teaching and Training Facilities in Agriculture

District	Gram Sevak Training (Capacity : Number of Seats)	Agricultu- ral Schools	Agricultural Colleges	University/ Post Graduate
1	2	3	4	5
1. Greater Bombay	-	-	75+	25+
2. Thane	60	50	-	-
3. Raigad	-	30	-	-
4. Ratnagiri	-	50	100*	54
<u>KONKAN</u>				
<u>(excl. G.B.)</u>	<u>60</u>	<u>130</u>	<u>100</u>	<u>54</u>
5. Nashik	-	60	-	-
6. Dhule	-	50	100	-
7. Jalgaon	-	60	-	-
8. Ahmednagar	-	50	20++	201
9. Pune	356	50	190	-
10. Satara	-	50	-	-
11. Sangli	-	50	-	-
12. Solapur	-	50	-	-
13. Kolhapur	94	50	190	-
<u>WESTERN</u>				
<u>MAHARASHTRA</u>	<u>450</u>	<u>470</u>	<u>500</u>	<u>201</u>
14. Aurangabad	350	60	-	-
15. Parbhani	350	60	284	182
16. Beed	-	60	-	-
17. Nanded	-	60	-	-
18. Osmanabad	-	60	-	-
<u>MARATHWADA</u>	<u>700</u>	<u>300</u>	<u>284</u>	<u>182</u>
19. Buldhana	n.a.	60	-	-
20. Akola	-	60	112	114
21. Amravati	-	-	128	-
22. Yavatmal	-	60	-	-
23. Wardha	-	60	-	-
24. Nagpur	-	60	128+100 +	54+12 +
25. Bhandara	-	60	-	-
26. Chandrapur	n.a.	60	64	-
<u>VIDARBHA</u>	<u>-</u>	<u>420</u>	<u>532</u>	<u>180</u>
<u>MAHARASHTRA STATE</u>	<u>1,210</u>	<u>1,320</u>	<u>1,416</u>	<u>642</u>
<u>MAHARASHTRA STATE</u>				
<u>(excl. G.B.)</u>	<u>1,210</u>	<u>1,320</u>	<u>1,416</u>	<u>617</u>

+ Veterinary
* 20 for fisheries
++ Engineering
n.a. Not Available

Table 14.17A

<u>Research Facilities in Agriculture</u>		
District	Number of Reserch Stations	Subjects of Research undertaken
1	2	3
1.Gr.Bombay	-	
2.Thane	2	Paddy, Grass, Vegetables
3.Raigad	4	Rice, Ragi, Arecanut, Khar lands
4.Ratnagiri	7	Rice, Coconut, Nagli, Mango, Cashew Nut; Soil Conservation; Besides University Centre
5.Nashik	5	Wheat, Paddy and Niger, Grapes, Onion, Betel; Cattle
6.Dhule	1	Jowar and Groundnut
7.Jalgaon	2	Oilseeds, Jowar and Banana
8.Ahmednagar	3	Cotton, Citrus; Dry Farming; Besides University Research Station
9.Pune	3	Paddy, Fruit and Vegetables
10.Satara	3	Sugar, Irrigated Cotton, Wheat, Jowar, Groundnut.
11.Sangli	1	Sunflower, Jowar, Turmeric
12.Solapur	3	Jowar and Pulses; Soils; Dry Farming.
13.Kolhapur	3	Sugarcane, Jowar, Groundnut, Paddy.
14.Aurangabad	3	Fruits, Flowers, Pulses, Bajra
15.Parbhani	8	Cotton, Jowar, Paddy, Sugarcane; Sericulture; Dryland Farming; Nursery; Meteorology; (All but one at University Centre)
16.Beed	1	Oilseeds
17.Nanded	1	Cotton
18.Osmanabad	1	Cotton, Oilseeds, Paddy
19.Buldhana	1	Cotton, Safflower, Pulses
20.Akola	2	Wheat, Cotton; Livestock; University Research Station for Cotton, Jowar, Pulses, Oilseeds, Horticulture
21.Amravati	2	Jowar, Bajra, Oilseeds, Cotton, Pulses
22.Yavatmal	1	Jowar, Pulses
23.Wardha	1	Cotton, Pulses
24.Nagpur	3	Rabi pulses, Paddy, Citrus, Betel Vine
25.Bhandara	2	Paddy, Sugarcane
26.Chandrapur	2	Paddy, Rabi jowar, Oilseeds

Agricultural Extension & Education:

14.34. Finally, we wish to review the regional distribution of extension of agricultural (including animal husbandry) education and research in the State. Agricultural education is carried out in exclusive agricultural schools, agriculture colleges and in postgraduate departments of the four agricultural universities in the State, located in the four regions of Konkan, Western Maharashtra, Marathwada and Vidarbha. (Certain Secondary/Higher Secondary Schools also teach agriculture as a subject. But these are not being considered here). Table 14.17 presents information about capacity of the agricultural schools, colleges and universities, districtwise. Research in agriculture is carried out by the four Universities in the research stations at the place of the Universities, as well as in a chain of research stations located in different districts. Most of these had been established by the State Government, and were transferred to the Universities after they came into being. Table 14.17A also gives the number of such research stations in each district and their specifications.

14.35. Every district, except the newly created ones and the district of Amravati, has one agricultural school with a normal intake capacity of 50 to 60 students. These students, after they pass out, are mostly absorbed in different activities of the agricultural department and related public and private agencies. The present intake capacity in different districts appears satisfactory. However, the newly created districts as well as the district of Amravati should have a school each, with intake capacity of 50 or 60 students.

14.36. Intake capacity of the agricultural colleges for undergraduate degree in agriculture varies between regions. The Konkan districts have 80 seats (besides 20 for fisheries), while the three colleges in Western Maharashtra (in Dhule, Pune and Kolhapur) have a total intake capacity of 480 plus 20 for agricultural engineering, the one College in Parbhani for Marathwada a capacity of 284, and the four colleges in Vidarbha (at Akola, Amravati, Nagpur and Chandrapur) a total intake capacity of 432. If we compare the intake capacity of agricultural colleges per one lakh hectares of net sown area in the four regions separately, we find that Konkan (1.22) and Vidarbha (0.84) have higher number of seats per one lakh hectares, while Western Maharashtra (0.68) and Marathwada (0.58) have smaller number, compared to the State average (0.72). When the time for expansion of intake capacity arises, therefore, Marathwada and Western Maharashtra's requirements should have precedence, so that they are brought to the level of the State average.

14.37. Besides the four Agricultural University Centres, every district in the State has at least one or more agricultural research centres. Since soil, climate and crop patterns differ from region to region, it is necessary to have research stations that can carry on research relating to crops specific to

Table 14.18

Cost of Backlog in Land Development and Soil Conservation

(Rs Lakh)

District	Land Development Work by CADA	Development in non CADA Areas	Contour Bunding	Nala Bunding	Land Development cum Horticultural Development	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	-	2.78	-	47.50	18.39	68.67
3. Raigad	-	-	-	-	43.92	43.92
4. Ratnagiri	-	-	1,350.00*	-	-	1,350.00
KONKAN						
(excl. G.B.)	-	2.78	1,350.00	47.50	62.31	1,462.59
5. Nashik	-	-	-	-	-	-
6. Dhule	28.20	-	-	-	-	28.20
7. Jalgaon	-	-	171.00	-	-	171.00
8. Ahmednagar	-	11.65	-	-	-	11.65
9. Pune	787.60	12.40	-	-	-	800.00
10. Satara	55.60	-	760.50*	-	-	816.10
11. Sangli	1,048.20	-	-	-	-	1,048.20
12. Solapur	1,979.20	7.94	-	-	-	1,987.14
13. Kolhapur	563.20	-	-	60.00	219.39	842.59
WESTERN MAHARASHTRA	4,462.00	31.99	931.50	60.00	219.39	5,704.88
14. Aurangabad	-	-	-	195.00	-	195.00
15. Parbhani	901.20	3.77	715.50	179.00	-	1,799.47
16. Beed	-	0.48	36.00	202.50	1.24	240.22
17. Nanded	1,731.20	-	40.50	199.00	-	1,970.70
18. Osmanabad	-	-	-	426.00	-	426.00
MARATHWADA	2,632.40	4.25	792.00	1,201.50	1.24	4,631.39
19. Buldhana	-	6.32	-	223.00	-	229.32
20. Akola	-	-	887.50	117.50	-	1,005.00
21. Amravati	-	-	292.50	125.50	1.17	419.17
22. Yavatmal	178.80	18.56	360.00	183.50	-	740.86
23. Wardha	-	-	364.50	241.00	-	605.50
24. Nagpur	956.20	4.36	18.00	232.00	-	1,210.56
25. Bhandara	-	0.35	-	-	-	0.35
26. Chandrapur	-	21.53	1,746.00*	-	-	1,767.53
VIDARBHA	1,135.00	51.12	3,668.50	1,122.50	1.17	5,978.29
MAHARASHTRA STATE	8,229.40	90.14	6,742.00	2,431.50	284.11	17,777.15
MAHARASHTRA STATE						
(excl. G.B.)	8,229.40	90.14	6,742.00	2,431.50	284.11	17,777.15

* Inclusive of Terracing in Ratnagiri (Rs 1,350.00 Lakh), Satara (Rs 112.50 Lakh) and Chandrapur (Rs 900.00 Lakh) and in total (Rs 2,362.50 Lakh)

localities, particularly with a view to studying the adaptability of new varieties/practices to the areas. Table 14.17A shows that while the districts in Konkan and Western Maharashtra had mostly 2 or more research stations in each district, specific to different crops and fairly distributed over the districts, in most of the districts of Marathwada and Vidarbha there was only one research station. In the whole of Marathwada, there was only one research station for pulses and only one for jowar. While growing of wheat under irrigated conditions is being advocated in this region, there appears to be no research station devoted to developing wheat strains suitable to the climate and soil of the region. Similarly, in Vidarbha wheat research appears to be confined to one research station in Akola. No high yielding or hybrid variety of cotton under unirrigated condition has been developed so far in these two regions. The same appears largely the case with groundnut and tur, two of the other important crops of the region. And, finally, as noted earlier, it is high time research attention was directed to the problem of irrigated cropping in the region, particularly the manner and pattern of water use, in view of the heavy black cotton soil in many of the districts there. The desired benefits of increased investment in irrigation depend upon sound water-use technology and proper crop pattern, which have to be experimented and established early. Resources devoted to this end will lay a sound foundation for the agricultural development of the region.

14.38. Finally, in Table 14.18 we bring together the total cost of backlog in land development and soil conservation. This adds up to Rs.177.77 crore.

CHAPTER XV

VETERINARY SERVICES

15.1. The function of the Animal Husbandry Department consists mainly of providing (i) veterinary health facilities, and (ii) breeding facilities for genetic up-grading of indigenous livestock and poultry. In the following, we shall examine disparities, if any, in the provision of these two services in different districts.

15.2. To judge the disparities in the veterinary health services in different districts, we should relate them to the livestock population of the districts. Livestock consists mainly of cattle, buffaloes, horses, sheep/goat, pigs and poultry. The veterinary service needs of these animals differ greatly. Hence, it is customary to convert them to what are called standard 'cattle units'. The National Commission on Agriculture has suggested the following ratios for the purpose: Cattle, buffaloes, and horses one cattle unit each; 10 sheep/goat, 5 pigs, and 100 birds one cattle unit each. Districtwise livestock so converted into cattle units is given in Table 15.1 (Col.2).

Veterinary Health Services:

15.3. The veterinary health services are provided in institutes manned by a veterinarian or by para veterinary personnel such as the livestock supervisors. In 1983-84, there were in all 3,126 veterinary institutes in the State, out of which 975 were manned by veterinarians and the remaining by only para-veterinary personnel. Their distribution in the districts is shown in Cols.3 and 4 of the Table. In Cols.5 and 6 is shown the number of cattle units served per institute manned by a veterinarian or para-veterinary person and per institute manned by a veterinarian. In the State, excluding Greater Bombay, there was one institute, manned by either a veterinarian or para-veterinary person, per 6,530 cattle units; and there was one institute manned by a veterinarian per 20,918 cattle units.

15.4. In Table 15.1A we show the district backlog in terms of additional number of institutes which must be set up and the number of institutes which must be upgraded and manned by a veterinarian (Cols.2 and 3) so that the veterinary services in the lagging districts is brought on par with the State Average (excluding Greater Bombay). As mentioned above, there is one veterinary institute per 6,530 cattle units in the State. In 14 districts, the number is below the State Average and it will need 259 new institutes whether manned by a veterinarian or by a para-veterinary person to bring them on par with the State Average. Districtwise break-up is given in Col.2 of the Table. Similarly, there is one institute manned by a veterinarian per 20,918 cattle units. In 20 districts, the number is below the State Average

Table 15.1

Veterinary Institutes, 1983-84

District	Number of Cattle Units	Number of Vety. Institutes		Cattle Units Served Per Institute	
		Manned by Vets/Para Vets.	Of which manned by Vets.	Manned by Vets/Para Vets.	Manned by Vets.
1	2	3	4	5	6
1. Greater Bombay	88,584	6	1	14,764	88,584
2. Thane	6,20,342	93	25	6,670	24,814
3. Raigad	5,20,136	80	24	6,502	21,672
4. Ratnagiri	9,21,678	189	52	4,877	17,725
KONKAN					
<u>(excl. G.B.)</u>	<u>20,62,156</u>	<u>362</u>	<u>101</u>	<u>5,697</u>	<u>20,417</u>
5. Nashik	10,32,559	159	46	6,494	22,477
6. Dhule	7,77,382	125	35	6,219	22,211
7. Jalgaon	8,89,559	123	37	7,232	24,042
8. Ahmednagar	10,74,975	123	42	8,740	25,595
9. Pune	10,33,524	163	45	6,341	22,967
10. Satara	7,21,732	119	34	6,065	21,227
11. Sangli	6,26,209	108	22	5,798	28,464
12. Solapur	7,46,057	89	32	8,383	23,314
13. Kolhapur	7,42,179	134	45	5,539	16,493
WESTERN MAHARASHTRA	<u>76,44,176</u>	<u>1,143</u>	<u>338</u>	<u>6,688</u>	<u>22,616</u>
14. Aurangabad	10,12,793	166	42	6,101	24,114
15. Parbhani	7,83,770	96	25	8,164	31,351
16. Beed	7,51,207	100	31	7,512	24,232
17. Nanded	8,42,481	82	25	10,274	33,699
18. Osmanabad	9,83,346	172	35	5,717	28,096
MARATHWADA	<u>43,73,597</u>	<u>616</u>	<u>158</u>	<u>7,100</u>	<u>27,681</u>
19. Buldhana	6,69,518	110	32	6,087	20,922
20. Akola	7,45,189	110	41	6,774	18,175
21. Amravati	7,05,635	153	87	4,612	8,111
22. Yavatmal	9,05,518	124	35	7,303	25,872
23. Wardha	4,67,172	81	20	5,768	23,359
24. Nagpur	7,55,657	167	36	4,525	20,990
25. Bhandara	7,95,276	132	72	6,025	11,046
26. Chandrapur	12,50,152	122	54	10,247	23,151
VIDARBHA	<u>62,94,117</u>	<u>999</u>	<u>377</u>	<u>6,300</u>	<u>16,695</u>
MAHARASHTRA STATE	<u>204,62,630</u>	<u>3,126</u>	<u>975</u>	<u>6,559</u>	<u>20,988</u>
<u>(excl. G.B.)</u>	<u>203,74,046</u>	<u>3,120</u>	<u>974</u>	<u>6,530</u>	<u>20,918</u>

Table 15.1A

Backlog in Veterinary Institutes

District	Backlog* of Insti- tutes Manned by Vets/Para Vets	Backlog* of Insti- tutes Manned by Vets	Cost of Setting up Insti- tutes in Col.(2) @ Rs.55,000 each (Rs.Lakh)	Cost of upgrading Institutes in Col.(3) @ Rs.50,000 each (Rs.Lakh)	Total Cost Col.(4) + Col. (5) (Rs.Lakh)
1	2	3	4	5	6
1.Greater Bombay	8	3	-	-	-
2.Thane	2	5	1.10	2.50	3.60
3.Raigad	-	1	-	0.50	0.50
4.Ratnagiri	-	6	-	3.00	3.00
<u>KONKAN</u>					
(excl. G.B.)	<u>2</u>	<u>12</u>	<u>1.10</u>	<u>6.00</u>	<u>7.10</u>
5.Nashik	-	3	-	1.50	1.50
6.Dhule	-	2	-	1.00	1.00
7.Jalgaon	13	6	7.15	3.00	10.15
8.Ahmednagar	42	9	23.10	4.50	27.60
9.Pune	-	4	-	2.00	2.00
10.Satara	-	1	-	0.50	0.50
11.Sangli	-	8	-	4.00	4.00
12.Solapur	25	4	13.75	2.00	15.75
13.Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>80</u>	<u>37</u>	<u>44.00</u>	<u>18.50</u>	<u>62.50</u>
14.Aurangabad	-	7	-	3.50	3.50
15.Parbhani	24	12	13.20	6.00	19.20
16.Beed	15	5	8.25	2.50	10.75
17.Nanded	47	15	25.85	7.50	33.35
18.Osmanabad	2	12	1.10	6.00	7.10
<u>MARATHWADA</u>	<u>88</u>	<u>51</u>	<u>48.40</u>	<u>25.50</u>	<u>73.90</u>
19.Buldhana	-	-	-	-	-
20.Akola	4	-	2.20	-	2.20
21.Amravati	-	-	-	-	-
22.Yavatmal	15	8	8.25	4.00	12.25
23.Wardha	-	2	-	1.00	1.00
24.Nagpur	-	-	-	-	-
25.Bhandara	-	-	-	-	-
26.Chandrapur	70	6	38.50	3.00	41.50
<u>VIDARBHA</u>	<u>89</u>	<u>16</u>	<u>48.95</u>	<u>8.00</u>	<u>56.95</u>
<u>MAHARASHTRA STATE</u>	<u>267</u>	<u>119</u>			
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	<u>259</u>	<u>116</u>	<u>142.45</u>	<u>58.00</u>	<u>200.45</u>

* Backlog based on State Averages excluding Greater Bombay.

and it will need 116 institutes to be upgraded and manned by a veterinarian in order to bring these districts on par with the State Average. Districtwise break-up is given in Col.3. (The estimates of backlog are made after taking into account the new districts of Sindhurg, Jalna, Latur and Gadchiroli although these are not shown separately.)

15.5. In order to estimate the annual cost of removing this backlog, we note that the total annual Plan and non-Plan expenditure of the Animal Husbandry Department in 1983-84 amounted to about Rs.22.00 crore. As already noted, there were in all 3,126 institutes of which 975 were manned by a veterinarian. We understand that the cost of upgrading an institute manned by para-veterinary personnel to one manned by a veterinarian is about Rs. 50,000 per annum. On this basis, the cost of an institute manned by para-veterinary personnel would be Rs.54,783 per annum which we shall round to Rs.55,000 per annum. The annual expenditure of the Department may thus be split up as follows:

3,126 institutes manned by para-vet. at Rs.55,000 per annum	Rs.17,19,30,000
Cost of upgrading 975 of the institutes to be manned by a vet. at Rs.50,000/- per annum	Rs. 4,87,50,000

Total	Rs.22,06,68,000

Hence, for estimating the annual cost of removing the backlog as detailed in Cols.2 and 3 of Table 15.1A, we shall suppose that 259 new institutes manned by para-veterinary personnel will be set up at an average cost of Rs.55,000 per institute and that 116 of the existing institutes will be upgraded and provided with a veterinarian at an average cost of Rs.50,000 per institute. These costs are given in Cols.4 and 5 of the Table. The total of the two is given in Col.6. In the aggregate, it comes to Rs.2.00 crore per annum.

15.6. We understand that a large veterinary and A.I. programme is expected in 17 districts under Operation Flood. But presuming that the cost of these additional services will be borne by the respective Co-operatives, we have not taken these into account while working out the backlog.

Artificial Insemination:

15.7. The other function of the Department is to provide breeding facilities for genetic upgrading of livestock and poultry. We shall examine only the cattle breeding by artificial insemination. Relevant data are given in Table 15.2. In Col.2 is given the number of adult cows (3 years and above). In Col.3 is given the number of artificial insemination (A.I.) centres. There are 2,572 A.I. centres in the State. These are not

Table 15.2

Artificial Insemination Facilities and Performance 1982-83

District	Number of Cows	Number of Artificial Insemination Centres	Number of Cows per A.I. Centre	Number of Artificial Inseminations Performed during 1982-83	Number of Artificial Inseminations Performed per Centre	Backlog of Centres
1	2	3	4	5	6	7
1. Greater Bombay	2,994	-	-	-	-	-
2. Thane	153,428	85	1,805	2,133	25	-
3. Raigad	127,913	65	1,968	3,027	47	5
4. Ratnagiri	194,273	141	1,378	12,557	89	-
<u>KONKAN</u> (excl. G.B.)	<u>475,614</u>	<u>291</u>	<u>1,634</u>	<u>17,717</u>	<u>61</u>	<u>5</u>
5. Nashik	277,689	139	1,998	31,739	228	12
6. Dhule	179,671	104	1,728	22,055	212	-
7. Jalgaon	185,826	122	1,523	16,717	137	-
8. Ahmednagar	266,941	101	2,643	68,413	677	44
9. Pune	224,265	164	1,367	90,629	553	-
10. Satara	127,658	99	1,289	41,846	423	-
11. Sangli	92,750	105	883	51,327	489	-
12. Solapur	150,015	59	2,543	8,389	142	23
13. Kolhapur	73,138	114	642	43,196	379	-
<u>WESTERN MAHARASHTRA</u>	<u>1,577,953</u>	<u>1,007</u>	<u>1,567</u>	<u>374,311</u>	<u>372</u>	<u>79</u>
14. Aurangabad	203,848	150	1,359	27,516	183	-
15. Parbhani	216,483	84	2,577	8,982	107	34
16. Beed	163,598	87	1,880	16,643	191	2
17. Nanded	225,932	56	4,035	9,048	162	67
18. Osmanabad	193,746	141	1,374	19,067	135	-
<u>MARATHWADA</u>	<u>1,003,607</u>	<u>518</u>	<u>1,937</u>	<u>81,256</u>	<u>157</u>	<u>103</u>
19. Buldhana	165,937	75	2,212	12,497	167	15
20. Akola	189,789	70	2,711	6,474	92	33
21. Amravati	177,245	133	1,333	13,391	101	-
22. Yavatmal	274,833	87	3,159	7,425	85	62
23. Wardha	139,023	69	2,015	10,135	147	7
24. Nagpur	228,915	166	1,379	25,395	153	-
25. Bhandara	184,149	106	1,737	15,101	142	-
26. Chandrapur	314,736	50	6,295	3,088	62	121
<u>VIDARBHA</u>	<u>1,674,627</u>	<u>756</u>	<u>2,215</u>	<u>93,506</u>	<u>124</u>	<u>238</u>
<u>MAHARASHTRA STATE</u>	<u>4,734,795</u>	<u>2,572</u>	<u>1,841</u>	<u>566,790</u>	<u>220</u>	<u>425</u>
<u>(excl. G.B.)</u>	<u>4,731,801</u>	<u>2,572</u>	<u>1,840</u>	<u>566,790</u>	<u>220</u>	<u>425</u>

independent centres but only A.I. facilities provided at the existing veterinary institutes. Thus we may say that out of 3,120 veterinary institutes in the districts (other than Greater Bombay) 2572 are provided with A.I. facilities. In Col.4 is given the number of cows served per centre. The State Average is 1,840 cows per centre. In Col.5 are given the number of artificial inseminations done during 1982-83. The total number of A.Is. is 566,790 constituting 12.0 per cent of adult cows. The incidence is different in different districts and regions. In Western Maharashtra it is 23.72 percent; in Marathwada, 8.10 per cent; in Vidarbha, 5.45 per cent; and in Konkan, 3.73 per cent. Generally, the reason is not so much that there are fewer A.I. centres in these regions or districts; rather, because of low response, fewer A.Is. are performed per centre. The number of A.Is. per centre is given in Col.6. The State Average is 220 A.Is. per centre. It is 372 in Western Maharashtra, 157 in Marathwada, 124 in Vidarbha and 61 in Konkan. Nevertheless, in Col.7 we have shown the backlog in terms of number of A.I. centres on the basis of one A.I. Centre per 1,840 cows being the State Average. In the aggregate, 425 additional A.I. centres are needed. These may be provided as it involves no more than providing A.I. facilities in the existing veterinary institutes.

CHAPTER XVI

CO-OPERATION

16.1. Co-operative enterprise is essentially private enterprise. However, in India, it has, from the beginning, been actively promoted and helped by the State. The State Government provides the legal framework, registers the co-operative societies and other institutions and inspects and audits their accounts. Often, it contributes to their share capital and gives assistance in their administration and management. It provides financial assistance by way of loans and subsidies and by underwriting loans from financial institutions. Sometimes, it reserves fields of activities for the co-operatives thus protecting them from competition from other private organizations. Nevertheless, what the Government can do is to promote, protect and assist. Ultimately, the success of co-operatives depends upon the local interest, initiative and leadership.

Agricultural Credit

16.2. Provision of credit for agriculture is the oldest and the major co-operative activity in the State. The Primary Agricultural Credit Societies and their district and State level apex bodies, the District Co-operative Bank and the State Co-operative Bank, together provide mainly short term credit (commonly referred to as Crop loan), and to a limited extent medium term credit to agriculture. The State and the District Central Co-operative Banks also provide short-term loans to agricultural marketing societies, processing and industrial societies, including sugar factories and spinning mills, as well as to other co-operative institutions. The State Land Development Bank provides medium and long term credit (commonly referred to as Term Loan) to agriculture.

16.3. At the end of June 1982, there were in the State 18,406 Primary Agricultural Credit (PAC) Societies, including Farmers Service Societies (FSS) and Adivasi Seva Societies (ASS). In Table 16.1, we give some details. It will be seen that in the State as a whole only 32.5 per cent of societies were viable in the sense that they had lending of more than Rs. 2 lakh a year. This percentage was 57.0 in Western Maharashtra, 22.6 in Vidarbha, 14.9 in Marathwada, and only 2.3 in Konkan. Again, only 52.4 per cent of the societies in the State showed profits in 1981-82; this percentage was 63.8 in Konkan, 63.2 in Western Maharashtra, 44.0 in Vidarbha and 37.9 in Marathwada.

16.4. In Col.5 of the Table we give the percentage of total Khatedars (i.e. one who held land for cultivation on his own) who were members of the PAC societies in 1981-82. Over 83 per cent Khatedars in the State were members. Only in Konkan the

Table 16.1

Primary Agricultural Credit Societies as on June 30, 1982

District	Number of Societies	Percentage of Viable* Societies to Total Societies	Percentage of Societies in Profit to Total	Percentage of Khate-dar Members to Total Khate-dars	Percentage of Khate-dar Members to Total Members	Percentage of Borrowing Members to Total Members	Advances Per Borrowing Member (Rs.)
1	2	3	4	5	6	7	8
1. Greater Bombay	9	-	66.7	-	-	-	13
2. Thane	381	5.8	75.3	61.1	68.0	23.3	517
3. Raigad	502	1.6	37.8	74.3	89.1	17.5	536
4. Ratnagiri	585	0.7	78.5	57.2	83.5	21.8	339
KONKAN							
(excl. G.B.)	1,468	2.3	63.8	62.2	79.9	19.1	437
5. Nashik	810	56.2	62.8	89.2	78.8	33.2	2,601
6. Dhule	599	62.3	57.4	73.8	67.4	25.2	2,100
7. Jalgaon	862	69.7	45.5	85.5	93.4	38.8	2,340
8. Ahmednagar	1,054	75.8	57.4	91.2	85.3	27.2	3,099
9. Pune	813	42.2	81.7	78.2	88.1	22.3	2,732
10. Satara	753	30.8	56.0	78.7	87.9	21.0	1,764
11. Sangli	518	43.8	58.1	84.7	75.8	33.3	2,368
12. Solapur	854	36.8	62.6	83.9	81.7	15.3	3,342
13. Kolhapur	846	84.7	85.5	99.5	62.8	48.4	1,904
WESTERN MAHARASHTRA	7,109	57.0	63.2	84.9	79.7	30.0	2,399
14. Aurangabad	1,251	16.1	34.6	82.9	92.5	41.9	1,266
15. Parbhani	884	13.0	48.0	84.8	90.8	60.2	941
16. Beed	755	15.5	31.9	79.3	85.8	17.8	1,435
17. Nanded	958	6.1	44.3	94.8	86.0	42.6	956
18. Osmanabad	961	23.5	31.1	81.2	85.2	13.6	1,432
MARATHWADA	4,809	14.9	37.9	84.1	88.3	35.9	1,124
19. Buldhana	572	31.5	37.1	90.5	101.6(?)	37.2	1,927
20. Akola	836	26.4	30.4	93.5	92.6	21.6	2,066
21. Amravati	665	23.5	19.5	87.6	86.8	16.4	1,044
22. Yavatmal	542	46.7	75.1	75.5	84.7	27.5	1,883
23. Wardha	403	18.6	41.9	96.1	100.0	26.5	2,150
24. Nagpur	600	17.0	56.2	89.5	88.9	14.6	1,748
25. Bhandara	688	1.5	30.6	80.5	93.9	20.0	872
26. Chandrapur	705	19.1	49.2	86.8	83.6	14.1	1,167
VIDARBHA	5,011	22.6	44.0	86.5	90.7	22.1	1,572
MAHARASHTRASTATE	18,406	32.3	51.4	83.3	84.4	27.9	-
MAHARASHTRA STATE	(excl. G.B.)	18,397	32.3	51.4	83.3	27.9	1,771

* With lending above Rs. 2 lakh.

percentage was low, 62; in all other regions it was higher than the State Average. Besides all the three districts of Konkan, where the percentage was much lower than the State Average, the districts of Dhule, Pune and Satara in Western Maharashtra, Aurangabad, Beed and Osmanabad in Marathwada and Yavatmal and Bhandara in Vidarbha showed somewhat lower percentages than the State Average.

16.5. Not all members of the PACs are khatedars. Col.6 of the Table shows that, in June 1982, 84.4 per cent of the members were khatedars. The remaining 15.6 per cent were artisans, landless labourers, etc., whom the PACs were in a position to help with short-term loans for their crafts, or for milch cattle, or even for purposes of consumption. The percentage of khatedars among PAC members was much higher in the Vidarbha districts, as also in Marathwada.

16.6. Not all members borrowed from the PACs in any particular year. During 1981-82 only about 28 per cent of the members had borrowed from the PACs (Col.7). This proportion was highest in Marathwada region and in Western Maharashtra it was higher than the State Average. It was the lowest in Konkan and also lower than the State Average in Vidarbha. Among districts, only Buldhana in Vidarbha, Parbhani, Nanded and Aurangabad in Marathwada and Kolhapur, Sangli, Jalgaon and Nashik in Western Maharashtra had more than the State Average of PAC members borrowing during the year 1981-82.

16.7. In Table 16.2, we give districtwise situation in respect of outstanding and default. It will be seen that nearly half (49.2%) of the PAC members in the State had outstanding debts against them by the end of June 1982 (Col.2). This percentage was 58.9 in Marathwada and 52.6 in Vidarbha. All the districts of Konkan, the districts of Pune, Satara, Sangli and Solapur of Western Maharashtra, only Osmanabad district of Marathwada and three districts of Vidarbha, Amravati, Bhandara and Chandrapur had a smaller percentage of members with outstanding dues than the State Average. The districts of Nanded, Parbhani, Aurangabad, Yavatmal and Nagpur had more than 60 per cent of their borrowers with outstanding dues.

16.8. More than half (53.5%) the members with outstanding dues from short term loans in 1981-82 were defaulters (Col.4). The percentage of defaulters among those with outstanding dues was higher than the State Average in the districts of Chandrapur, Bhandara, Nagpur, Akola in Vidarbha, Osmanabad and Beed in Marathwada, Solapur, Ahmednagar, Nashik, Dhule and Jalgaon in Western Maharashtra and Thane and Raigad in Konkan. It may be noticed that out of these districts, only two, Osmanabad and Solapur had also higher percentage of members with outstanding dues. It means that the districts with greater percentage of borrowers with overdues were not necessarily those with a higher percentage of members with outstanding dues. The net result of both these is that, more than 26 per cent of the members of PACs were defaulters by the end of June 1982 (Col.3), and were

Table 16.2

Outstanding and Default in Short Term Loans
as on 30th June 1982

District	Percentage of Members With Outstandings to Total Members	Percentage of Defaulters to Total Members	Percentage of Defaulters to Members With Outstandings	Percentage of Overdues to Amount Outstanding
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	36.7	32.0	87.3	75.9
3. Raigad	32.1	21.9	68.2	68.1
4. Ratnagiri	25.1	9.9	39.3	33.2
<u>KONKAN</u>				
(excl. G.B.)	29.9	19.1	63.8	57.1
5. Nashik	59.7	40.3	67.5	38.7
6. Dhule	57.9	37.6	65.0	40.4
7. Jalgaon	55.9	33.0	59.1	47.9
8. Ahmednagar	49.2	28.3	57.6	33.9
9. Pune	34.2	18.1	52.8	27.2
10. Satara	30.2	12.1	40.0	27.7
11. Sangli	37.4	13.7	36.6	14.9
12. Solapur	40.6	27.9	68.8	43.9
13. Kolhapur	50.4	16.2	32.2	13.7
<u>WESTERN</u>				
<u>MAHARASTRA</u>	46.7	25.3	54.1	32.4
14. Aurangabad	63.5	28.0	44.1	35.6
15. Purbhani	65.3	28.6	43.8	47.5
16. Beed	47.7	27.9	58.5	37.7
17. Nanded	71.9	25.2	35.1	29.0
18. Osmanabad	45.7	29.7	64.9	55.9
<u>MARATHWADA</u>	58.9	27.9	47.4	35.4
19. Buldhana	73.4	32.4	44.2	43.6
20. Akola	51.5	30.9	60.0	72.4
21. Amravati	41.6	21.9	52.7	61.7
22. Yavatmal	62.0	30.6	49.3	43.3
23. Wardha	57.1	30.6	53.6	67.8
24. Nagpur	61.1	35.4	58.0	62.4
25. Bhandara	37.2	23.9	64.2	68.6
26. Chandrapur	41.8	31.0	74.2	62.4
<u>VIDARBHA</u>	52.6	24.3	55.7	57.3
<u>MAHARASTRA STATE</u>	49.2	26.3	53.5	39.8
<u>MAHARASTRA STATE</u>				
(excl. G.B.)	49.2	26.3	53.5	39.8

therefore not entitled to borrow. The percentage of defaulter members of PACs was higher than the State Average in 6 of the 8 districts of Vidarbha, in all but Nanded district of Marathwada, in Nashik, Dhule, Jalgaon, Ahmednagar and Solapur of Western Maharashtra and Thane District of Konkan.

16.9. While the percentage of defaulters among those with outstanding was as high as 53.5 per cent, the percentage of the outstanding amount which was considered overdue was smaller, 39.8 per cent (Col.5). In the Vidarbha and Konkan regions the percentage was much higher than the State Average. The percentage of defaulters was higher in the Western Maharashtra and Marathwada regions than the percentage of the overdue amount. This means that a relatively smaller part of the total outstanding was "overdue" in these regions than in Vidarbha. Thus it appears that both in terms of percentage of defaulters and percentage of outstanding loans that were overdue, the problem may be said to be more serious in Vidarbha region.

16.10. Table 16.3 gives the cropwise percentage distribution of total crop loan advanced during 1981-82. For the State as a whole sugarcane alone accounts for 40 per cent of the total crop loan, though it covers only 1.5 per cent of the gross cropped area of the State. In Western Maharashtra where it is largely concentrated, it accounts for 54.24 per cent of the total crop loan; in the districts of Kolhapur and Ahmednagar it accounts for more than 80 per cent. The other important cash crop in the State is cotton which accounts for about 20 per cent of the crop loan though it occupies about 12 per cent of the gross cropped area. It is the most important crop for loans in Vidarbha, accounting for 54.71 per cent of the total crop loan in the region; in four of the districts, Akola, Amravati, Yavatmal and Wardha, it accounted for more than 60 per cent of all crop loan. Foodgrains and oilseeds account for about 30 per cent of the loan, 25.66 for foodgrains and 5.18 per cent for oilseeds, though the foodgrain crops account for much larger proportions of the gross cropped area in the State. Oilseeds in Vidarbha do not account for even 1.5 per cent of crop loans - it is significant only in Amravati district, though oilseeds account for about 5 per cent of the gross cropped area. It means, most oilseed farmers do not seek any loans, because as current cultural practice goes, it needs little purchased input than labour. This however, is an important crop for purposes of loan in Pune, Solapur and Dhulia, which may be due to the growing of summer groundnut under irrigated condition. Paddy is the main crop for which crop loans are taken in the Konkan districts as well as in Bhandara, and to a lesser extent, in Chandrapur.

16.11. The difference in availing crop loans is accounted for by the crop pattern in two ways; (i) Some crops unavoidably need short term loans to buy inputs, while others do not need such inputs; (ii) certain crops need much larger amounts of loan per acre than others. Thus, sugarcane needs much larger loan accommodation than cotton. These two go to explain the regional imbalance in the amount of advances per borrower by the PACs.

Table 16.3

Cooperative Finance Disbursed by Primary Agricultural
Cooperative Societies, Cropwise, 1981-82

District	Crop Fi- nance Disbursed (Rs. Lakh)	Percentage of Disbursement for				
		Food- grains	Oil Seeds	Cotton	Sugar- cane	Others
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	124	96.77	-	-	-	3.23
3. Raigad	118	99.15	-	-	-	0.85
4. Ratnagiri	180	93.89	-	-	0.56	5.55
<u>KONKAN</u>						
(excl. G.B.)	422	96.21	-	-	0.24	3.55
5. Nashik	2,289	23.33	5.68	0.79	48.19	22.01
6. Dhule	1,260	34.13	12.54	20.79	20.32	12.22
7. Jalgaon	2,036	35.90	5.21	26.82	14.24	17.83
8. Ahmednagar	2,479	10.81	0.65	1.53	80.48	6.53
9. Pune	1,366	16.40	25.18	4.10	43.78	10.54
10. Satara	882	14.85	7.71	4.20	68.48	4.76
11. Sangli	1,468	28.00	5.11	2.86	49.86	14.17
12. Solapur	1,036	11.87	21.04	5.21	55.22	6.66
13. Kolhapur	3,122	15.60	1.15	0.03	80.88	2.34
<u>WESTERN MAHARASHTRA</u>	15,938	20.94	7.22	6.61	54.24	10.79
14. Aurangabad	1,558	26.76	1.80	28.95	37.29	5.20
15. Parbhani	1,110	24.50	5.23	40.45	14.95	14.86
16. Beed	445	23.37	6.52	1.12	66.07	2.92
17. Nanded	860	27.79	1.51	29.77	35.47	5.46
18. Osmanabad	444	41.44	0.68	2.25	52.25	3.38
<u>MARATHWADA</u>	4,417	27.53	2.97	26.51	35.72	7.27
19. Buldhana	1,137	27.44	0.97	51.01	14.25	6.33
20. Akola	1,033	31.66	-	64.57	0.10	3.67
21. Amravati	595	10.76	9.58	60.17	0.33	19.16
22. Yavatmal	1,186	27.15	0.67	62.65	4.13	5.40
23. Wardha	516	26.36	-	71.32	-	2.32
24. Nagpur	367	30.79	0.82	38.96	-	29.43
25. Bhandara	314	100.00	-	-	-	-
26. Chandrapur	350	55.14	-	42.57	-	2.29
<u>VIDARBHA</u>	5,498	32.39	1.44	54.71	3.89	7.57
<u>MAHARASHTRA STATE</u>	26,275	25.66	5.18	19.92	39.84	9.40
<u>MAHARASHTRA STATE</u>						
(excl. G.B.)	26,275	25.66	5.18	19.92	39.84	9.40

Table 16.4

Crop Finance Disbursed by Primary Agricultural
Credit Societies, 1981-82

District	Normal Credit Limits of Short Term Loans Sanctioned by DCCBs (Rs.Lakh)	Area Under Cultivation, 1981-82 (000 ha)	Crop Finance Disbursed in 1981-82 (Rs. Lakh)	Per Hectare Crop Finance Disbursed Col.(4)/Col.(3) (Rs.)	Percentage of Col.(5) to Col.(2)
1	2	3	4	5	6
1. Greater Bombay	-	6.40	-	-	-
2. Thane	669	279.50	124	44.36	18.5
3. Raigad	463	227.30	118	51.91	25.5
4. Ratnagiri	293	389.70	180	46.19	61.4
<u>KONKAN</u>					
(excl. G.B.)	1,425	896.50	422	47.07	29.6
5. Nashik	4,823	985.30	2,289	232.32	47.5
6. Dhule	2,546	770.00	1,260	163.64	49.5
7. Jalgaon	5,497	979.70	2,036	207.82	37.0
8. Ahmednagar	13,091	1,334.40	2,479	185.78	18.9
9. Pune	6,406	1,147.00	1,366	119.09	21.3
10. Satara	2,716	745.50	882	118.31	32.5
11. Sangli	5,090	662.40	1,468	221.62	28.8
12. Solapur	3,251	1,213.50	1,036	85.37	31.9
13. Kolhapur	3,501	437.80	3,122	713.11	89.2
<u>WESTERN MAHARASHTRA</u>	44,921	8,275.60	15,938	192.59	35.5
14. Aurangabad	6,544	1,373.10	1,558	113.47	23.8
15. Parbhani	2,112	1,153.20	1,110	96.25	52.6
16. Beed	3,468	895.60	445	49.69	12.8
17. Nanded	2,547	776.30	860	110.78	33.8
18. Osmanabad	1,969	1,346.20	444	32.98	22.5
<u>MARATHWADA</u>	16,640	5,544.40	4,417	79.67	26.5
19. Buldhana	2,850	786.90	1,137	144.49	39.9
20. Akola	6,296	841.10	1,033	122.82	16.4
21. Amravati	2,695	776.80	595	76.60	22.1
22. Yavatmal	2,979	873.70	1,186	135.74	39.8
23. Wardha	2,867	460.50	516	112.05	18.0
24. Nagpur	3,574	619.70	367	59.22	10.2
25. Bhandara	1,180	538.40	314	58.32	26.6
26. Chandrapur	1,661	765.90	350	45.70	21.1
<u>VIDARBHA</u>	25,922	5,663.00	5,498	97.03	21.2
<u>MAHARASHTRA STATE</u>	87,088	20,385.90	26,275	128.89	30.2
<u>MAHARASHTRA STATE</u>					
(excl. G.B.)	87,088	20,379.50	26,275	128.93	30.2

Table 16.5

Medium Term Loans Disbursed by PACS
During 1977-78 to 1981-82

District	Cumulative 1977-78 to 1981-82			
	Medium Term loans Advan- ced (Rs. Lakh)	Of Which Conver- sion	Col.(3) as Percentage to Col.(2)	Net Advances Per Member (Rs.)
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	30	3	10.00	18
3. Raigad	112	37	33.04	55
4. Ratnagiri	145	2	1.36	54
<u>KONKAN</u>				
(excl. G.B.)	<u>287</u>	<u>42</u>	<u>14.63</u>	<u>46</u>
5. Nashik	1,196	459	38.38	260
6. Dhule	414	137	29.85	114
7. Jalgaon	208	171	82.21	16
8. Ahmednagar	1,466	95	6.48	381
9. Pune	256	53	20.70	78
10. Satara	576	18	3.12	255
11. Sangli	1,190	7	0.59	540
12. Solapur	602	470	78.07	58
13. Kolhapur	624	-	-	184
<u>WESTERN</u>				
<u>MAHARASTRA</u>	<u>6,532</u>	<u>1,410</u>	<u>21.59</u>	<u>213</u>
14. Aurangabad	215	41	19.07	61
15. Purbhani	299	59	19.73	122
16. Beed	60	10	16.67	25
17. Nanded	423	10	2.36	193
18. Osmanabad	68	22	32.35	19
<u>MARATHWADA</u>	<u>1,065</u>	<u>142</u>	<u>13.33</u>	<u>81</u>
19. Buldhana	552	151	27.36	213
20. Akola	1,007	988	98.11	8
21. Amravati	373	279	74.80	43
22. Yavatmal	977	916	93.76	27
23. Wardha	333	235	70.57	1
24. Nagpur	271	268	98.89	2
25. Bhandara	198	76	38.38	68
26. Chandrapur	240	104	43.33	64
<u>VIDARBHA</u>	<u>3,951</u>	<u>3,017</u>	<u>76.36</u>	<u>63</u>
<u>MAHARASTRA STATE</u>	<u>11,835</u>	<u>4,611</u>	<u>38.96</u>	<u>129</u>
<u>MAHARASTRA STATE</u>	<u>11,835</u>	<u>4,611</u>	<u>38.96</u>	<u>129</u>
(excl. G.B.)				

Col.8 of Table 16.1 gives the amount advanced per borrowing member. The average amount borrowed was Rs. 2,399 in Western Maharashtra, Rs. 1,572 in Vidarbha, Rs. 1,124 in Marathwada and only Rs. 437 in Konkan.

16.12. For the same reason, the crop finance per hectare varies between regions and districts. The relevant data are shown in Table 16.4. It will be seen (Col.5), that the crop finance per hectare amounted to Rs. 192.59 in Western Maharashtra, Rs. 97.03 in Vidarbha, Rs. 79.67 in Marathwada, and Rs. 47.07 in Konkan. It was exceptionally high in Kolhapur being Rs. 713.11. If we leave that aside, crop finance per hectare varied from Rs. 232.32 in Nashik and Rs. 221.62 in Sangli to Rs. 44.36 in Thane and Rs. 32.98 in Osmanabad.

16.13. But the Table also brings out the fact that the amount of crop finance disbursed does not bear the same proportion in different districts, to the Normal Credit Limits sanctioned by the DCCBs which take into account the differences in cropping pattern and credit needs of different crops. In the State as a whole, the finance disbursed amounted to 30.2 per cent. In Western Maharashtra, it was 35.5 per cent, and in Vidarbha 21.2 per cent. There are large variations between districts even within the same region. Even if we leave aside Kolhapur with 89.2 per cent, it was 49.5 per cent in Dhule and 18.9 per cent in Ahmednagar; 52.6 per cent in Parbhani and 12.8 per cent in Beed; nearly 40 per cent in Buldhana and Yavatmal and 10.2 per cent in Nagpur; and 61.4 per cent in Ratnagiri and 18.5 per cent in Thane.

16.14. One reason for not only low borrowing but also poor repayment of loans leading to mounting overdues is crop failure due to adverse weather or other adverse farm conditions. The short term loans in such circumstance is converted into medium term loans. Table 16.5 shows the total amount of medium term loans disbursed by the PACs during the 5 years, 1977-78 to 1981-82, and the percentage of it which was merely conversion of short term loans into medium term. It may be seen that while the conversions formed only 39 per cent of total medium term advances in the State as a whole, it was more than 76 per cent in Vidarbha. All the Vidarbha districts except Buldhana, Bhandara and Chandrapur had more than 70 per cent as conversions and in three of them, Akola. Yavatmal and Nagpur, almost the entire medium term loan consisted of such conversions. Only in two other districts, Solapur and Jalgaon of Western Maharashtra was the share of such conversions as high. The large percentage of overdues and the conversion of other short term loans into medium term, in addition to the relatively low borrowings per borrower and per hectare, indicate a sluggish farm economy. The regional imbalances in these matters are symptomatic of deeper malady that can be remedied only through a more purposeful strategy of agricultural development in the region.

16.15. What is true of the short term and medium term loans by the PAC Societies, is also broadly true about the long and medium

term loans given by the Land Development Banks. Table 16.6 summarises the relevant information for the year 1981-82. Whether one examines the total of such loan advances per 1000 ha. of sown area or per member, the Western Maharashtra region takes much more of such loans than any other region, particularly Marathwada and Vidarbha. On a per hectare basis, term loan advances amounted to Rs. 24,950 in Western Maharashtra, Rs. 19,760 in Konkan, Rs. 9,387 in Vidarbha and Rs. 8,625 in Marathwada. On a per member basis, it was Rs. 790 in Western Maharashtra, Rs. 811 in Konkan, Rs. 261 in Vidarbha and Rs. 187 in Marathwada.

16.16. Timely recovery of term loans was also poorer in most districts of Marathwada and Vidarbha. While for the State as a whole 51 per cent of the demand was recovered, it was 65.5 per cent in Western Maharashtra, 53.3 per cent in Konkan, 44.1 per cent in Vidarbha and 37.8 per cent in Marathwada.

16.17. A number of Primary Agricultural Credit Societies are multi-purpose societies and supply agricultural requisites and consumer goods. In Table 16.7, we give districtwise value of sale by these societies during 1981-82. It will be seen that the total sales amounted to Rs. 174.22 crore. Of these 45.05 per cent was sale of fertilizers, 8.01 per cent sale of other agricultural requisites such as seeds, and 46.91 per cent was sale of consumer goods. The total value of sale and its composition differed greatly between the districts.

16.18. The State Co-operative Bank makes its finances available to the individual cultivator largely through the District Central Co-operative Banks. It gives direct finance to co-operative institutions such as marketing and processing societies. In the following, is given a classification of the advances made by the Maharashtra State Co-operative Bank during 1981-82.

<u>Purpose</u>	<u>Rs. Crore</u>	<u>Percentage to total</u>
1. Sugar Factories	179.27	35.79
2. District Central Co-op.Banks	129.98	25.95
3. Marketing Societies	123.81	24.72
4. Processing and industrial societies	26.55	5.30
5. Spinning Mills	16.25	3.24
6. Urban Banks	7.57	1.51
7. Individuals	0.99	0.21
8. Other Societies	16.42	3.28
	-----	-----
	500.84	100.00
	=====	=====

Thus, advances to sugar factories and spinning mills in the co-operative field as well as other processing and industrial societies and marketing societies form substantial part of the

Table 16.6

Advances by Maharashtra State Co-operative
Land Development Bank, 1981-82

District	Area Under Cultiva- tion 1981-82	Advances by LDB's 1981-82	Advances by LDB'S per '000 ha 1981-82	Advances by LDB's per Member 1981-82	Percen- tage of Recovery to Demand 1981-82
	(⁰ 00 ha)	(Rs. Lakh)	(Rs.)	(Rs.)	
1	2	3	4	5	6
1. Greater Bombay	6.40	-	-	-	
2. Thane	279.50	64.77	23,173	870	63.6
3. Raigad	227.30	43.06	18,944	488	43.2
4. Ratnagiri	389.70	69.32	17,788	1,239	70.6
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	<u>896.50</u>	<u>177.15</u>	<u>19,760</u>	<u>811</u>	<u>53.3</u>
5. Nashik	985.30	189.45	19,228	438	66.0
6. Dhule	770.00	226.42	29,405	1,207	76.2
7. Jalgaon	979.70	184.02	18,783	940	74.4
8. Ahmednagar	1,334.40	214.29	16,059	462	64.1
9. Pune	1,147.00	370.07	32,264	1,469	78.2
10. Satara	745.50	172.93	23,196	694	74.3
11. Sangli	662.40	178.57	26,958	660	65.9
12. Solapur	1,213.50	148.92	12,272	469	47.3
13. Kolhapur	437.80	380.06	86,811	1,551	55.9
<u>WESTERN</u>					
<u>MAHARASHTRA</u>	<u>8,275.60</u>	<u>2,064.73</u>	<u>24,950</u>	<u>790</u>	<u>65.5</u>
14. AURANGABAD	1,373.10	101.87	7,419	148	37.6
15. Parbhani	1,153.20	79.04	6,854	191	59.9
16. Beed	895.60	68.10	7,604	145	26.8
17. Nanded	776.30	38.69	4,984	122	31.5
18. Osmanabad	1,346.20	190.53	14,153	286	38.5
<u>MARATHWADA</u>	<u>5,544.40</u>	<u>478.23</u>	<u>8,625</u>	<u>187</u>	<u>37.8</u>
19. Buldhana	786.90	87.79	11,156	338	56.6
20. Akola	841.10	47.27	5,620	159	40.8
21. Amravati	776.80	66.59	8,572	216	54.3
22. Yavatmal	873.70	58.79	6,729	234	43.6
23. Wardha	460.50	66.91	14,530	312	34.7
24. Nagpur	619.70	84.16	13,581	319	35.2
25. Bhandara	538.40	80.32	14,918	433	62.6
26. Chandrapur	765.90	39.76	5,191	153	36.4
<u>VIDARBHA</u>	<u>5,663.00</u>	<u>531.59</u>	<u>9,387</u>	<u>261</u>	<u>44.1</u>
<u>MAHARASHTRA STATE</u>	<u>20,385.90</u>	<u>3,251.70</u>	<u>15,950</u>	<u>438</u>	<u>51.0</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>20,379.50</u>	<u>3,251.70</u>	<u>15,955</u>	<u>438</u>	<u>51.0</u>

Table 16.7

Value of Agricultural Requisites and Consumer Goods Sold
by Primary Agricultural Credit Societies, 1981-82

District	Value of Agricultural Re- quisites and Con- sumer Goods Sold (Rs. Lakh)	Percentage of Agricultural Requisites Sold	Percentage of Consumer Goods Sold	Percentage of Ferti- lizers Sold to Total Agri- cultural Requisites
1	2	3	4	5
1. Greater Bombay	3	-	100.00	-
2. Thane	575	30.43	69.57	74.29
3. Raigad	185	38.92	61.08	98.61
4. Ratnagiri	894	18.79	81.21	98.81
<u>KONKAN</u>				
(excl. G.B.)	<u>1,657</u>	<u>25.05</u>	<u>74.95</u>	<u>88.43</u>
5. Nashik	1,291	65.92	34.08	93.77
6. Dhule	800	66.88	33.12	79.63
7. Jalgaon	1,085	59.17	40.83	87.07
8. Ahmednagar	2,241	63.05	36.95	85.28
9. Pune	325	42.15	57.85	92.70
10. Satara	528	64.39	35.61	91.18
11. Sangli	1,371	56.46	43.54	89.92
12. Solapur	525	20.95	79.05	97.27
13. Kolhapur	2,716	69.62	30.38	99.15
<u>WESTERN</u>				
<u>MAHARASTRA</u>	<u>10,882</u>	<u>61.51</u>	<u>38.49</u>	<u>91.18</u>
14. Aurangabad	254	47.64	52.36	95.04
15. Purbhani	57	57.89	42.11	63.64
16. Beed	173	21.96	78.04	73.68
17. Nanded	798	70.30	29.70	46.70
18. Osmanabad	1,231	4.71	95.29	87.93
<u>MARATHWADA</u>	<u>2,513</u>	<u>32.27</u>	<u>67.73</u>	<u>58.82</u>
19. Buldhana	569	88.75	11.25	74.65
20. Akola	93	18.28	81.72	88.23
21. Amravati	329	32.22	67.78	57.55
22. Yavatmal	466	47.42	52.58	59.28
23. Wardha	197	56.35	43.65	18.92
24. Nagpur	66	45.45	54.55	73.33
25. Bhandara	276	50.36	49.64	100.00
26. Chandrapur	377	53.32	46.68	67.66
<u>VIDARBHA</u>	<u>2,373</u>	<u>56.05</u>	<u>43.95</u>	<u>67.82</u>
<u>MAHARASTRA STATE</u>	<u>17,425</u>	<u>53.08</u>	<u>46.92</u>	<u>84.86</u>
<u>MAHARASTRA STATE</u>	<u>17,422</u>	<u>53.09</u>	<u>46.91</u>	<u>84.86</u>
(excl. G.B.)				

credit advanced by the State Co-operative Bank. Similar is the position in regard to the direct advances by the DCCs. Most of these activities are not evenly distributed among different districts/regions of the State. We examine later the regional location of such activities and the policy of the State Government in promoting and helping these units.

Agricultural Marketing

16.19. The Department of Co-operation is responsible for implementing the Agricultural Produce Market Act in the State under which regulated markets managed by Agricultural Produce Market Committees are set up in all districts. Table 16.8 gives the number of principal market yards and sub-yards in each district. It also gives the total quantity of certain important crops sold in these regulated market yards as percentage of the total quantity of the crop produced in the district. It would have been more appropriate to express the quantity of the crop sold in the regulated market as a percentage of the total marketed surplus of the produce in the district. But the data on marketed surplus are not available. The percentage figures in the Table are in some case more-much more-than 100. It is possible that the sales in a regulated market was brought from a wider area than the district where the market was located.

16.20. It will be seen that there are considerable differences between the districts both in respect of number of yards/sub-yards and the quantum of agricultural produce marketed therein. To create a more suitable environment for greater use of such markets, greater agricultural development would be necessary, while at the same time it can be a consequence of such facility.

16.21. While the Regulated Agriculture Produce Markets provide facilities for orderly and competitive marketing the Taluka Sale Purchase Unions, a co-operative marketing organisation of farmers, are expected to help in marketing the produce of the farmers as well as buying their requirements for them. In June 1983, there were 483 Co-operative Marketing Societies in the State. Out of these, one was the State Marketing Federation; there were 24 Central Purchase and Sale Societies, one in each district except in Greater Bombay, Solapur, Jalna, Osmanabad, Yavatmal, Wardha and Gadchiroli (Nagpur had 2); there were 32 Cotton Marketing Societies (23 in Vidarbha and 10 in Khadesh districts) which had ceased to be effective because of monopoly marketings of cotton by the Marketing Federation; 84 Fruit and Vegetable Marketing Societies, 66 of which were in Western Maharashtra, mainly in Jalgaon, Dhule, and Nashik districts; three Arecanut Marketing Societies; three Sugarcane Marketing Societies in Ahmednagar, Aurangabad and Wardha districts; 24 other specialised marketing societies and 305 Taluka Sale Purchase Unions.

16.22. Except in Kolhapur, the district marketing societies were more or less dormant. In fact, the Kolhapur district

Table 16.8

Regulated Agricultural Produce Market Yards / Sub Yards, and the Percentage of the Total Production of Selected Crops Sold in Them

District	Number of <u>Percentage of Arrivals of Crops in them in 1981-82</u> Yards/Sub- Yards (as on 30-9-1983)									
	1	2	3	4	5	6	7	8	9	10
1.Gr.Bombay	6	-	-	-	-	-	-	-	-	-
2.Thane	13	3	-	-	-	-	-	-	-	-
3.Raigad	31	14	-	-	-	-	-	-	-	-
4.Ratnagiri	-	-	-	-	-	-	-	-	-	-
<u>KONKAN</u>										
(excl. G.B.)	44	17	-	-	-	-	-	-	-	-
5.Nashik	35	20	40	20	19	8	58	3	13	
6.Dhule	26	2	40	56	18	16	68	8	11	
7.Jalgaon	30	7	104	41	38	80	45	13	3	
8.Ahmednagar	36	2	35	22	17	16	105	2	44	
9.Pune	43	2	74	21	26	4	14	22	167	
10.Satara	30	7	8	23	5	7	3	15	44	
11.Sangli	16	-	32	20	6	365	23	29	33	
12.Solapur	24	64	35	20	25	25	53	16	68	
13.Kolhapur	21	1	145	2	1	1	48	18	46	
<u>WESTERN</u>										
<u>MAHARASHTRA</u>	<u>271</u>	<u>-</u>	<u>47</u>	<u>26</u>	<u>21</u>	<u>61</u>	<u>40</u>	<u>14</u>	<u>43</u>	
14.Aurangabad	43	502	29	21	10	18	34	17	23	
15.Parbhani	36	10	15	9	103	1	75	12	-	
16.Beed	20	21	12	17	38	2	68	5	1	
17.Nanded	38	22	5	1	12	-	15	2	33	
18.Osmanabad	18	3	6	7	27	1	8	1	-	
<u>MARATHWADA</u>	<u>155</u>	<u>27</u>	<u>11</u>	<u>9</u>	<u>18</u>	<u>8</u>	<u>27</u>	<u>8</u>	<u>18</u>	
19.Buldhana	26	5	21	11	23	1,400	28	24	27	
20.Akola	24	23	29	13	24	5	43	4	-	
21.Amravati	21	2	18	4	3	-	28	67	25	
22.Yavatmal	21	6	11	2	15	-	40	-	270	
23.Wardha	13	-	3	2	6	-	4	-	-	
24.Nagpur	17	15	15	4	-	-	42	-	180	
25.Bhandara	15	12	25	111	-	-	17	45	106	
26.Chandrapur	24	37	4	6	-	-	-	-	5	
<u>VIDARBHA</u>	<u>161</u>	<u>16</u>	<u>16</u>	<u>7</u>	<u>17</u>	<u>316</u>	<u>31</u>	<u>19</u>	<u>49</u>	
<u>MAHARASHTRA</u>	<u>637</u>									
<u>MAHARASHTRA</u>										
(excl. G.B.)	631	8	28	15	20	73	31	13	39	

marketing society accounted for 80 per cent of the business of all the district marketing societies in 1981-82.

16.23. Table 16.9 gives the districtwise number of and sales by the Taluka Sale Purchase Unions in 1981-82. It will be noticed that in almost all talukas the Unions were engaged mainly in selling farm requisites, mainly fertilizers and to a certain extent seeds and consumer goods, rather than in marketing the produce of the farmers.

Agricultural Processing :

16.24. Attention may now be turned to the co-operative processing/manufacturing units in the State. Processing of a number of farm commodities is done in the Co-operative Sector: sugarcane, cotton, oilseeds, paddy, etc. Naturally, they are located in the main producing districts. In 1981-82 there were 100 co-operative rice mills in the State; 41 of them were in Konkan, mainly in Raigad and Thane Districts, and 46 were in Vidarbha, mainly in Bhandara and Chandrapur districts.

16.25. There were 16 Co-operative Oil Mills in the State in 1981-82, four in Western Maharashtra, five in Marathwada (3 in Beed, and one each in Nanded and Osmanabad) and seven in Vidarbha (in Akola, Yavatmal, Nagpur and Bhandara). Out of these 16, however, only four were in production in 1981-82, two in Bhandara, one in Akola and one in Sangli district.

Co-operative Sugar Factories :

16.26. The most important co-operative processing in the State is of course the co-operative sugar factories. In Table 16.10 is given the districtwise number of co-operative sugar factories. It will be seen that, as on 30-9-1983, there were 88 co-operative sugar factories in the State; 14 of these were under construction and 7 were defunct. Thus there were 67 sugar factories in operation; of these 50 were in Western Maharashtra, 15 in Marathwada and 2 in Vidarbha. Of the 67 factories in operation, 19 were sick units. In Table 16.11, are given some operational details of the factories in operation.

16.27. From the beginning the State Government has given strong financial, administrative and political support to the co-operative sugar factories. The financial support has come in the form of contribution to their share capital. In the early period between 1950 to 1960, the total project cost of sugar factories was between Rs. 70 to Rs. 90 lakh. The Government share capital contribution during this period was Rs. 10 lakh per factory. The total Government share capital before the first five year plan was Rs. 6 lakh in 1950-51. In the First Five Year Plan i.e. 1951-52 to 1955-56, the total expenditure was Rs. 121 lakh. In the Second Plan period i.e. 1956-57 to 1960-61, it was Rs. 90 lakh. In 1960-61, as the project cost of a sugar factory increased to about Rs. 160 lakh, the State Government's share capital contribution was increased from Rs. 10 lakh to Rs. 15

Table 16.9

Sales of Taluka Sale Purchase Unions in 1981-82

(Rs Lakh)

District	Number of Societies	Sales of Agricultural Produce	Sales of Agricultural Requisites	Sales of Consumer Goods
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	5	-	8	118
3. Raigad	10	5	27	70
4. Ratnagiri	14	-	124	298
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>29</u>	<u>5</u>	<u>159</u>	<u>486</u>
5. Nashik	16	-	583	95
6. Dhule	14	35	626	168
7. Jalgaon	16	848	848	135
8. Ahmednagar	13	-	1,119	551
9. Pune	15	19	187	172
10. Satara	9	10	512	277
11. Sangli	9	-	144	208
12. Solapur	15	6	164	170
13. Kolhapur	11	7	891	517
<u>WESTERN MAHARASHTRA</u>	<u>118</u>	<u>925</u>	<u>5,074</u>	<u>2,293</u>
14. Aurangabad	13	138	570	143
15. Parbhani	8	40	37	12
16. Beed	7	5	98	65
17. Nanded	9	196	615	227
18. Osmanabad	10	11	89	101
<u>MARATHWADA</u>	<u>47</u>	<u>390</u>	<u>1,409</u>	<u>548</u>
19. Buldhana	14	312	618	146
20. Akola	14	1,033	984	201
21. Amravati	13	7	298	155
22. Yavatmal	14	67	578	170
23. Wardha	7	46	206	137
24. Nagpur	13	-	256	191
25. Bhandara	12	9	258	118
26. Chandrapur	17	22	177	208
<u>VIDARBHA</u>	<u>104</u>	<u>1,496</u>	<u>3,375</u>	<u>1,326</u>
<u>MAHARASHTRA STATE</u>				
<u>MAHARASHTRA STATE</u>	<u>298</u>	<u>2,815</u>	<u>10,017</u>	<u>4,653</u>
<u>(excl. G.B.)</u>	<u>298</u>	<u>2,815</u>	<u>10,017</u>	<u>4,653</u>

Table 16.10

Number of Cooperative Sugar Factories in Maharashtra
on 30-9-1983

District	Total Number of Sugar Factories	Under Con- struction	Defunct Factories	Factories in Operation	Sick Factories
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	1	-	1	-	-
<u>KONKAN (Excl G.B)</u>	<u>1</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>
5. Nashik	6	1	-	5	2
6. Dhule	4	2	-	2	1
7. Jalgaon	3	-	-	3	3
8. Ahmednagar	13	1	-	12	2
9. Pune	6	1	-	5	-
10. Solapur	8	1	2	5	1
11. Satara	7	4	-	3	1
12. Sangli	8	-	2	6	-
13. Kolhapur	12	1	2	9	-
<u>WESTERN MAHARASHTRA</u>	<u>67</u>	<u>11</u>	<u>6</u>	<u>50</u>	<u>10</u>
14. Aurangabad	6	1	-	5	3
15. Parbhani	3	-	-	3	1
16. Beed	4	1	-	3	2
17. Nanded	2	-	-	2	1
18. Osmanabad	3	1	-	2	-
<u>MARATHWADA</u>	<u>18</u>	<u>3</u>	<u>-</u>	<u>15</u>	<u>7</u>
19. Buldhana	1	-	-	1	1
20. Akola	-	-	-	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	1	-	-	1	1
23. Wardha	-	-	-	-	-
24. Nagpur	-	-	-	-	-
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>2</u>
<u>MAHARASHTRA STATE</u>	<u>88</u>	<u>14</u>	<u>7</u>	<u>67</u>	<u>19</u>
<u>MAHARASHTRA STATE</u>	<u>88</u>	<u>14</u>	<u>7</u>	<u>67</u>	<u>19</u>

lakh each. Co-operative sugar factories were given Government share capital contribution at this rate in 1960-61 and 1961-62. Thereafter no new licences were received for about five years, Hence in the Third Five Year Plan i.e., 1961-62 to 1965-66 the Government share capital contribution was only Rs. 26.75 lakh. In 1965-66, the project cost had gone up to about Rs. 220 lakh each. The pattern then existing was as follows :

1. Members' share capital	Rs. 45 lakh
2. Government share capital,	Rs. 25 lakh
3. Long term & Medium term loan	Rs. 150 lakh

Total	Rs. 220 lakh

During the three annual plan years, i.e., 1966-67, 1967-68, and 1968-69, the Government share capital contribution was Rs. 70 lakh, Rs.50 lakh and Rs.95 lakh respectively on the above pattern.

16.28. In 1969, the Industrial Finance Corporation of India, which from the beginning had helped with substantial term loans, indicated its inability to give any financial assistance to the new co-operative sugar factories due to paucity of funds. New licences were also not being considered by the Government of India for units which were dependent upon the Industrial Finance Corporation of India and other Central Financial Institutions for long term loan. The State Government therefore decided to raise debentures from the cane cultivators and give loans to the new sugar factories from these amounts through the Maharashtra State Co-operative Bank. It also decided to increase the Government contribution to Rs. 35 lakh for each of the factory and the following pattern was approved from April 1969.

1. Members' share capital	Rs. 65.00 lakh
2. Government share capital,	Rs. 35.00 lakh
3. Loan from Maharashtra State Co-operative Bank by raising debentures	Rs. 120.00 lakh

Total	Rs. 220.00 lakh

16.29. In July 1970, in view of the further increase in the project cost, the National Cooperative Development Corporation suggested a revision of the pattern of Government share capital to co-operative sugar factories on the basis of units in developed areas and under-developed areas. After considering the above suggestion of the National Cooperative Development Corporation, the State Government in March 1972 decided to increase its share capital to Rs. 45 lakh for cooperative sugar factories in developed areas and to Rs. 60 lakh for those in under-developed areas. The following pattern was approved for raising of the funds.

Table 16.11

Total Share Capital, Reserve Fund, Non-Refundable
Deposits (NRD) of Members and Government Contribution
to Share Capital and Loans of Cooperative Sugar Mills
(as on 30-9-1981) (Rs Lakh)

District	Total Share Capital	Total Reserve Fund	Total Non- Refundable Deposits	Total Cols (2) +(3)+(4)
1	2	3	4	5
1. Greater Bombay	-	-	-	-
2. Thane	-	-	-	-
3. Raigad	-	-	-	-
4. Ratnagiri	12.00	2.00	-	14.00
<u>KONKAN (Excl G.B.)</u>	<u>12.00</u>	<u>2.00</u>	<u>-</u>	<u>14.00</u>
5. Nashik	743.00	1,303.00	373.00	2,419.00
6. Dhule	295.00	455.00	296.00	1,046.00
7. Jalgaon	634.00	736.00	181.00	1,551.00
8. Ahmednagar	1,333.00	3,537.00	1,477.00	6,347.00
9. Pune	528.00	966.00	506.00	2,000.00
10. Satara	634.00	1,010.00	750.00	2,394.00
11. Sangli	454.00	1,470.00	684.00	2,608.00
12. Solapur	900.00	918.00	325.00	2,143.00
13. Kolhapur	1,324.00	3,834.00	1,482.00	6,640.00
<u>WESTERN MAHARASHTRA</u>	<u>6,845.00</u>	<u>14,229.00</u>	<u>6,070.00</u>	<u>27,148.00</u>
14. Aurangabad	692.00	243.00	130.00	1,065.00
15. Parbhani	562.00	513.00	31.00	1,106.00
16. Beed	569.00	476.00	68.00	1,113.00
17. Nanded	277.00	250.00	49.00	576.00
18. Osmanabad	243.00	575.00	177.00	995.00
<u>MARATHWADA</u>	<u>2,343.00</u>	<u>2,057.00</u>	<u>455.00</u>	<u>4,855.00</u>
19. Buldhana	123.00	120.00	7.00	250.00
20. Akola	-	-	-	-
21. Amravati	-	-	-	-
22. Yavatmal	120.00	153.00	30.00	303.00
23. Wardha	-	-	-	-
24. Nagpur	-	-	-	-
25. Bhandara	-	-	-	-
26. Chandrapur	-	-	-	-
<u>VIDARBHA</u>	<u>243.00</u>	<u>273.00</u>	<u>37.00</u>	<u>553.00</u>
<u>MAHARASHTRA STATE</u>	<u>9,443.00</u>	<u>16,561.00</u>	<u>6,562.00</u>	<u>32,570.00</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>9,443.00</u>	<u>16,561.00</u>	<u>6,562.00</u>	<u>32,570.00</u>

(Contd.)

Table 16.11 (Concl'd)

Total Share Capital, Reserve Fund, Non-Refundable
Deposits (NRD) of Members and Government Contribution
to Share Capital and Loans of Cooperative Sugar Mills
(as on 30-9-1981) (Rs Lakh)

District	Of Which Government Share Capital	Col (6) as Percentage to Col (2)	Col (6) as Percentage to Col (5)	Outst- standing Term Loans	Government Loans Outstanding on April 1, 1981
1	6	7	8	9	10
1. Greater Bombay	-	-	-	-	-
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	6.00	50.00	42.86	14.00	4.00
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	<u>6.00</u>	<u>50.00</u>	<u>42.86</u>	<u>14.00</u>	<u>4.00</u>
5. Nashik	350.00	47.11	14.47	998.00	102.00
6. Dhule	70.00	23.73	6.69	216.00	179.00
7. Jalgaon	385.00	60.73	24.82	973.00	78.00
8. Ahmednagar	428.00	32.11	6.74	1,014.00	673.00
9. Pune	198.00	37.50	9.90	94.00	109.00
10. Satara	215.00	33.91	9.98	416.00	416.00
11. Sangli	80.00	17.62	3.07	225.00	209.00
12. Solapur	552.00	61.33	25.76	1,120.00	952.00
13. Kolhapur	485.00	36.63	7.30	1,662.00	320.00
<u>WESTERN MAHARASHTRA</u>	<u>2,763.00</u>	<u>40.37</u>	<u>10.18</u>	<u>6,718.00</u>	<u>3,038.00</u>
14. Aurangabad	482.00	69.65	45.16	435.00	416.00
15. Parbhani	485.00	86.29	43.85	447.00	722.00
16. Beed	384.00	67.49	34.50	1,009.00	207.00
17. Nanded	188.00	67.87	32.47	73.00	422.00
18. Osmanabad	85.00	34.98	8.54	166.00	105.00
<u>MARATHWADA</u>	<u>1,624.00</u>	<u>69.31</u>	<u>33.43</u>	<u>2,130.00</u>	<u>1,872.00</u>
19. Buldhana	60.00	48.78	24.00	164.00	242.00
20. Akola	-	-	-	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	60.00	50.00	19.80	162.00	74.00
23. Wardha	-	-	-	-	-
24. Nagpur	-	-	-	-	-
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>120.00</u>	<u>49.38</u>	<u>21.70</u>	<u>326.00</u>	<u>312.00</u>
<u>MAHARASHTRA STATE</u>	<u>4,513.00</u>	<u>47.79</u>	<u>13.86</u>	<u>9,188.00</u>	<u>5,226.00</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>4,513.00</u>	<u>47.79</u>	<u>13.86</u>	<u>9,188.00</u>	<u>5,226.00</u>

Sugar Factories in

	<u>Areas other than under-developed areas</u>	<u>Areas in under- developed areas</u>
	(Rs.lakh)	(Rs.lakh)
1. Members' share capital	75.00	60.00
2. Government share capital	45.00	60.00
3. Block loan from IFCI or any other agency.	150.00	150.00
Total	Rs. 270.00	270.00

In the Fourth plan i.e. between 1969-70 to 1973-74, the total Government share capital contribution was Rs. 811.68 lakh.

16.30. For purposes of share participation in share capital of the co-operative sugar factories, the Government has declared the following as industrially developed regions of the State; Greater Bombay; talukas of Thane, Panvel, Alibag, Karjat, Khanapur and Pen; Pune City and Pune metropolitan area; Karveer taluka of Kolhapur district; Nashik taluka of Nashik district; Aurangabad taluka of Aurangabad district. All other talukas or parts of talukas are declared as industrially undeveloped for the purpose.

16.31. In 1973-74, there was considerable increase in the price of machinery and the new project cost of a sugar factory was estimated at Rs. 450 lakh. In view of this, the Government share capital contribution was increased to Rs. 80 lakh in developed areas and Rs. 100 lakh in under-developed areas. The following revised pattern for raising of the funds was approved by the Government in 1975.

	<u>Developed areas</u>	<u>Under-developed areas</u>
	(Rs. Lakh)	(Rs.Lakh)
1. Government share capital	80.00	100.00
2. Members' share capital	80.00	60.00
3. Block loans	290.00	290.00
Total	Rs. 450.00	450.00

16.32. At the same time, in 1974-75, in view of further

increase in the project cost, the National Cooperative Development Corporation formulated a scheme to provide financial assistance to the State Government for increase in the share capital contribution to cooperative sugar factories. This assistance was given in those cases where the project cost was higher than Rs. 300 lakh and was limited to the portion of the State Government's contribution which exceeded Rs. 70 lakh. Of this excess portion, the National Cooperative Development Corporation gave 50% in developed areas and upto 65% in under-developed areas.

16.33. In the meantime, the cost of plant and machinery shot up considerably and the new project cost was estimated at about Rs. 6 crore to Rs. 6.50 crore. The Industrial Finance Corporation of India and other Central Financing Institutions provided loan only upto 65%, and so 35% had to come through equity, i.e., Government share capital plus members' share capital. This issue was discussed in detail by a Cabinet Sub-Committee and it was decided that the member's share capital contribution should be limited to Rs. 60 lakh in underdeveloped areas and Rs. 80 lakh in developed areas or 10% of the project cost whichever is more. The remaining part of the equity was to be borne by the State Government with the National Development Corporation's assistance. On the basis of this revised pattern, the resources for a project cost of Rs. 6 crore would be as follows :

	<u>Developed</u> <u>areas</u>	<u>Under-developed</u> <u>areas</u>
	(Rs. lakh)	(Rs. lakh)
1. Members' share capital	80.00	60.00
2. Government share capital	100.00	98.00
3. N.C.D.C. assistance	30.00	52.00
4. Long term loan	390.00	390.00
Total	Rs. 600.00	600.00
	*****	*****

16.34. In view of further increase in the project cost to about Rs. 950 lakh, a part of the share capital contributed by the State Government is given by the Central Government under Central Sector Scheme formulated by the National Cooperative Development Corporation (NCDC). As per the scheme, the State Government has to give a minimum share capital of Rs. 70 lakh and any amount given in excess of this is partly reimbursed by the NCDC as loan to the State Government upto 50% in developed area and 65% in under-developed area. The debt equity is now revised from 65:35 to 60:40 and the revised pattern for financing the project cost of Rs. 950 lakh is as under :

Table 16.12

Cooperative Sugar Factories: Sugarcane Crushed and Rate of Recovery

District	Number of Cooperative Factories in Operation	Cane Crushed Per Factory ('000 tonnes)	Recovery of Sugar (per cent)	Percentage of Sugar-cane Crushed by Factories	Percentage of Sugar-cane From Outside
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	-
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	1	-	-	-	-
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
5. Nashik	5	282.20	11.26	69.29	16.86
6. Dhule	2	378.80	10.20	81.80	1.98
7. Jalgaon	3	307.20	9.65	106.15	2.28
8. Ahmednagar	12	415.30	10.94	81.90	19.33
9. Pune	5	360.50	11.12	64.38	16.14
10. Satara	5	462.40	11.61	126.99	20.71
11. Sangli	3	609.80	11.48	68.57	9.20
12. Solapur	6	354.80	10.52	76.56	17.52
13. Kolhapur	9	468.70	11.74	85.39	18.52
<u>WESTERN MAHARASHTRA</u>	<u>50</u>	<u>407.90</u>	<u>11.19</u>	<u>-</u>	<u>-</u>
14. Aurangabad	5	233.70	10.53	73.39	7.79
15. Parbhani	3	202.30	10.45	125.70	32.45
16. Beed	3	276.70	9.87	98.76	12.65
17. Nanded	2	235.60	9.50	59.19	6.37
18. Osmanabad	2	321.35	10.39	36.11	-
<u>MARATHWADA</u>	<u>15</u>	<u>248.00</u>	<u>10.20</u>	<u>81.43</u>	<u>11.38</u>
19. Buldhana	1	164.20	9.13	92.14	8.54
20. Akola	-	-	-	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	1	289.40	10.30	97.44	11.76
23. Wardha	-	-	-	-	-
24. Nagpur	-	-	-	-	-
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>2</u>	<u>226.80</u>	<u>9.87</u>	<u>85.88</u>	<u>11.60</u>
<u>MAHARASHTRA STATE</u>	<u>67</u>	<u>366.70</u>	<u>10.97</u>	<u>77.55</u>	<u>15.49</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>67</u>	<u>366.70</u>	<u>10.97</u>	<u>77.55</u>	<u>15.49</u>

(Rs. Lakh)

<u>Particulars</u>	<u>Under-developed areas</u>	<u>Developed areas</u>
1. (A) <u>Equity capital(40%)</u>		
i) Members' share capital	95.00 (10 %)	142.50 (15%)
ii) State Government share capital	176.13)) 30%	153.75)) 25%
iii) N.C.D.C. assistance	108.87)	83.75)
	285.00	237.50
Total (A)	380.00	380.00
(B) Long term loan 60% from IFCI, IDBI and ICICI	570.00	570.00
Total (A)+ (B)	950.00	950.00

16.35. The share capital given to the Cooperative Sugar Factories is expected to be redeemed by them after the complete repayment of long term loan from financial institutions. Uptil now, the following Cooperative Sugar Factories viz. (1) Pravara (2) Kopargaon, (3) Rahuri, (4) Krishna, (5) Girna, (6) Warna, (7) Panchganga and (8) Shetkari Sangli have completely redeemed the Government Share Capital and the following factories viz. (1) Malegaon, (2) Chhatrapati, Pune (3) Niphad, (4) Bhogawati (Kolhapur) and (5) Kumbhi Kasari are having only the marginal balance of Rs. 1 lakh as Government share capital contribution to them. The other factories will be repaying the Government share capital after they completely repay the long term loans from financial institutions.

Co-operative Spinning Mills

16.36. Besides co-operative sugar factories, the other important processing or manufacturing units in the cooperative sector are the co-operative spinning mills. In 1982-83, there were 21 registered cooperative spinning mills in operation with 22 plants, one mill having two plants, one in Solapur and another in Bhore (in Pune district). Fourteen of these 21 mills have growers of cotton as members, while in case of the remaining seven the weavers, powerloom or handloom, are members. The districtwise distribution of these 21 mills, with 22 units, is given below :

Table 16.13

District/ (Mill)	Cooperative Spinning Mills			(Rs. Lakh)	
	Total Share Capital (1982-83)	Total Share Contribution by Govern- ment (June 30, 1982)	Col (3) as Percentage of Col (2)	Total Term Loan Out- standing (1982-83)	
1	2	3	4	5	
1. Greater Bombay	-	-	-	-	-
2. Thane (1)	116.65	71.00	60.87	138.86	
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (Excl G.B.) (1)</u>	<u>116.65</u>	<u>71.00</u>	<u>60.87</u>	<u>138.86</u>	
5. Nashik (1)	68.73	37.43	54.46	122.48	
(2)	140.78	112.18	79.68	154.19	
6. Dhule	-	-	-	-	-
7. Jalgaon (1)	47.23	31.00	65.64	89.90	
(2)	81.47	53.54	65.72	54.74	
8. Ahmednagar (1)	65.14	43.35	66.55	63.68	
(2)	66.95	43.05	64.30	114.86	
9. Pune (1)	77.61	53.24	68.60	nll	
10. Satara	-	-	-	-	-
11. Sangli (1)	81.64	61.99	75.93	43.92	
12. Solapur (1)	198.40	39.99	20.16	89.38	
(2)	120.47	70.13	58.21	125.34	
13. Kolhapur (1)	148.71	43.62	29.33	258.69	
(2)	72.68	22.80	31.37	350.03	
(3)	278.48	112.00	40.22	444.66	
<u>WESTERN MAHARASHTRA (13)</u>	<u>1,448.29</u>	<u>724.32</u>	<u>50.01</u>	<u>1,911.87</u>	
14. Aurangabad (1)	45.52	33.56	73.89	155.60	
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded (1)	56.36	37.63	66.77	124.74	
18. Osmanabad (1)	119.28	75.46	63.26	412.16	
<u>MARATHWADA (3)</u>	<u>221.06</u>	<u>146.65</u>	<u>66.34</u>	<u>693.50</u>	
19. Buldhana	-	-	-	-	-
20. Akola (1)	81.35	53.10	65.27	93.80	
21. Amravati (1)	82.99	57.08	68.78	74.17	
22. Yavatmal (1)	52.58	36.41	69.25	100.16	
(2)	136.71	79.33	58.03	116.97	
23. Wardha	-	-	-	-	-
24. Nagpur (1)	105.17	47.28	44.96	24.05	
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA (5)</u>	<u>458.80</u>	<u>273.20</u>	<u>59.55</u>	<u>409.15</u>	
<u>MAHARASHTRA STATE</u>	<u>2,244.80</u>	<u>1,215.17</u>	<u>54.13</u>	<u>3,153.38</u>	
<u>MAHARASHTRA STATE (excl. G.B.) (22)</u>	<u>2,244.80</u>	<u>1,215.17</u>	<u>54.13</u>	<u>3,153.38</u>	

1.	Thane	1	9.	Aurangabad	1
	<u>Konkan</u>	<u>1</u>	10.	Nanded	1
2.	Nashik	2	11.	Latur	1
3.	Jalgaon	2		<u>Marathwada</u>	<u>3</u>
4.	Ahmednagar	2	12.	Akola	1
5.	Pune	1*	13.	Amravati	1
6.	Sangli	1	14.	Yavatmal	2
7.	Solapur	2*	15.	Nagpur	1
8.	Kolhapur	3		<u>Vidarbha</u>	<u>5</u>
	<u>Western Maharashtra</u>	<u>13</u>		<u>Total</u>	<u>22</u>

* The mill in Pune district and one of the two mills in Solapur are only two producing units of the same registered co-operative spinning mills.

16.37. As in the case of co-operative sugar factories, the State Government has contributed substantially to the share capital of the co-operative spinning mills. As a rule, the contribution of the Government has been in the ratio of 1:9, that is to say while the members contribute 10 per cent of the share capital, the Government contributes the rest of 90 per cent. Of the Government's contribution, half is met by the NCDC in the form of a loan to the Government. The outstanding position regarding State participation in share capital and the total term loans of the mills in 1982-83 was as shown in Table 16.13. The State Government (including NCDC loans) accounted for 54.1 per cent of the total share capital of the mills; in Marathwada it was 66.3 per cent, and in Vidarbha it was 59.5 per cent, while in Western Maharashtra it was less than the State Average. However, in 9 of the 13 mills in Western Maharashtra the State participation in share capital was more than the State Average; it was so in the case of all the mills in Vidarbha, all but one mill in Marathwada, and in the only mill in Konkan.

16.38. In 1982-83, the State Government approved setting up 20 additional co-operative spinning mills. Out of these, the NCDC has so far approved 6 mills. In their case, the State participation in share capital, in the proportion of 1:9, has been assured. In the case of the remaining 14, in the absence of NCDC loan assurance, the State Government decided in 1983 to contribute to share capital in the ratio of 1:3, i.e. to subscribe to 75 per cent rather than 90 per cent of the share capital. Ten of these 30 mills are scheduled to come up in Vidarbha and four in Marathwada. Naturally, this caused considerable dissatisfaction in Vidarbha and Marathwada regions. The State Government has subsequently, in March 1984, revised its participation rate to 1:5, i.e., to 83.33 per cent.

16.39. The financial implications of these steps for the State Government may be exemplified as follows : The capital cost of a spinning mill with 35,000 spindles is expected to be Rs. 9 crore. Fifty per cent of this will be available as loan from public financial institutions, and the other fifty per cent from share capital. If the NCDC gives loans to the State

Government for the purpose, the State Government will buy shares worth Rs. 4.05 crore, to be shared half and half (Rs. 2.025 crore each). In case of absence of loan from NCDC, the State had decided in 1983 to bear 75 per cent of the share capital, i.e., Rs. 3.0375 crore per mill, or a total of Rs. 42.525 crore for the 14 mills. It would have meant an additional financial commitment of Rs. 14.175 crore. By further revising its participation rate upwards to 3.33 per cent, the State would have to contribute Rs. 3.375 crore per mill or Rs. 4.725 crore over the 1983 commitment. In fact, out of the total of Rs. 56.7 crore which the State would be required to contribute towards the share capital of these 14 mills, (with 50 per cent loan from NCDC) it has already committed to providing Rs. 47.25 crore, entirely from its own resources. The difference of Rs. 9.45 crore may be a large sum for the farmer members of these mills to raise. In view of the growers in Vidarbha and Marathwada being the major promoters in case of these 14 mills, it would appear discriminatory. In the opinion of the Committee, therefore, it would be desirable for the State Government to agree to subscribe to the share capital of these mills in the same proportion of 1:9 as before, irrespective of any N.C.D.C. loan becoming available to the State Government for the purpose.

16.40. The co-operative cotton mills so far have by and large proved loosing concerns. Except for the 3 mills in Kolhapur district, all the remaining 18 mills (19 units) in production, were in loss in 1982-83. The spinning mills are more difficult to operate than the sugar factories. The grower members do not produce all the types of cotton needed by the mills and the market for yarn is highly competitive and fluctuating. Labour required is somewhat more skilled and therefore absenteeism costs heavily. Power failure is more important here than in sugar mills. Greater attention at professional and skilled management is needed in their case.

16.41. In concluding this Chapter, we should mention a point strongly represented to us during our tour of Vidarbha and Marathwada districts. It was said that the sugar co-operatives have provided a solid base and a jumping ground for agricultural and rural development in Western Maharashtra; that, co-operative processing of cotton and oilseeds can conceivably provide a similar base for development in Vidarbha and Marathwada; and that, therefore, the State Government should provide the same kind of strong administrative, financial, and political support to cotton and oilseeds as it has given to sugarcane. We have much sympathy for this perception. We should add that marketing and processing of cotton and oilseeds are much more complex than the marketing and processing of sugarcane; and hence, to bring the former into the co-operative fold will require much more sustained effort and support.

CHAPTER XVII

PROCESS AND MECHANISM FOR REMOVING THE BACKLOG

17.1. In Chapters VI to XVI, we have examined a number of sectors/sub-sectors/schemes/programmes, assessed the districtwise backlog in each and estimated the cost of removing the backlog. In Annexure A., we have brought these estimated costs of backlog together. It will be noticed that for all districts, excluding Greater Bombay, they aggregate to Rs. 3,177.07 crore.

17.2. We must now turn to the crucial question of how this backlog may be removed. As explained in Chapter III, outlining our Approach, we prefer to suggest measures, as far as possible, within the present framework of Planning and Development in the State. District Planning is an integral part of the present planning in the State and obviously is most relevant to our purpose. It will be useful therefore to give a brief account of the same.

District Planning & Development Councils:

17.3. We have already referred to the intention of the State Government announced by the Chief Minister in the State Assembly on August 20, 1969, to adopt district as the primary unit of planning (para 2.13) and subsequent Resolution of the Government dated October 20, 1972, to constitute a District Planning Board in each district (para 3.2). Its actual implementation began in 1974-75 with the beginning of the Fifth Five Year Plan and the District Planning Boards came to be called District Planning and Development Councils (DPDCs). The objectives of District Planning were intended to be: (a) securing full development of the natural and other resource potential of the district; and (b) attaining parity in the matter of socio-economic infrastructure facilities over a period of 15 to 20 years so that inter-district disparities in levels of development are ironed out.

17.4. The DPDC has the functions of formulating the District Plan, monitoring the approved District Plan and bringing about coordination between various implementing agencies at the district level. It consists of representatives of the people from the District (MPs, MLAs and representatives of urban and rural local bodies). The designated Minister of the District is the Chairman of the DPDC and its Executive Committee. The Collector of the District is the Member-Secretary of the Executive Committee. The DPDC has to meet at least twice a year and its Executive Committee at least once a month, when progress of district level schemes is discussed.

17.5. The Panchayati Raj institutions are represented on the District Planning & Development Councils and their Executive Committees. The President of Zilla Parishad and the Chief

Executive Officer of Zilla Parishad are members of the DPDC and its Executive Committee, Special Executive Committee for Tribal Areas Sub-Plan and also of the small Committee which formulates the Annual Plan proposals of the District. Chairmen of the Taluka Panchayat Samitis are invited for District Planning and Development Council meetings at the time of the sanction of the District Plans by the DPDCs. The Chairman of the Social Welfare Committee of the Zilla Parishad and also the Chairmen of Taluka Panchayat Samitis falling in the area of operation of the Tribal Area Sub-Plan are the members of the Special Executive Committee for Tribal Area Sub-Plan.

17.6. As a preliminary to introducing district level planning the plan schemes in the Fifth Five Year Plan of the State Government were classified into (i) State level and (ii) District level schemes. The intention was to devolve upon the DPDCs about 60 per cent of the plan outlay of the State Government. With this in view, major irrigation and Package Scheme of Incentives for industries were classified as District level schemes. But, later in 1976-77, on practical considerations, these were reclassified as State level schemes. This brought down the proportion of district level schemes in the State's Plan to only about 40 per cent.

17.7. Over the years, it became clear that, of the schemes classified as District level schemes, the planning and funding of certain schemes has to be done at the State level. This happens when new plan schemes are introduced, or when centrally sponsored schemes are adopted on a sharing basis, or schemes for local benefits require funds larger than could be provided within the District allocations. Hence, each year, the outlays required for all such schemes are taken out of the purview of the DPDCs and constituted into what is called "State Level Pool Schemes" though the schemes continue to be classified as District level schemes. For instance in 1983-84, out of the total District Plan allocation of Rs. 646.65 crore, State Pool Schemes amounted to Rs. 190.75 crore. i.e. 29.5 per cent of the total entitlement of the District Level Schemes. As a consequence, the plan funds actually devolved upon the DPDCs were further reduced to only about 30 to 32 per cent of the State Plan expenditure.

17.8. In 1973, while formulating the Fifth Plan of the State Government, a formula was evolved for allocation of funds to the districts for planning at the district level. Subsequently, in 1975, this was slightly modified. In the following we give the original formula and, side by side, the revised formula:

	<u>Percentage weights</u>	
	<u>Original formula</u>	<u>Revised formula</u>
1. Population	60	60
2. Backward Class population (SC/ST/Nav-Baudhas)	5	5

3. Urban population	5	5
4. Agricultural Backwardness	5	5
5. Communications Backwardness	5	5
6. Irrigation Backwardness	5	4
7. Industrial Backwardness	5	5
8. Coastal Districts	1.5	1.5
9. Drought-prone Areas	2	3
10. Forest Areas	1.5	1.5
11. Reserved at the State level for special problems	5	5
	-----	-----
	100	100

In the above, Agricultural Backwardness is measured by the geometric mean of value added from agriculture per hectare and per agricultural worker; and backwardness in communications is measured by the geometric mean of road and rail mileage per 100 sq.km. and per lakh of population.

17.9. Experience has shown that about 40 per cent of the State's Plan Outlays are spent on district level schemes. Therefore, 40 per cent allocations out of the State's Annual Plan Outlays are set aside for district level schemes. Out of this, the amount required for State Pool Schemes is deducted and only the balance is distributed among the districts as per the formula mentioned above.

17.10, The total Annual Plan Outlay to be distributed among the districts according to the formula is divided into the 11 components as shown above in proportion to their respective weights and each component is distributed among the districts in proportion to the respective factor or indicator. Thus 60 per cent of the Plan Outlays to be distributed is allocated to the districts in proportion to their total population; 5 per cent is allocated in proportion to the SC/ST/Nav Boudha population; 5 per cent in proportion to the urban population, etc. As all the factors, except population and urban population, are indicators of backwardness, the relatively underdeveloped districts get a somewhat larger allocation than they would if allocations were made entirely on the basis of population.

17.11. The outlays on the State Pool Schemes are distributed between districts as required by each particular scheme and not by any formula. In consequence, some districts get a larger share and some a smaller share than they would if even the outlays on the State Pool Schemes were distributed according to the above formula. This is partially corrected as follows: While calculating the ceilings for the districts, the actual expenditure in the districts on all District Level Schemes including State Pool Schemes in the previous year is taken into account. Based on the actual expenditure, "deemed allocations" are worked out and any amount spent in excess is taken into consideration while working out the ceilings for the subsequent year. It may be noted that only 30 per cent of the excess expenditure or shortage is adjusted while calculating the

ceilings. Thus, the adjustment corrects only partially the deviations from formula in district allocations caused by the State Pool Schemes.

17.12. After the ceilings for the Annual Plans are communicated to the districts, they are free to prepare the District Annual Plans and suggest schemes they desire to incorporate in the District Plan. However, while doing so, they have to take into account the guidelines issued by the State Government for preparation of schemes under the several sectors. This is unavoidable because even the State Government has to abide by the guidelines given by the Government of India in this respect. The State Government has to prepare its Annual Plan within the framework prescribed by the Government of India and, therefore, cannot give full liberty to the districts in preparing their Annual Plans. Hence, the DPDCs are required to prepare the Draft District Plans within the ceilings communicated by the State Government, following general guidelines issued by Planning Department as also sectoral guidelines given by respective Administrative Departments. Discussions with the DPDCs are expected to be held at the State level for finalisation of District Plans. Then the District Plans are dovetailed in the State Plan. Unfortunately, we understand, for various reasons, the procedure has not worked effectively in the past four years, 1980-81 to 1983-84. It was revived recently while preparing the Annual Plan for 1984-85.

17.13. The DPDCs have authority to reallocate plan funds as a result of monthly monitoring of development programmes. For this purpose, the DPDCs are given powers of reappropriation of savings in the budgetted outlays for the district level schemes, and it is incumbent on the District Officers that they would give effect to such decisions of the DPDC through the formulation of Revised Estimates as required by the Budget Manual. This ensures that funds meant for a district are utilised within the district. These reappropriations require formal sanction of the Government. Experience shows that over 90% of the proposals are approved by the Government without change. The powers of the DPDCs to review, monitor and reappropriate are regarded important features of district planning in Maharashtra.

17.14. Broadly within this framework of Planning in the State, we shall now consider how a process for removing the present backlog in the districts lagging behind may be initiated and suggest a financial mechanism for the same.

Coverage of Sectors/Sub-sectors/etc. examined:

17.15. It will be recalled that we have selected a number of sectors/sub-sectors/schemes/programmes to examine the regional disparities in development and have assessed the corresponding backlogs of the districts lagging behind. To initiate a process for removing the backlog in the several sectors/sub-sectors/schemes/programmes, we must draw upon plan funds or, more specifically approved outlays on the corresponding Plan Schemes.

Hoping our proposals will be given effect at the earliest, we shall illustrate them with reference to the Annual Plan 1983-84.

17.16. In Annexure B we give a list of the Plan Schemes relevant to the removal of backlog in each of the several sectors/sub-sectors/schemes/programmes examined by us. Against each is shown the approved outlay for the Sixth Five Year Plan (1980-85) and the Annual Plan 1983-84. In Table 17.1. the schemewise outlays in the Annual Plan 1983-84 are classified into three categories: (a) State Level Schemes, (b) District Level Schemes in the State Pool, and (c) Other District Level Schemes. In the following, we summarise the position in relation to the Annual Plan 1983-84:

Annual Plan 1983-84 : Approved Outlay (Rs. Lakh)

	<u>All Schemes</u>	<u>Schemes examined by us</u>
State Level Schemes	85,334.78	25,381.38
District Level Schemes in the State Pool	19,075.00	6,373.50
Other District Level Schemes	45,590.22	28,931.69
	-----	-----
<u>Total</u>	150,000.00	60,686.57
	-----	-----

17.17 We may note that the Maharashtra State Electricity Board finances a substantial portion of its rural electrification and energisation of agricultural pump-sets programme from resources outside the Plan, almost as large as the resources within the Plan. These are naturally not shown above in the Plan outlays. But, our comments in the following apply equally to them.

State Pool for Removal of Specific Backlog:

17.18. We suggest that the Approved Outlay on the Schemes examined by us and hence relevant to removal of the specific backlog should be constituted into what we may call the "State Pool for Removal of Specific Backlog". The approved outlay for the Annual Plan 1983-84 is then broken up as under:

	<u>Annual Plan 1983-84</u> <u>Approved Outlay: Rs. lakh</u>
State Pool for Removal of Specific Backlog	60,686.57
Balance of State Level Schemes	59,953.40
Balance of State Pool of District Level Schemes	12,701.50
Balance of other District Level Schemes	16,658.53

<u>Total</u>	150,000.00

Table 17.1
Approved Outlays in Annual Plan 1983-84
Relevant to Schemes Examined for Removal of Backlog (Rs.Lakh)

Sub-Sectors/ Items Relevant to Backlog	On State Level Schemes	On State Level Pool Schemes	On District Level Schemes	Total
1	2	3	4	5
1.Road Development	1,482.00	549.50	3,297.50	5,329.00
2.Minor Irrigation (State & Local Sectors)	-	-	3,550.00	3,550.00
3.Medium Irrigation & Flood Control	-	2,109.00	3,684.30	5,793.30
4.Major Irrigation	22,731.00	-	-	22,731.00
5.Rural Electrification	-	1,368.00	2,932.00	4,300.00
6.Primary Education	-	-	557.78	557.78
7.Secondary Education	-	-	1,507.01	1,507.01
8.Pre-University & University Education	-	-	404.00	404.00
9.Adult Education	-	-	96.40	96.40
10.Industrial Training Institutes	-	-	285.27	285.27
11.Tecnical High Schools/ Centres	-	-	64.00	64.00
12.Tecnical Training in Higher Secondary School	-	-	7.00	7.00
13.Vocational Courses (+ 2 Stage)	-	-	91.75	91.75
14.Polytechnics	179.42	-	-	179.42
15.Primary Health Sub-Centres	-	-	214.18	214.18
16.Primary Health Centres	-	-	658.69	658.69
17.Rural Hospitals/ Cottage Hospitals	-	-	372.88	372.88
18.Hospital Beds	-	-	209.28	209.28
19.Water Supply (exclu- ding Corporation areas)	-	2,347.00	6,594.00	8,941.00
20.CADA Works	988.96	-	-	988.96
21.Land Development under Irrigation Projects in non-CADA areas	-	-	799.82	799.82
22.Contour Bunding	-	-	713.71	713.71
23.Terracing	-	-	456.94	456.94
24.Nala Bunding	-	-	1,935.97	1,935.97
25.Land Development-cum- Horticultural Development	-	-	238.73	238.73
26.Animal Husbundry	-	-	260.48	260.48
TOTAL	25,381.38	6,373.50	28,931.69	60,686.57

17.19. The expenditure of the approved outlay on the Balance of State Level Schemes (Rs.59,953.40 lakh) may remain at the discretion of the State Government as at present. The same should apply to the Balance of the State Pool of the District Level Schemes (Rs.12,701.50 lakh). Regarding the Balance of District Level Schemes (Rs.16,658.53 lakh), we suggest that the allocation of the approved outlay to different districts may be done according to the present formula slightly modified. In the following, we show the percentage weights to different factors assigned in the present formula and the modification we suggest:

	<u>Percentage Weights</u>	
	<u>Present formula</u>	<u>Modified formula</u>
1. Population	60	70
2. Backward Class population (SC/ST/Nav-Baudhas)	5	5
3. Urban Population	5	5
4. Agricultural Backwardness	5	5
5. Communications Backwardness	5	-
6. Irrigation Backwardness	4	-
7. Industrial Backwardness	5	5
8. Coastal Districts	1.5	1.5
9. Drought-prone Areas	3	3
10. Forest Areas	1.5	1.5
11. Reserved at the State level for special problems	5	4
	100	100

It will be noticed that the main change in the weights we are suggesting is to take out the weights given to (5) Communications Backwardness, and (6) Irrigation Backwardness because, as will be presently clear, we shall be making large provisions in the State Pool for Removal of Specific Backlog for removing the backlog in these two subjects. Having made such specific provisions, we think it would be appropriate to remove the weights given to these two factors and add the same to population. We have also reduced slightly the amount reserved at the State level for special problems, and added the equivalent (1%) to the factor of Population.

17.20. Let us finally consider the allocation of the State Pool for Removal of Specific Backlog. We may clarify that though this is called State Pool, the several specific sectors/sub-sectors/schemes/programmes, the approved outlay on which is brought into this Pool, shall be kept separate as are presently the District Level Schemes in the State Pool. In other words, the approved outlay on each specific sector/sub-sector/scheme/programme shall be spent only on the same sector/etc., for which it is approved in the Plan. We are concerned only with its allocation between districts.

Certain Necessary Provisions:

17.21. As was indicated in Chapter III explaining our Approach to this problem, if the specific backlog is to be removed or reduced as rapidly as possible within the limits of available funds, the entire approved outlay on the specific sector/sub-sector/scheme/programme, subject to certain qualifications, must be expended in the districts which have a backlog in the corresponding subject. The qualification arises from the need to make some provision for (a) completing certain on-going works/projects not relevant to removal of specific backlog, and (b) meeting the needs of natural growth. We presume that the on-going works/projects in the backlog districts, areas or, in general, on-going works/projects completion of which will help removal of specific backlog will naturally receive priority. However, some provision will be needed for completing some of the on-going works/projects not so relevant to removal of the specific backlog. Among the specific sectors/etc., covered by us, Roads and Irrigation have a large number of on-going works many of which would be located in the non-backlog districts/areas or would not be otherwise relevant to removal of the specific backlog. The situation presents a dilemma. On the one hand, if one takes the otherwise reasonable view that the on-going or incomplete works should first be completed before undertaking any new ones, the process of reducing the present backlog in the lagging districts may in many cases be postponed by several years and the completing of the on-going works first may in fact enhance the present disparities. On the other hand, if one takes the otherwise necessary view that no more development in the non-backlog districts should be allowed until the present backlog in the districts lagging behind is removed, all the expenditure already incurred on some of the on-going works may be wasted.

17.22. Hence, one must take a balanced view of the situation. Though some provision has to be made for completing the on-going works, one must of necessity be highly selective in deciding which on-going works to complete and in which order. In general, the choice will have to be made on the basis of the stage at which a given work remains incomplete. A scrutiny of the on-going works will show that in many cases no more than a token beginning has been made. These should be sorted out and all such works not relevant to removal of specific backlog should be declared postponed for the duration of the Seventh Plan so that their claim as on-going works is not pressed in each successive Annual Plan. On the other hand, in some cases, work would have progressed too far for its completion to be postponed. These may be completed within the small provision that we can make. The Government may decide, on some objective considerations, the districts in which these works may be taken up in successive Annual Plans.

17.23. The second ground on which some provision has to be made not related to removal of specific backlog is the needs of natural growth. These are large in the social services such as education and health; even to maintain the present level of these

services, they must expand in proportion to population or say at the rate of 2 per cent per annum. We are again faced with a dilemma. The needs of natural growth are very large in some sectors such as education so much so that, if these are to be fully met, almost the entire plan funds will be committed to this purpose and little will be left to remove the backlog in the lagging districts. On the other hand, if the needs of the natural growth are not fully met, the level of services now reached will not be maintained. The conclusion is inescapable. If the backlog of the districts lagging behind is to be removed or reduced, it may not be possible to maintain the present level of some of the services reached in some of the advanced districts.

17.24. On a balance of considerations, we suggest that 15 per cent of the State Pool for Removal of Specific Backlog, scheme by scheme, should be reserved at the State level for (a) completing some of the on-going works/projects not relevant to removal of specific backlog, and (b) to meet the needs of natural growth. The Government may decide, on the basis of some objective considerations, the division of the total amount so reserved between the two purposes (a) and (b) as also the districts in which the on-going works/projects may be taken up in each Annual Plan within the provisions made under (a). As to the amount reserved for (b), namely meeting the needs of natural growth, we suggest that it should be distributed among all the districts, with and without a backlog, in proportion to their population, because, obviously, all districts, with or without a backlog, need some provision to meet the needs of natural growth.

17.25. In the above, we have suggested that 15 per cent of the State Pool for Removal of Specific Backlog may be reserved for (a) completion of some of the on-going works in the non-backlog districts, and (b) to meet the needs of natural growth. We wish to emphasise that this should be considered the maximum allowable on this account. Any larger diversion of funds from the State Pool for Removal of Specific Backlog will seriously retard the process of removing or reducing the present backlog.

Backlog in relation to Resources :

17.26. The remaining 85 per cent of the State Pool for Removal of Specific Backlog will be available for removal of the specific backlog. It will be useful to judge its size in relation to the size of the backlog because on that will depend how long it will take to remove the present backlog. For this purpose, it will be useful to compare the size of the backlog with the outlays in a Five Year Plan, such as the Sixth Plan or the Seventh Plan rather than in an Annual Plan such as of 1983-84. With this in view, we bring together, in Table 17.2, the sectors/sub-sectors/schemes/programmes which we have examined to assess the backlog. In Col.2 of the Table, we give the aggregate backlog in each sector/sub-sector/etc. It will be remembered that, in a number of sectors/etc., the backlog was worked out separately in terms of the capital and recurring expenditure. Because the

Table 17.2

<u>Cost of Backlog Compared to Anticipated</u>			
<u>Sector/Sub sector</u>	<u>Aggregate</u>	<u>Sixth Five Year</u>	<u>Expenditure</u>
<u>Scheme/programme</u>	<u>Backlog</u>	<u>Plan Approved</u>	<u>During</u>
	<u>in Seventh</u>	<u>Outlays</u>	<u>1980-85</u>
	<u>Plan</u>		
			(Rs. Lakh)
1	2	3	4
1.Main Roads	27,979.00	13,500.00	15,751.18
2.Other Roads	32,050.00	9,800.00	8,466.27
3.Irrigation	138,592.00	122,677.00	134,234.35
4.Rural Electrification	5,490.00	16,000.00	19,281.00
5.Energisation of Pump Sets	18,575.05	16,000.00	18,576.00
6.Primary Education	3,855.90	1,580.94	1,899.25
7.Secondary Education	3,109.95	4,887.15	6,597.72
8.Pre-University & University Education	2,037.60	997.70	1,655.10
9.Adult Education	151.11	445.42	441.57
10.Industrial Training Institutes	3,931.58	675.00	1,520.50
11.Technical High School/ Centres	1,025.20	233.00	364.27
12.Technical Training in Higher Secondary Schools	33.69	25.00	491.58
13.Vocational Courses	19.56	300.00	654.60
14.Polytechnics	3,329.80	646.00	779.66
15.Primary Health Sub-Centres	408.00	630.00	411.55
16.Primary Health Centres	-	944.00	2,308.79
17.Rural Cottage Hospitals	3,422.00	831.00	1,109.88
18.Hospital Beds	18,291.00	670.00	816.60
19.Water Supply by Dug/Bore Wells	1,132.87	6,100.00	11,876.37
20.Piped Water Supply to Problem Villages	8,016.60	20,900.00	15,764.50
21.Piped Water Supply to Other Villages	-	-	-
22.Urban Water Supply	28,675.40	4,951.00	9,632.80
23.CADA Works	8,229.40	3,470.25	1,000.00
24.Land Development in Non-CADA Areas	90.14	3,017.76	1,020.62
25.Contour Bunding	4,379.50	3,349.82	454.49
26.Terracing	2,362.50	2,620.59	561.34
27.Nala Bunding	2,431.50	7,269.38	1,140.22
28.Land Development-cum- Horticultural Development	284.11	961.75	205.72
29.Veterinary Institutes	775.35	524.30	1,055.31

(Contd)

Table 17.2 (Concl'd)

<u>Cost of Backlog Compared to Anticipated</u>			
	<u>Outlays</u>	<u>in Seventh Plan</u>	<u>(Rs.Lakh)</u>
<u>Sector/Sub sector</u> <u>Scheme/programme</u>	<u>Seventh Five Year</u> <u>Plan Estimated</u> <u>Outlays</u>	<u>Estimated Cost of</u> <u>Backlog in seventh</u> <u>Plan</u>	<u>Col (5) as</u> <u>Percentage</u> <u>of Col (6)</u>
<u>1</u>	<u>5</u>	<u>6</u>	<u>7</u>
✓ 1. Main Roads	39,377.95	41,968.50	79.75
✓ 2. Other Roads	21,165.67	48,075.00	37.42
3. Irrigation	335,585.87	207,888.00	137.21
4. Rural Electrification	48,202.00	8,235.00	497.53
5. Energisation of Pumps Sets	46,440.00	27,862.58	141.67
✓ 6. Primary Education	4,748.12	5,783.85	69.78
✓ 7. Secondary Education	16,494.30	4,664.93	300.54
8. Pre-University & University Education	4,137.75	3,056.40	115.07
✓ 9. Adult Education	1,103.92	226.67	413.96
✓ 10. Industrial Training Institutes	3,801.25	5,897.37	54.79
11. Technical High School/ Centres	910.67	1,537.80	50.34
12. Technical Training in Higher Secondary Schools	1,228.95	50.54	2,066.90
13. Vocational Courses	1,636.50	29.34	4,741.07
✓ 14. Polytechnics	1,949.15	4,994.70	33.17
✓ 15. Primary Health Sub-Centres	1,028.87	612.00	142.90
✓ 16. Primary Health Centres	5,771.97	-	-
✓ 17. Rural Cottage Hospitals	2,774.70	5,149.50	45.80
✓ 18. Hospital Beds	2,041.50	27,436.50	6.32
✓ 19. Water Supply by Dug/Bore Wells	29,690.93	1,699.31	1,485.15
✓ 20. Piped Water Supply to Problem Villages	39,411.25	12,024.90	278.58
21. Piped Water Supply to Other Villages	-	-	-
22. Urban Water Supply	24,082.00	43,012.00	47.59
23. CADA Works	2,500.00	12,344.10	17.21
24. Land Development in Non-CADA Areas	2,551.55	135.21	1,604.04
25. Contour Bunding	1,136.23	6,569.25	14.70
26. Terracing	1,403.35	3,543.75	33.66
27. Nala Bunding	2,850.55	3,647.25	66.43
28. Land Development-cum- Horticultural Development	514.30	426.17	102.58
29. Veterinary Institutes	2,638.27	1,163.03	192.92

financial provision for removing the backlog will have to be made as part of Plan Outlays; we have followed the customary practice and provided for, besides capital expenditure, recurring expenditure for a period of three years. Hence, the aggregate backlog in each sector/sub-sector/etc., shown in Col.2 consists of backlog assessed in terms of capital expenditure plus three times the backlog assessed in terms of the recurring expenditure.

17.27. In Col.3 of the Table, we show the approved outlays in the Sixth Five Year Plan (1980-85) on the respective sectors/sub-sectors/schemes/programmes. In Col.4 is shown the actual expenditure during the first four years of the Sixth Plan namely 1980-84 and the estimated expenditure during 1984-85. It may be noticed that the actual/estimated expenditure on some of the sectors/sub-sectors/etc., during the Plan period 1980-85 deviates considerably from the outlays originally approved. In Col.5, we give the estimated outlays in the Seventh Five Year Plan (1985-90). The Seventh Plan is still at an early stage of formulation. Hence, the estimated outlays shown in Col.5 are necessarily speculative; in fact, we have taken them merely to be two-and-half times the actual estimated expenditure during the Sixth Plan. We should also revise the cost of the backlog shown in Col.2 in order to take into account possible escalation in costs. Our estimates of costs of backlog are generally based on 1982-83 costs, in other words the average costs of the Sixth Plan period. We expect, again somewhat speculatively, that the average costs during the Seventh Plan period will be about 50 per cent higher. In Col.6 of the Table, we show the costs of the backlog so escalated. We should emphasise that the estimated outlays in the Seventh Plan shown in Col.5 and the escalated costs of the backlog shown in Col.6 are both essentially speculative. Our purpose here is mainly to illustrate the financial procedure we propose for removing the backlog. In Col.7 of the Table, we show 85 per cent of the estimated outlay in the Seventh Plan as a percentage of the escalated cost of the backlog shown (Col.6) It indicates what percentage of the backlog may be removed during the Seventh Plan period. The Government may bear in mind this circumstance while finalising the sectoral allocations in the Seventh Five Year Plan.

17.28. It will be seen that in some of the sectors/sub-sectors/schemes/programmes, the anticipated outlays in the Seventh Plan are more than the estimated cost of the backlog. These are: Irrigation, Electrification, Education except Primary Education, Technical Training in Higher Secondary Schools and Vocational Courses, Primary Health sub-centres, rural water supply, Land Development in Non-CADA areas, Land Development-cum-Horticultural Development, and Veterinary Institutes. In these cases, it seems the entire backlog may be removed within the Seventh Plan period. In the remaining sectors/etc., the present backlog cannot all be removed within the Seventh Plan period. These are : Roads, Primary Education, Industrial Training Institutes, Technical High Schools/Centres, Polytechnics, Rural Cottage Hospitals, Hospital Beds, Urban Water Supply, CADA Works, Contour Bunding, Terracing and Nala Bunding.

Allocation from State Pool for Removal of Backlog:

17.29. We may now ask how the 85 per cent of the outlays in the State Pool for Removal of Specific Backlog may be distributed among the districts, scheme by scheme. We should distinguish the two situations mentioned above: (a) Sectors/sub-sector/etc., in which it may be possible not only to remove the present backlog but to choose a higher target and bring all districts up to it within the Seventh Plan period; and (b) Sectors/etc., where it will be possible to remove only a part of the present backlog. In the first case, the distribution of the 85 per cent of the outlays in the State Pool for Removal of Specific Backlog, scheme by scheme, among districts is straightforward. It should be distributed in proportion to the backlog of the districts. These annual allocations will have been adequate to remove the backlog of these districts within the period of the Seventh Plan. As soon as this happens, the position of all the districts in the particular sector/sub-sector etc., should be reviewed.

17.30. We may now consider the second case namely of sectors/etc., where, during the period of the Seventh Plan, it will be possible to remove only a part of the backlog. In this situation, the distribution of funds from the State Pool for Removal of Specific Backlog to different districts with a backlog presents at least two alternatives. The first alternative is as follows: Seeing that there are not enough funds to bring all the backlog districts to the present State average, we should so allocate the funds that, beginning with the most bottom district, as many of them as the resources permit should be brought to as high a level as possible. The process may be explained as follows: Imagine all the districts arranged in descending order of the indicator under reference. Some of the districts will be found to lie above the State average and others below the State average. Those lying below the State average are the ones with a backlog. The plan funds are not adequate to bring them all to the State average and thus remove the present backlog. In the circumstance, we ask how much will it cost to raise the most bottom district, that is number one district from the bottom, to the level of the second district from the bottom. If the plan funds are more than needed for this purpose, we ask how much will it cost to raise the last two districts from the bottom to the level of the third district from the bottom. If the plan funds are more than needed even for this purpose, we ask what will it cost to raise the last three districts from the bottom to the level of the fourth district from the bottom; and so forth until the cost of raising as many districts from the bottom to the level of the next district from the bottom equals the available plan funds. Then, the funds from the State Pool for Removal of Specific Backlog will be allocated only to the districts so covered. In consequence, some districts with a backlog but lying above these districts will not get any allocation whatever. The allocation of funds when they are not adequate to remove the backlog of all the districts with a backlog are made on the principle of maximum justice to those left most behind.

17.31. The proposal has obviously a strong appeal of justice and, for that reason, we have given it much thought and consideration. We are sorry to say that, in spite of its merits, we find it not acceptable on practical considerations. It seems to us that, for administrative or operational reasons, it is not easy to confine the development in any field over a period of five years to only a few districts leaving development in the other districts frozen at its present level. The process of removing the backlog of districts lying below the State Average makes this inevitable upto a point. We must distinguish districts with and without a backlog, accelerate development in the districts with a backlog and slow it down in the districts without a backlog. This is inevitable if the process of removal of backlog is to be initiated at all. However, for administrative and operational reasons, it seems advisable not to restrict the development in any field to fewer districts than is absolutely necessary for the process of removal of backlog.

17.32. Hence, we find the proposal to remove backlog step by step beginning at the bottom so that at each step the most bottom districts are all raised to a certain minimum level attainable within the given resources, not practicable and desirable. Instead, we propose that the process of removing the backlog should be spread over all the districts with a backlog. To this purpose, we suggest that the State Pool for the Removal of Specific Backlog should be allocated, each year, to all the districts with a backlog in proportion to their backlog. Thereby, the districts left far behind will receive larger funds in proportion to the quantum of their larger backlog but the other districts with a backlog will also receive some allocations in proportion to their smaller backlog. Subject to the essential requirement of the process of removal of backlog, the development will be spread as widely as possible, namely, in all the districts with a backlog and in proportion to the quantum of their backlog. In Annexure C, we illustrate the districtwise allocations of the State Pool for Removal of Specific Backlog for each sector/sub-sector/etc., we have examined. For purposes of illustration, we shall use the approved outlays in the Annual Plan 1983-84.

17.33. From the above, it would be clear that our procedure for allocation of funds from the State Pool for Removal of Specific Backlog requires: (a) Identification of approved outlays to specific relevant sectors/sub-sectors/schemes/programmes in the Annual Plan for each year; (b) Reserving 15 per cent of the funds for completion of on-going works in the non-backlog districts and for meeting the needs of natural growth in all districts; (c) Allocating the balance of 85 per cent of the funds to all districts with a backlog in proportion to their respective backlogs measured from the present State average.

17.34 In the case of three schemes, namely, Vocational Courses, Rural Water Supply with dug/bore wells, and Land Development in Non-CADA area, the backlog is smaller than the respective outlays in the Annual Plan 1983-84. To keep our

present illustration simple, we have adopted the following procedure in the three cases. (a) We combined the backlogs and the outlays for three schemes of Technical Training, Technical High Schools/Centres, Technical Training in Higher Secondary Schools and Vocational Courses and distributed the combined outlay in proportion to the combined backlog; we combined all three, if we had combined only Technical Training in Higher Secondary Schools and Vocational Courses, the combined backlog would still be smaller than the combined outlay, (b) Similarly, we combined the two schemes of water supply to problem villages namely, water supply with dug/bore wells and piped water supply, and distributed the combined outlay in proportion to the combined backlog, (c) In the case of Land Development in Non-CADA areas, only Rs. 90.14 lakh are needed to complete all potential works while plan outlay amounts to Rs. 799.82 lakh. Hence we have distributed Rs. 90.14 lakh between districts in proportion to their backlog, that is residual work. The balance of the amount should be added to the outlays on the district level schemes to be distributed according to the formula mentioned in para 17.19.

17.35. We wish to emphasize that these allocations must be treated as earmarked for removing the backlog in the specific sector/sub-sector/scheme/programme. It means that the DPDCs will not have the authority to reallocate these funds to any other purposes. On the other hand, the DPDCs should be given greater discretion to decide, in consultation with the concerned departments, as to how these funds may be spent so that the backlog may be removed effectively and expeditiously.

17.36. It will be noted that the backlog in each sector, etc., has been worked out on the basis of some indicator. It follows that whether and to what extent the backlog has been removed or reduced will have to be judged on the basis of the same indicator. Hence, given the funds allocated for removing the backlog in a specific sector, the DPDCs will prepare a detailed plan of action indicating its expected effect on the concerned indicator and, at the end of each year, shall evaluate the plan of action in terms of the same indicator.

Reducing Disparities - A Continuous Process :

17.37. The process shall thus continue from year to year during the period of the Seventh Five Year Plan. At the end of the Seventh Plan, the entire position should be reviewed. The exercise we have done to examine regional disparities in different fields and assess the backlog of districts should be reworked in an expanded, improved, and more detailed form. More sectors/sub-sectors/schemes/programmes should be chosen to examine disparities in development; the analysis should be carried wherever justified to the taluka level; and wherever necessary, other and more relevant indicators may be chosen to assess the backlog. This should constitute the basis for continuing the process of reducing the disparities into the Eighth Five Year Plan. As we have emphasized, while explaining our Approach to this subject, what we propose to initiate is not

a programme for removing a given backlog but a continuing process of reducing disparities in development. As the process continues, hopefully, what will emerge is an alternative strategy of development, namely, development by lifting the bottom rather than pulling up the top.

17.38. We have been asked to suggest long term measures to prevent recurrence of regional disparities in development. The continuing process of reducing disparities in development, as we propose to initiate, will ensure that the existing disparities will not increase and, if new disparities arise, they will not go unnoticed and unacted upon. It has been suggested to us that it will be desirable to provide statutory guarantee that this process will continue unhindered and untampered with. We are inclined to agree.

Article 371(2):

17.39. It has been emphatically represented to us that the invocation of the provisions of Article 371(2) of the Constitution will precisely serve this purpose of giving a statutory guarantee to the policy and process of removing regional disparities and that therefore we should strongly recommend the same. We have given this proposition all the careful consideration which it demands and deserves.

17.40. As already explained (para 2.6), Article 371(2) of the Constitution empowers the President of India to provide for special responsibility of the Governor in respect of three matters, namely (a) the establishment of separate development boards for Vidarbha, Marathwada, and the rest of Maharashtra with the provision that a report on the working of each board will be placed every year before the State Legislative Assembly; (b) equitable allocation of funds for development expenditure over the three regions subject to the requirements of the State as a whole; and (c) equitable arrangements providing adequate facilities for technical education and vocational training, and adequate opportunities for employment in services under the control of the State Government, in respect of the three regions, subject to the requirements of the State as a whole.

17.41. We have already examined at length how funds for development expenditure may be allocated equitably between the three regions. In doing this, we have given to the concept of "equitable allocation" a specific and operationally meaningful content and, recognising that there are disparities in development even within the three regions, we have extended the concept to the districts and suggested that, wherever appropriate, it may be extended further to the talukas. In like manner, we have examined how equitable arrangements may be made to provide adequate facilities for technical education and vocational training in the three regions. Here again we have given the terms "equitable arrangements" and "adequate facilities" a specific and operationally meaningful content and extended the same to the districts. We have not examined how

equitable arrangements may be made for providing adequate opportunities for employment in services under the control of the State Government. We shall consider it in the next Chapter.

17.42. Hence, if the Government will accept our recommendations in respect of (i) equitable allocation of funds for development expenditure, and (ii) equitable arrangements to provide adequate facilities for technical education and vocational training, we do not think it will be necessary to make these matters a special responsibility of the Governor. Once the Government accepts the policy and the process recommended by us, all that is needed is a statutory guarantee that these will be pursued unhindered and untampered with. It is in this context that we need examine the provisions under Article 371(2) to establish separate development boards for Vidarbha, Marathwada, and rest of Maharashtra.

17.43. Article 371(2) does not specify the functions of the contemplated regional development boards except that the boards will report to the State Legislature every year. Naturally, we found great differences of opinion, even among those who advocated invoking the provisions of Article 371(2), as to the scope, powers, and functions of the regional boards. As much as we can see, the regional development boards cannot have executive functions independent of the State Government; clearly, this would be contrary to the requirements and interests of the State as a whole. Hence, it seems to us that the regional development boards can have only watch-dog functions of overseeing the operation of the policy and process of reducing regional disparities in development and implementation of the related programmes, and making a report every year to the State Legislature.

Statutory Watch-Dog Authority :

17.44. We think it necessary and desirable to have a statutory watch-dog authority of this kind. In the nature of its functions, it is obvious that such an authority cannot be regional and must not be political. There has to be a single non-political authority for the whole State. It should also not be a Committee or a Council. It should be a single person, non-political, quasi-judicial, single authority for the whole State. We recommend that a statutory watch-dog authority of this kind be established to oversee the process of reducing regional disparities in development and to report every year to the State Legislature.

17.45. We do not feel competent to spell out the detailed provisions of the necessary legislation. However, it seems to us that a legislation similar in scope and intention to the Maharashtra Lokayukta and Upa-Lokayukta Act, 1971, will be useful.

17.46. We invite attention to some of the provisions of the Lokayukta Act which appear relevant to our purpose.

Appointment:

The Governor shall, by warrant under his hand and seal appoint a person to be known as x x x provided x x x shall be appointed after consultation with the Chief Justice of the High Court and the Leader of the Opposition (Clause 3). We suggest that in the present case the appointment should be made by the Government in consultation with the Leader of the Opposition.

To hold no Office:

x x x shall not be a member of Parliament or a member of the Legislature of any State and shall not hold any office of trust or profit (other than his office) or be connected with any political party or carry on any business or practise any profession (Clause 4).

Term of Office:

x x x shall hold office for a term of five years from the date on which he enters upon his office (Clause 5).

Conditions of Service:

The allowances and pension payable to, and other conditions of service, of x x x shall be such as may be prescribed provided that regard shall be had to the allowances and pensions payable to and other conditions of service of, the Chief Justice of the High Court (Clause 5.5).

Removal:

Subject to the provisions of the Constitution; x x x may be removed from his office by the Governor on the ground of misbehaviour or incapacity, and on no other ground: Provided, etc.

Matters to be Investigated:

(Clause 7) In the present case, these will naturally be quite different. We suggest the following points: (a) Composition and content of the State Pool for Removal of Specific Backlog; (b) Its allocation each year to different districts; (c) Its expenditure during the year; (d) Net results achieved in reducing the backlog and disparities in terms of the indicators used; and (e) Any policies, plans, programmes, proposals, and acts of the State Government which may hinder, tamper with, neutralise, or otherwise defeat the process of reducing regional disparities.

Provisions relating to complaints:

A complaint may be made under this Act to x x x provided every complaint shall be made in such form and shall be accompanied by such affidavits as may be prescribed (Clause 9).

Evidence:

x x x may require any public servant or any other person who in his opinion is able to furnish information or produce documents relevant to the investigation to furnish any such information or produce such document (Clause 11).

Report (Clause 12). This may be substituted to say that x x x will submit his report every year to the Government and the Government shall present it to the State Legislature where there will be at least one day reserved for discussion.

Staff:

x x x may appoint officers and other employees to assist in the discharge of his functions; the categories of officers and employees who may be appointed, their salaries, allowances, and other conditions of service and the administrative powers of x x x shall be such as may be prescribed after consultation with x x x . Without prejudice to the above provisions, x x x may, for the purpose of conducting investigations under this Act, utilise the services of any officer of the State Government.

17.47. To leave no doubt on this point, we should make clear that the proposed authority, whatever its name, shall not be an executive authority responsible for implementation of any programmes nor shall it have authority to restrain any officer, department, or agency of the Government or to prevent him from executing any programme whatsoever. The function of the proposed authority will be to investigate and evaluate ex post (i) composition and content of the State Pool for Removal of Specific Backlog, (ii) its allocation each year to different districts, (iii) its expenditure during the year, (iv) the net results achieved in reducing backlog and disparities in terms of specified indicators, (v) watch any policies, programmes, etc., of the Government which might defeat this process, and (vi) make an annual report to Government. His effectiveness will depend upon the objectivity and thoroughness with which he makes his annual report to Government which shall be placed before the State Legislature. We believe that a publicly announced commitment of the State Government to a policy and programme of reducing regional disparities such as recommended by us, an independent authority to report annually on its implementation, and a public debate on his report, both inside and outside the State Legislature, provide a more effective mechanism to oversee the process of reducing regional disparities and to prevent their recurrence, consistent with the requirements and interests of the State as a whole, than the regional development boards contemplated in Article 371(2). As already mentioned, we have not so far examined what provisions can be made to ensure adequate representation to different regions in services under the control of the State Government. Such provisions, if considered essential, may require invoking the provisions of Article 371(2). We shall examine the question in the next Chapter.

Annexure A

Cost of Backlog of Roads, Irrigation and Electrification

(Rs. Lakh)

District	Main Roads	Other Roads	Irrigation	Village Electrification	Energy-Agricultural Pumpsets	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	2,045.00	-	4,108.00	351.00	294.45	6,798.45
3. Raigad	597.00	1,280.00	-	331.20	629.98	2,838.18
4. Ratnagiri	3,038.00	420.00	6,450.00	273.60	1,096.42	11,278.02
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>5,680.00</u>	<u>1,700.00</u>	<u>10,558.00</u>	<u>955.80</u>	<u>2,020.85</u>	<u>20,914.65</u>
5. Nashik	681.00	2,070.00	4,815.00	219.60	-	7,785.60
6. Dhule	900.00	-	4,223.00	376.20	-	5,499.20
7. Jalgaon	946.00	-	3,181.00	-	-	4,127.00
8. Ahmednagar	879.00	-	7,549.00	-	-	8,428.00
9. Pune	1,549.00	2,670.00	5,639.00	225.00	361.01	10,444.01
10. Satara	1,013.00	-	2,259.00	-	415.09	3,687.09
11. Sangli	304.00	-	5,991.00	-	-	6,295.00
12. Solapur	926.00	-	9,975.00	-	1,415.31	12,316.31
13. Kolhapur	586.00	-	-	-	-	586.00
<u>WESTERN MAHARASHTRA</u>	<u>7,784.00</u>	<u>4,740.00</u>	<u>43,632.00</u>	<u>820.80</u>	<u>2,191.41</u>	<u>59,168.21</u>
14. Aurangabad	1,817.00	-	7,569.00	-	-	9,386.00
15. Parbhani	1,935.00	4,590.00	-	90.00	2,844.40	9,459.40
16. Beed	1,181.00	-	10,437.00	-	1,659.45	13,277.45
17. Nanded	699.00	300.00	-	331.20	1,219.53	2,549.73
18. Osmanabad	460.00	-	13,665.00	-	1,101.88	15,266.88
<u>MARATHWADA</u>	<u>6,092.00</u>	<u>4,890.00</u>	<u>31,671.00</u>	<u>421.20</u>	<u>6,825.26</u>	<u>49,899.46</u>
19. Buldhana	479.00	880.00	8,478.00	104.40	-	9,941.40
20. Akola	624.00	1,440.00	9,235.00	196.20	1,377.22	12,872.42
21. Amravati	1,292.00	1,900.00	13,433.00	153.00	-	16,778.00
22. Yavatmal	1,376.00	2,770.00	10,541.00	68.40	1,392.69	16,148.09
23. Wardha	889.00	770.00	4,389.00	50.40	-	6,098.40
24. Nagpur	431.00	3,430.00	1,165.00	99.00	-	5,125.00
25. Bhandara	222.00	-	-	385.20	1,561.17	2,168.37
26. Chandrapur	3,110.00	9,530.00	5,490.00	2,235.60	3,206.45	23,572.05
<u>VIDARBHA</u>	<u>8,423.00</u>	<u>20,720.00</u>	<u>52,731.00</u>	<u>3,292.20</u>	<u>7,537.53</u>	<u>92,703.73</u>
<u>MAHARASHTRA STATE</u>	<u>27,979.00</u>	<u>32,050.00</u>	<u>138,592.00</u>	<u>5,490.00</u>	<u>18,575.05</u>	<u>222,686.05</u>
<u>(excl. G.B.)</u>	<u>27,979.00</u>	<u>32,050.00</u>	<u>138,592.00</u>	<u>5,490.00</u>	<u>18,575.05</u>	<u>222,686.05</u>

(Contd)

ANNEXRE A(Contd)

Cost of Backlog in General Education

(Rs. Lakh)

District	Primary Education	Secondary Education	Pre-University and University Education	Adult Education	Total
1	8	9	10	11	12
1. Greater Bombay	-	-	-	-	-
2. Thane	721.50	257.40	192.60	17.70	1,189.20
3. Raigad	-	63.00	234.90	-	297.90
4. Ratnagiri	-	-	288.00	-	288.00
KONKAN					
<u>(excl. G.B.)</u>	<u>721.50</u>	<u>320.40</u>	<u>715.50</u>	<u>17.70</u>	<u>1,775.10</u>
5. Nashik	-	-	-	32.40	32.40
6. Dhule	126.90	55.35	63.90	-	246.15
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	17.64	17.64
9. Pune	63.60	-	-	-	63.60
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	15.00	15.00
12. Solapur	-	334.35	5.40	17.79	357.54
13. Kolhapur	-	109.80	-	-	109.80
WESTERN MAHARASHTRA	<u>190.50</u>	<u>499.50</u>	<u>69.30</u>	<u>82.83</u>	<u>842.13</u>
14. Aurangabad	279.60	329.85	-	0.75	610.20
15. Parbhani	745.20	483.30	263.70	11.49	1,503.69
16. Beed	375.00	225.00	0.90	-	600.90
17. Nanded	414.60	241.20	-	-	655.80
18. Osmanabad	45.00	-	-	-	45.00
MARATHWADA	<u>1,859.40</u>	<u>1,279.35</u>	<u>264.60</u>	<u>12.24</u>	<u>3,415.59</u>
19. Buldhana	84.60	111.15	215.10	-	410.85
20. Akola	36.90	-	108.90	-	145.80
21. Amravati	-	-	-	-	-
22. Yavatmal	39.00	299.25	162.00	14.04	514.29
23. Wardha	-	-	34.20	-	34.20
24. Nagpur	410.10	-	-	24.30	434.40
25. Bhandara	245.70	132.30	260.10	-	638.10
26. Chandrapur	268.20	468.00	207.90	-	944.10
VIDARBHA	<u>1,084.50</u>	<u>1,010.70</u>	<u>988.20</u>	<u>38.34</u>	<u>3,121.74</u>
MAHARASHTRA STATE	<u>3,855.90</u>	<u>3,109.95</u>	<u>2,037.60</u>	<u>151.11</u>	<u>9,154.56</u>
MAHARASHTRA STATE					
<u>(excl. G.B.)</u>	<u>3,855.90</u>	<u>3,109.95</u>	<u>2,037.60</u>	<u>151.11</u>	<u>9,154.56</u>

(Contd)

Annexure A(Contd)

Cost of Backlog in Technical Education

(Rs. Lakh)

District	Industrial Training Institutes	Technical High-schools/ Centers	Technical Training in Higher Secondary Schools	Vocational Courses	Poly-technics	Total
1	13	14	15	16	17	18
1. Greater Bombay	970.55	-	-	-	-	970.55
2. Thane	86.00	-	3.18	2.49	236.00	327.67
3. Raigad	-	58.57	2.22	-	237.80	298.59
4. Ratnagiri	-	40.32	2.28	-	266.80	309.40
<u>KONKAN</u> (excl. G.B.)	86.00	98.89	7.68	2.49	740.60	935.66
5. Nashik	84.50	91.94	1.56	-	141.60	319.60
6. Dhule	106.80	-	2.16	2.34	3.60	114.90
7. Jalgaon	239.89	-	-	2.34	3.60	245.83
8. Ahmednagar	276.12	61.04	1.35	2.22	216.00	556.73
9. Pune	371.95	-	-	1.41	-	373.36
10. Satara	-	-	-	1.89	3.60	5.49
11. Sangli	-	-	-	1.65	212.40	214.05
12. Solapur	322.73	-	-	0.30	-	323.03
13. Kolhapur	-	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	1,401.99	152.98	5.07	12.15	580.80	2,152.99
14. Aurangabad	64.31	79.06	0.21	-	239.60	383.18
15. Parbhani	251.93	48.82	3.06	1.20	180.60	485.61
16. Beed	77.29	-	0.78	1.02	180.60	259.69
17. Nanded	122.91	61.83	1.35	-	74.40	260.49
18. Osmanabad	254.22	40.88	1.14	-	253.20	549.44
<u>MARATHWADA</u>	770.66	230.59	6.54	2.22	928.40	1,938.41
19. Buldhana	38.94	60.58	2.25	1.05	3.60	106.42
20. Akola	149.44	95.66	1.59	-	141.60	388.29
21. Amravati	79.50	132.26	3.12	-	-	214.88
22. Yavatmal	171.10	80.87	2.82	-	74.40	329.19
23. Wardha	-	-	-	-	212.40	212.40
24. Nagpur	80.50	54.88	2.28	-	35.40	173.06
25. Bhandara	49.56	36.07	1.62	1.65	180.60	269.50
26. Chandrapur	133.34	82.42	0.72	-	432.00	648.48
<u>VIDARBHA</u>	702.38	542.74	14.40	2.70	1,080.00	2,342.22
<u>MAHARASHTRA STATE</u>	3,931.58	1,025.20	33.69	19.56	3,329.80	8,339.83
<u>MAHARASHTRA STATE</u> (excl. G.B.)	2,961.03	1,025.20	33.69	19.56	3,329.80	7,369.28

(Contd)

ANNEXURE A(Contd)

Cost of Backlog of Health Services and Water Supply

(Rs. Lakh)

District	Primary Health Sub Centers	Rural/ Cottage Hospitals	Hospital Beds	Water Supply to Problem Villages	Piped Water Supply to Problem Villages	Urban Water Supply	Total
1	19	20	21	22	23	24	25
1.Greater Bombay	-	-	-	-	-	-	-
2.Thane	44.80	116.00	-	237.60	84.02	160.00	642.42
3.Raigad	91.20	58.00	300.30	121.83	99.07	370.00	1,040.40
4.Ratnagiri	57.60	58.00	606.90	386.10	1,163.19	480.00	2,751.79
KONKAN							
(excl. G.B.)	193.60	232.00	907.20	745.53	1,346.28	1,010.00	4,434.61
5.Nashik	11.20	232.00	806.40	-	128.52	2,248.00	3,426.12
6.Dhule	32.00	232.00	1,388.10	-	234.01	2,080.00	3,966.11
7.Jalgaon	-	174.00	1,898.40	-	581.94	3,126.40	5,780.74
8.Ahmednagar	33.60	348.00	714.00	170.10	72.90	340.00	1,678.60
9.Pune	-	116.00	-	39.68	226.81	320.00	702.49
10.Satara	20.80	58.00	749.70	58.24	-	502.00	1,388.74
11.Sangli	3.20	58.00	-	-	-	250.00	311.20
12.Solapur	-	116.00	-	76.16	54.07	850.00	1,096.23
13.Kolhapur	27.20	116.00	1,484.70	23.76	-	292.00	1,943.66
WESTERN MAHARASHTRA	128.00	1,450.00	7,041.30	367.94	1,298.25	10,008.40	20,293.89
14.Aurangabad	27.20	58.00	426.30	-	11.92	2,170.00	2,693.42
15.Parbhani	-	174.00	1,850.10	-	581.63	1,554.00	4,159.73
16.Beed	-	116.00	646.80	-	18.10	610.00	1,390.90
17.Nanded	-	116.00	1,281.00	-	268.69	794.00	2,459.69
18.Osmanabad	11.20	174.00	2,366.70	-	47.05	1,600.00	4,198.95
MARATHWADA	38.40	638.00	6,570.90	-	927.39	6,728.00	14,902.69
19.Buldhana	6.40	58.00	976.50	-	273.29	1,250.00	2,564.19
20.Akola	1.60	116.00	71.40	-	1,284.44	2,260.00	3,733.44
21.Amravati	-	116.00	-	-	590.59	2,440.00	3,146.59
22.Yavatmal	27.20	116.00	678.30	-	124.23	1,040.00	1,985.73
23.Wardha	-	-	69.30	19.40	249.39	872.40	1,210.49
24.Nagpur	6.40	58.00	-	-	471.74	996.80	1,532.94
25.Bhandara	6.40	174.00	997.50	-	598.05	1,040.00	2,815.95
26.Chandrapur	-	464.00	978.60	-	852.95	1,028.80	3,324.35
VIDARBHA	48.00	1,102.00	3,771.60	19.40	4,444.68	10,928.00	20,313.68
MAHARASHTRA STATE	408.00	3,422.00	18,291.00	1,132.87	8,016.60	28,674.40	59,944.87
MAHARASHTRA STATE (excl. G.B.)	408.00	3,422.00	18,291.00	1,132.87	8,016.60	28,674.40	59,944.87

(Contd)

Annexure A(Contd)

Cost of Backlog in Land Development and Soil Conservation

(Rs. Lakh)

District	Land Development Work by CADA	Work in non- CADA Areas	Contour Bunding	Terracing	Nala Bunding
1	26	27	28	29	30
1. Greater Bombay	-	-	-	-	-
2. Thane	-	2.78	-	-	47.50
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	1,350.00	-
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>-</u>	<u>2.78</u>	<u>-</u>	<u>1,350.00</u>	<u>47.50</u>
5. Nashik	-	-	-	-	-
6. Dhule	28.20	-	-	-	-
7. Jalgaon	-	-	171.00	-	-
8. Ahmednagar	-	11.65	-	-	-
9. Pune	787.60	12.40	-	-	-
10. Satara	55.60	-	648.00	112.50	-
11. Sangli	1,048.20	-	-	-	-
12. Solapur	1,979.20	7.94	-	-	-
13. Kolhapur	563.20	-	-	-	60.00
<u>WESTERN MAHARASHTRA</u>	<u>4,462.00</u>	<u>31.99</u>	<u>819.00</u>	<u>112.50</u>	<u>60.00</u>
14. Aurangabad	-	-	-	-	195.00
15. Parbhani	901.20	3.77	715.50	-	179.00
16. Beed	-	0.48	36.00	-	202.50
17. Nanded	1,731.20	-	40.50	-	199.00
18. Osmanabad	-	-	-	-	426.00
<u>MARATHWADA</u>	<u>2,632.40</u>	<u>4.25</u>	<u>792.00</u>	<u>-</u>	<u>1,201.50</u>
19. Buldhana	-	6.32	-	-	223.00
20. Akola	-	-	887.50	-	117.50
21. Amravati	-	-	292.50	-	125.50
22. Yavatmal	178.80	18.56	360.00	-	183.50
23. Wardha	-	-	364.50	-	241.00
24. Nagpur	956.20	4.36	18.00	-	232.00
25. Bhandara	-	0.35	-	-	-
26. Chandrapur	-	21.53	846.00	900.00	-
<u>VIDARBHA</u>	<u>1,135.00</u>	<u>51.12</u>	<u>2,768.50</u>	<u>900.00</u>	<u>1,122.50</u>
<u>MAHARASHTRA STATE</u>	<u>8,229.40</u>	<u>90.14</u>	<u>4,379.50</u>	<u>2,362.50</u>	<u>2,431.50</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>8,229.40</u>	<u>90.14</u>	<u>4,379.50</u>	<u>2,362.50</u>	<u>2,431.50</u>

(Contd)

Annexure A(Concl'd)

Cost of Backlog in Land Development, Soil Conservation and Veterinary Institutes
(Rs. Lakh)

District	Land Development- cum- Horticultural Development	Total Land Development and Soil Conservation	Veterinary Institutes	Grand Total of all Schemes
1	31	32	33	34
1. Greater Bombay	-	-	-	970.55
2. Thane	18.39	68.67	18.30	9,044.71
3. Raigad	43.92	43.92	3.00	4,521.99
4. Ratnagiri	-	1,350.00	18.00	15,995.21
<u>KONKAN</u>				
<u>(excl. G.B.)</u>	<u>63.31</u>	<u>1,462.59</u>	<u>39.30</u>	<u>29,561.91</u>
5. Nashik	-	-	9.00	11,572.72
6. Dhule	-	28.20	6.00	9,860.56
7. Jalgaon	-	171.00	39.45	10,364.02
8. Ahmednagar	-	11.65	96.30	10,788.92
9. Pune	-	800.00	12.00	12,395.46
10. Satara	-	816.10	3.00	5,900.42
11. Sangli	-	1,048.20	24.00	7,907.45
12. Solapur	-	1,987.14	53.25	16,133.50
13. Kolhapur	219.39	842.59	-	3,482.05
<u>WESTERN MAHARASHTRA</u>	<u>219.39</u>	<u>5,704.88</u>	<u>243.00</u>	<u>88,405.10</u>
14. Aurangabad	-	195.00	21.00	13,288.80
15. Parbhani	-	1,799.47	75.60	17,483.50
16. Beed	1.24	240.22	39.75	15,808.91
17. Nanded	-	1,970.70	122.55	8,018.96
18. Osmanabad	-	426.00	39.30	20,485.57
<u>MARATHWADA</u>	<u>1.24</u>	<u>4,631.39</u>	<u>298.20</u>	<u>75,085.74</u>
19. Buldhana	-	229.32	-	13,252.18
20. Akola	-	1,005.00	6.60	18,151.55
21. Amravati	1.17	419.17	-	20,558.64
22. Yavatmal	-	740.86	48.75	19,766.91
23. Wardha	-	605.50	6.00	8,166.99
24. Nagpur	-	1,210.56	-	8,475.96
25. Bhandara	-	0.35	-	5,892.27
26. Chandrapur	-	1,767.53	133.50	30,390.01
<u>VIDARBHA</u>	<u>1.17</u>	<u>5,978.29</u>	<u>194.85</u>	<u>124,654.51</u>
<u>MAHARASHTRA STATE</u>	<u>284.11</u>	<u>17,777.15</u>	<u>775.35</u>	<u>318,677.81</u>
<u>(excl. G.B.)</u>	<u>284.11</u>	<u>17,777.15</u>	<u>775.35</u>	<u>317,707.26</u>

ANNEXURE B
Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
1. <u>Main Roads:</u>		
1. State Highways)		
2. Rewas Karanja Bridge and Techno-) economic feasibility studies of) Bombay-Thana Link)	6,700.00	1,357.00
3. Strengthening road crust of) selected stretches of State) Highways to cater for higher) payloads		
4. Purchase of Machinery	400.00	125.00
5. Special Road Programme for inter-district bridges	1,600.00	50.00
6. District Roads (non MNP)	4,800.00	1,612.00
7. Special Addl. Road Development Programme for Vidarbha	-	499.50
2. <u>Other Roads</u>		
1. Purchase of Machinery	400.00	75.00
2. District Roads (MNP)	-	826.22
3. Special Rural Roads Programme (MNP)	9,400.00	350.00
4. Special Road Programme for removal of backlog in respect of rural roads including marooned villages in Vidarbha (MNP)	-	134.28
5. Special Roads Programme for Hilly Areas	-	300.00
	<u>23,300.00</u>	<u>5,329.00</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
3. <u>Irrigation</u>		
1. Local Sector Minor Irrigation Works	5,000.00	950.00
2. State Sector Minor Irrigation Works	10,000.00	2,600.00
3. Medium Irrigation including Flood-control	17,502.00	5,793.00
4. Major Irrigation -		
(i) Major Irrigation Projects (World Bank assisted)	55,093.00	12,940.00
(ii) Major Irrigation Projects (Non World Bank assisted) Pre-1980	34,167.00	9,386.00
(iii) Major Projects started during Sixth Plan	915.00	405.00
	<u>122,677.00</u>	<u>32,074.30</u>
4. <u>Rural Electrification</u>		
1. Rural Electrification -State Plan))
2. System Improvement))
3. Electrification of Harijan Bastis)16,000.00) 3,446.00
4. Normal Development))
5. Special Schemes for Electrification of Tribal villages))
6. Rural Electrification Corporation)) 854.00
	<u>16,000.00</u>	<u>4,300.00</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
5. <u>Energization of Agricultural Pumps*</u>	<u>18,341.00</u>	<u>3,500.00</u>
* Financed partly from provisions under Rural Electrification and partly from outside (Institutional Finance) Sources. Figures in Cols. (2) & (3) against the Scheme are outside the State Plan outlays/ expenditure. They are excluded while presenting the analysis of the plan.		
6. <u>Primary Education</u>		
1. Balwadis in Primary Schools	35.00	4.00
2. Conversion of 1 teacher schools to 2 teacher schools.	26.00	5.90
3. Teachers for schools in school-less villages	160.50	44.16
4. Appointment of teachers due to revision of norms	1,116.00	400.00
5. Grants to Municipalities for expansion of primary education	25.00	18.60
6. Strengthening of Inspection, Supervision and Monitoring of Primary Education	200.00	77.32
7. Surprise Inspection Squads for Primary Edn.	18.44	7.80
	<u>1,580.94</u>	<u>557.78</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
7. <u>Secondary Education</u>		
1. Opening of additional divisions	4,013.00	1,235.79
2. Opening of non-Govt. Secondary Schools	567.00	210.17
3. Laboratory Assistants in non-Govt. Secondary Schools	90.00	17.00
4. Inspection Machinery	61.63	19.05
5. Attaching Standard V-VII to Secondary	155.52	25.00
	<u>4,887.15</u>	<u>1,507.01</u>
8. <u>Pre-University & University Education</u>		
1. Additional Divisions in Junior Colleges	800.00	358.00
2. Maintenance Grants to non-Govt. Colleges	197.70	46.00
	<u>997.70</u>	<u>404.00</u>
9. <u>Adult Education</u>		
1. Adult Education	445.42	96.40
	<u>445.42</u>	<u>96.40</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
10. <u>Industrial Training Institutes</u>		
1. Opening & Strengthening of ITIs	300.00	186.85
2. Consolidation & Making Good of deficiencies in ITIs	250.00	71.75
3. Hostel Buildings & Staff Quarters for ITIs	100.00	24.35
4. Introduction of Popular Trades	25.00	2.60
	<u>675.00</u>	<u>285.27</u>
11. <u>Technical High Schools/Centres</u>		
1. Development of facilities in Pre-SSC technical education	75.00	32.00
2. Civil Engineering Assistants Course	158.00	32.00
	<u>233.00</u>	<u>64.00</u>
12. <u>Technical Training in Higher Secondary Schools</u>		
1. Higher Secondary Technical Education	25.00	7.00
	25.00	7.00
13. <u>Vocational Courses</u>		
Vocationalisation of Education at +2 Stage	300.00	91.75
	<u>300.00</u>	<u>91.75</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
14. <u>Polytechnics</u>		
1. Removing deficiencies in Government Polytechnics	340.00	65.44
2. Introduction of additional semesters	20.00	11.34
3. Introduction of diversified diploma courses	25.00	21.35
4. Establishment of new Government Polytechnics	230.00	58.29
5. Grant-in-aid to non-Government Polytechnics	21.00	21.00
6. Development of Libraries in Government Polytechnics	10.00	2.00
	<u>646.00</u>	<u>179.42</u>
15. <u>Primary Health Sub Centres</u>		
1. Establishment of Rural Mobile Dispensaries	-	90.18
2. Upgradation of Primary Health Units/Dispensaries in Subsidiary Health Centres	-	84.00
3. Establishment of Sub-Centres, Auxiliary-Nurse-cum-Midwife per 5 thousand population	630.00	15.00
4. Grant for Establishment of new PHUs	100.00	25.00
	<u>730.00</u>	<u>214.18</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
<u>16. Primary Health Centres</u>		
1. Primary Health Centres	500.00	217.13
2. Upgradation of PHUs into PHCs	-	395.56
3. Establishment of PHCs (MNP)	444.00	46.00
	<u>944.00</u>	<u>658.69</u>
<u>17. Rural Hospitals/Cottage Hospitals</u>		
1. Upgradation of PHCs into Rural Hospitals	566.00	194.50
2. Establishment of new Cottage Hospitals	205.00	152.40
3. Improvement of existing Cottage Hospitals	60.00	25.98
	<u>831.00</u>	<u>372.88</u>
<u>18. Hospital Beds</u>		
1. Expansion of facilities in Civil Hospitals (non-teaching)	670.00	209.28
	<u>670.00</u>	<u>209.28</u>

(Contd)

ANNEXURE B (Contd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
19. <u>Water Supply (Excluding Corporation Areas)</u>		
1. Government Water Supply Schemes (Urban)	921.00	150.00
2. Municipal Water Supply Schemes (Urban)	755.00	1,093.00
3. Rural Piped Water Supply (Special Measures)	20,900.00	3,486.00
4. Construction of Wells in New villages of the landless	850.00	65.00
5. Construction of Borewells through the GSDA	6,100.00	1,800.00
6. LIC loan for Rural/Urban Water Supply	3,000.00	1,464.00
7. OMB of MWSS Board	275.00	883.00
	<u>32,801.00</u>	<u>8,941.00</u>
20. <u>CADA Works*</u>	<u>3,470.00</u>	<u>988.96</u>
21. <u>Land Development under Irrigation Projects in non-CADA areas *</u>	<u>3,017.76</u>	<u>799.82</u>
22. <u>Contour Bunding*</u>	<u>3,349.82</u>	<u>713.71</u>
23. <u>Terracing*</u>	<u>2,620.69</u>	<u>456.94</u>
24. <u>Nala Bunding*</u>	<u>7,269.38</u>	<u>1,935.97</u>

(Contd)

ANNEXURE B (Concl'd)

Plan Schemes Relevant to Sectors/Sub-sectors/Schemes/
Programmes Examined for Backlog

(Rs. Lakh)

Sectors/Schemes/Programmes Relevant to each Item of Backlog.	Approved Outlay for the Sixth Plan 1980-85.	Approved Outlay for the Annual Plan 1983-84.
1	2	3
<u>25. Land-Development-cum- Horticultural Development*</u>	<u>961.75</u>	<u>238.73</u>
* The expenditure on these items is incurred from outlays under sectors like the Agricultural and Allied Services, Soil-Conservation, EGS and Western Ghats Development Programmes, PDAP. The figures are aggregations of expenditure, and estimated apportionment of expenditure on establishment.		
<u>26. Veterinary Institutes</u>		
1. Establishment & Construction of Buildings of Veterinary Polyclinics	100.00	49.00
2. Establishment & Construction of Buildings of Veterinary Dispensaries and Veterinary Aid Centres	168.90	83.88
3. Upgradation of Veterinary Aid Centres	57.00	36.10
4. Establishment of mobile epizootic control unit/mobile veterinary clinic	31.95	21.00
5. Establishment & Expansion of I.C.D. Projects	71.30	17.30
6. Establishment of Key Village Centres	0.85	9.00
7. Establishment & Expansion of District A-1 centres & construction of bull sheds & buildings	94.30	44.20
	<u>524.30</u>	<u>260.48</u>
Grand Total (excluding Outside Plan Resources of the MSEB - Sr.No.5 under energisation of Agrl. Pumps)	<u>228,957.16</u>	<u>60,686.57</u>

Annexure C

<u>Revised</u>	<u>Allocation of Approved Outlays in</u>					(Rs. Lakh)
	<u>Annual Plan, 1983-84</u>					
District	Main Roads	Other Roads	Irri- gation	Village Electri- fication	Energising Agricultural Pumpsets	Total
1	2	3	4	5	6	7
1. Greater Bombay	-	-	-	-	-	-
2. Thane	226.36	-	808.10	233.68	47.16	1,315.30
3. Raigad	66.08	57.22	-	220.50	100.90	444.70
4. Ratnagiri	336.27	18.77	1,268.80	182.15	175.60	1,981.59
<u>KONKAN</u> <u>(excluding G.B)</u>	<u>628.71</u>	<u>75.99</u>	<u>2,076.90</u>	<u>636.33</u>	<u>323.66</u>	<u>3,741.59</u>
5. Nashik	75.38	92.53	947.17	146.20	-	1,264.28
6. Dhule	99.62	-	830.72	250.46	-	1,180.80
7. Jalgaon	104.72	-	625.75	-	-	730.47
8. Ahmednagar	97.30	-	1,484.99	-	-	1,582.29
9. Pune	171.46	119.35	1,109.27	149.80	57.82	1,607.70
10. Satara	112.13	-	444.38	-	66.48	622.99
11. Sangli	33.65	-	1,178.50	-	-	1,212.15
12. Solapur	102.50	-	1,962.22	-	226.68	2,291.40
13. Kolhapur	64.86	-	-	-	-	64.86
<u>WESTERN MAHARASHTRA</u>	<u>861.62</u>	<u>211.88</u>	<u>8,583.00</u>	<u>546.46</u>	<u>350.98</u>	<u>10,553.94</u>
14. Aurangabad	201.12	-	1,488.92	-	-	1,690.04
15. Parbhani	214.18	205.18	-	59.92	455.56	934.84
16. Beed	130.72	-	2,053.10	-	265.78	2,449.60
17. Nanded	77.37	13.41	-	220.50	195.32	506.60
18. Osmanabad	50.92	-	2,688.09	-	176.48	2,915.49
<u>MARATHWADA</u>	<u>674.31</u>	<u>218.59</u>	<u>6,230.11</u>	<u>280.42</u>	<u>1,093.14</u>	<u>8,496.57</u>
19. Buldhana	53.02	39.34	1,667.73	69.50	-	1,829.59
20. Akola	69.07	64.37	1,816.65	130.62	220.58	2,301.29
21. Amravati	143.01	84.93	2,642.45	101.86	-	2,972.25
22. Yavatmal	152.31	123.82	2,073.56	45.54	223.05	2,618.29
23. Wardha	98.40	34.42	863.37	33.55	-	1,029.74
24. Nagpur	47.71	153.32	229.17	65.91	-	496.11
25. Bhandara	24.57	-	-	256.45	250.04	531.06
26. Chandrapur	344.24	426.01	1,079.96	1,488.36	513.55	3,852.12
<u>VIDARBHA</u>	<u>932.33</u>	<u>926.21</u>	<u>10,372.89</u>	<u>2,191.79</u>	<u>1,207.22</u>	<u>15,630.45</u>
<u>MAHARASHTRA STATE</u>	<u>3,096.97</u>	<u>1,432.67</u>	<u>27,262.90</u>	<u>3,655.00</u>	<u>2,975.00</u>	<u>38,422.55</u>
<u>MAHARASHTRA STATE</u> <u>(excluding G.B)</u>	<u>3,096.97</u>	<u>1,432.67</u>	<u>27,262.90</u>	<u>3,655.00</u>	<u>2,975.00</u>	<u>38,422.55</u>
<u>Reserved at State</u> <u>Level</u>	<u>546.53</u>	<u>252.83</u>	<u>4,811.10</u>	<u>645.00</u>	<u>525.00</u>	<u>6,780.46</u>
<u>TOTAL</u>	<u>3,643.50</u>	<u>1,685.50</u>	<u>32,074.00</u>	<u>4,300.00</u>	<u>3,500.00</u>	<u>45,203.01</u>

(Contd)

Annexure C (Contd)

Revised Allocation of Approved Outlays in
Annual Plan 1983-84

(Rs.Lakh)

District	Primary Education	Secondary Education	Per University and University Education	Adult Education	Total
1	8	9	10	11	12
1. Greater Bombay	-	-	-	-	-
2. Thane	88.71	106.02	32.46	9.60	236.79
3. Raigad	-	25.95	39.59	-	65.54
4. Ratnagiri	-	-	48.54	-	48.54
<u>KONKAN</u> <u>(excluding G.B)</u>	<u>88.71</u>	<u>131.97</u>	<u>120.59</u>	<u>9.60</u>	<u>350.87</u>
5. Nashik	-	-	-	17.57	17.57
6. Dhule	15.60	22.80	10.77	-	49.17
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	9.56	9.56
9. Pune	7.82	-	-	-	7.82
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	8.13	8.13
12. Solapur	-	137.72	0.91	9.65	148.28
13. Kolhapur	-	45.22	-	-	45.22
<u>WESTERN MAHARASHTRA</u>	<u>23.42</u>	<u>205.74</u>	<u>11.68</u>	<u>44.91</u>	<u>285.75</u>
14. Aurangabad	34.38	135.86	-	0.41	170.65
15. Parbhani	91.63	199.07	44.44	6.23	341.37
16. Beed	46.11	92.68	0.15	-	138.94
17. Nanded	50.98	99.35	-	-	150.33
18. Osmanabad	5.53	-	-	-	5.53
<u>MARATHWADA</u>	<u>228.63</u>	<u>526.96</u>	<u>44.59</u>	<u>6.64</u>	<u>806.82</u>
19. Buldhana	10.40	45.78	36.25	-	92.43
20. Akola	4.54	-	18.35	-	22.89
21. Amravati	-	-	-	-	-
22. Yavatmal	4.80	123.26	27.30	7.61	162.97
23. Wardha	-	-	5.76	-	5.76
24. Nagpur	50.42	-	-	13.18	63.60
25. Bhandara	30.21	54.49	43.84	-	128.54
26. Chandrapur	32.98	192.76	35.04	-	260.78
<u>VIDARBHA</u>	<u>133.35</u>	<u>416.29</u>	<u>166.54</u>	<u>20.79</u>	<u>736.97</u>
<u>MAHARASHTRA STATE</u>	<u>474.11</u>	<u>1,280.96</u>	<u>343.40</u>	<u>81.94</u>	<u>2,180.41</u>
<u>MAHARASHTRA STATE</u> <u>(excluding G.B)</u>	<u>474.11</u>	<u>1,280.96</u>	<u>343.40</u>	<u>81.94</u>	<u>2,180.41</u>
<u>Reserved at State</u> <u>Level</u>	<u>83.67</u>	<u>226.05</u>	<u>60.60</u>	<u>14.46</u>	<u>384.78</u>
<u>TOTAL</u>	<u>557.78</u>	<u>1,507.01</u>	<u>404.00</u>	<u>96.40</u>	<u>2,565.19</u>

(Contd)

Annexure C (Contd)

Revised Allocation of Approved Outlays in
Annual Plan, 1983-84

District	Industrial Training Institutes	Technical High schools etc.*	Polytechnics	Total
1	13	14	15	16
1. Greater Bombay	59.86	-	-	59.86
2. Thane	5.30	0.73	10.81	16.84
3. Raigad	-	7.80	10.89	18.69
4. Ratnagiri	-	5.46	12.22	17.68
<u>KONKAN</u>				
<u>(excluding G.B)</u>	<u>5.30</u>	<u>13.99</u>	<u>33.92</u>	<u>53.21</u>
5. Nashik	5.21	11.99	6.49	23.69
6. Dhule	6.59	0.58	0.16	7.33
7. Jalgaon	14.80	0.30	0.16	15.26
8. Ahmednagar	17.03	8.29	9.89	35.21
9. Pune	22.94	0.18	-	23.12
10. Satara	-	0.24	0.17	0.41
11. Sangli	-	0.21	9.73	9.94
12. Solapur	19.90	0.04	-	19.94
13. Kolhapur	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>86.47</u>	<u>21.83</u>	<u>26.60</u>	<u>134.90</u>
14. Aurangabad	3.97	10.17	10.97	25.11
15. Parbhani	15.54	6.81	8.27	30.62
16. Beed	4.77	0.23	8.27	13.27
17. Nanded	7.58	8.10	3.41	19.09
18. Osmanabad	15.68	5.39	11.60	32.67
<u>MARATHWADA</u>	<u>47.54</u>	<u>30.70</u>	<u>42.52</u>	<u>120.76</u>
19. Buldhana	2.40	8.19	0.16	10.75
20. Akola	9.22	12.47	6.49	28.18
21. Amravati	4.90	17.37	-	22.27
22. Yavatmal	10.55	10.74	3.41	24.70
23. Wardha	-	-	9.73	9.73
24. Nagpur	4.96	7.33	1.62	13.91
25. Bhandara	3.06	5.06	8.27	16.39
26. Chandrapur	8.22	10.66	19.79	38.67
<u>VIDARBHA</u>	<u>43.31</u>	<u>71.82</u>	<u>49.47</u>	<u>164.60</u>
<u>MAHARASHTRA STATE</u>	<u>242.48</u>	<u>138.34</u>	<u>152.51</u>	<u>533.33</u>
<u>(excluding G.B)</u>	<u>182.62</u>	<u>138.34</u>	<u>152.51</u>	<u>473.47</u>
<u>Reserved at State</u>				
<u>Level</u>	<u>42.79</u>	<u>24.41</u>	<u>26.91</u>	<u>94.11</u>
<u>TOTAL</u>	<u>285.27</u>	<u>162.75</u>	<u>179.42</u>	<u>627.44</u>

* Inclusive of Technical High Schools / Centres, Technical Training in Higher Secondary School and Vocational Courses

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Annexure C (Contd)

Revised Allocation of Approved Outlays in
Annual Plan, 1983-84

(Rs. Lakh)

District	Primary Health Sub Centres	Rural Cottage Hospital	Hospital Beds	Water Supply to Villages (Piped and Wells)	Urban Water Supply	Total
1	17	18	19	20	21	22
1. Greater Bombay	-	-	-	-	-	-
2. Thane	19.99	10.74	-	200.28	13.45	244.46
3. Raigad	40.69	5.37	2.92	137.56	31.09	217.63
4. Ratnagiri	25.70	5.37	5.90	964.75	40.34	1,042.06
<u>KONKAN</u> <u>(excl. G.B.)</u>	<u>86.38</u>	<u>21.48</u>	<u>8.82</u>	<u>1,302.59</u>	<u>84.88</u>	<u>1,504.15</u>
5. Nashik	5.00	21.49	7.84	80.02	188.92	303.27
6. Dhule	14.28	21.49	13.50	145.72	174.80	369.79
7. Jalgaon	-	16.12	18.46	362.38	262.74	659.70
8. Ahmednagar	14.99	32.23	6.94	151.32	28.57	234.05
9. Pune	-	10.74	-	165.95	26.89	203.58
10. Satara	9.28	5.37	7.29	36.27	42.19	100.40
11. Sangli	1.43	5.37	-	-	21.01	27.81
12. Solapur	-	10.74	-	81.10	71.43	163.27
13. Kolhapur	12.14	10.74	14.44	14.79	24.54	76.65
<u>WESTERN MAHARASHTRA</u>	<u>57.12</u>	<u>134.29</u>	<u>68.47</u>	<u>1,037.55</u>	<u>841.09</u>	<u>2,138.52</u>
14. Aurangabad	12.14	5.37	4.15	7.42	182.36	211.44
15. Parbhani	-	16.12	17.99	362.18	130.60	526.89
16. Beed	-	10.74	6.29	11.27	51.26	79.56
17. Nanded	-	10.74	12.46	167.32	66.73	257.25
18. Osmanabad	4.99	16.12	23.02	29.30	134.46	207.89
<u>MARATHWADA</u>	<u>17.13</u>	<u>59.09</u>	<u>63.91</u>	<u>577.49</u>	<u>565.41</u>	<u>1,283.03</u>
19. Buldhana	2.86	5.37	9.50	170.18	105.05	292.96
20. Akola	0.71	10.74	0.69	799.83	189.93	1,001.90
21. Amravati	-	10.74	-	367.76	205.05	583.55
22. Yavatmal	12.14	10.74	6.60	77.36	87.40	194.24
23. Wardha	-	-	0.67	167.38	73.31	241.86
24. Nagpur	2.85	5.37	-	293.75	83.77	385.74
25. Bhandara	2.86	16.12	9.70	372.41	87.40	488.49
26. Chandrapur	-	42.98	9.52	531.14	86.46	670.10
<u>VIDARBHA</u>	<u>21.42</u>	<u>102.06</u>	<u>36.68</u>	<u>2,779.81</u>	<u>918.37</u>	<u>3,858.34</u>
<u>MAHARASHTRA STATE</u>	<u>182.05</u>	<u>316.92</u>	<u>177.88</u>	<u>5,697.44</u>	<u>2,409.75</u>	<u>8,784.04</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>182.05</u>	<u>316.92</u>	<u>177.88</u>	<u>5,697.44</u>	<u>2,409.75</u>	<u>8,784.04</u>
<u>Reserved at State Level</u>	<u>32.13</u>	<u>55.96</u>	<u>31.40</u>	<u>1,005.43</u>	<u>425.25</u>	<u>1,550.17</u>
<u>TOTAL</u>	<u>214.18</u>	<u>372.88</u>	<u>209.28</u>	<u>6,702.87</u>	<u>2,835.00</u>	<u>10,334.21</u>

(Contd)

Annexure C (Contd)

<u>Revised Allocation of Approved Outlays</u>					
<u>Annual Plan, 1983-84</u>					
(Rs. Lakh)					
District	Land Development by CADA	Work in non-CADA Areas	Countour Bunding	Terracing	Nala Bunding
1	23	24	25	26	27
1. Greater Bombay	-	-	-	-	-
2. Thane	-	3.92	-	-	32.15
3. Raigad	-	4.47	-	-	-
4. Ratnagiri	-	-	-	221.94	-
<u>KONKAN</u>					
<u>(excl. G.B.)</u>	-	8.39	-	221.94	32.15
5. Nashik	-	95.54	-	-	-
6. Dhule	2.88	-	-	-	-
7. Jalgaon	-	9.07	23.69	-	-
8. Ahmednagar	-	33.93	-	-	-
9. Pune	80.45	35.21	-	-	-
10. Satara	5.68	-	89.76	18.50	-
11. Sangli	107.07	-	-	-	-
12. Solapur	202.17	19.02	-	-	-
13. Kolhapur	57.53	-	-	-	40.61
<u>WESTERN MAHARASHTRA</u>	<u>455.78</u>	<u>192.77</u>	<u>113.45</u>	<u>18.50</u>	<u>40.61</u>
14. Aurangabad	-	24.48	-	-	131.97
15. Parbhani	92.06	10.23	99.11	-	121.14
16. Beed	-	26.91	4.99	-	137.05
17. Nanded	176.84	3.12	5.61	-	134.68
18. Osmanabad	-	47.98	-	-	288.30
<u>MARATHWADA</u>	<u>268.90</u>	<u>112.72</u>	<u>109.71</u>	-	<u>813.14</u>
19. Buldhana	-	24.74	-	-	150.92
20. Akola	-	6.89	122.94	-	79.52
21. Amravati	-	0.01	40.52	-	84.93
22. Yavatmal	18.27	56.65	49.87	-	124.19
23. Wardha	-	1.54	50.49	-	163.10
24. Nagpur	97.67	17.44	2.49	-	157.01
25. Bhandara	-	1.22	-	-	-
26. Chandrapur	-	37.46	177.19	147.96	-
<u>VIDARBHA</u>	<u>115.94</u>	<u>145.95</u>	<u>383.49</u>	<u>147.96</u>	<u>759.67</u>
<u>MAHARASHTRA STATE</u>	<u>840.62</u>	<u>459.83</u>	<u>606.65</u>	<u>388.40</u>	<u>1,645.57</u>
<u>MAHARASHTRA STATE</u>					
<u>(excl. G.B.)</u>	<u>840.62</u>	<u>459.83</u>	<u>606.65</u>	<u>388.40</u>	<u>1,645.57</u>
<u>Revised at State</u>					
<u>Level</u>	<u>148.34</u>	<u>339.99*</u>	<u>107.06</u>	<u>68.54</u>	<u>290.40</u>
<u>TOTAL</u>	<u>988.96</u>	<u>799.82</u>	<u>713.71</u>	<u>456.94</u>	<u>1,935.97</u>

Balance unspent

(Contd)

Annexure C (Concl'd)

Revised Allocations of Approved Outlays in
Annual Plan, 1983-84 (Rs. Lakh)

District	Land Development -cum - Horti- cultural Development	Total Land Deve- lopment-cum- Soil Conservation	Veternary Institutes	Grand Total of All Schemes
1	28	29	30	31
1. Greater Bombay	-	-	-	59.86
2. Thane	13.13	49.20	5.22	1,867.81
3. Raigad	31.37	35.84	0.86	783.26
4. Ratnagiri	-	221.94	5.14	3,316.95
<u>KONKAN (Excl G.B)</u>	<u>44.50</u>	<u>306.98</u>	<u>11.22</u>	<u>5,968.02</u>
5. Nashik	-	95.54	2.57	1,703.92
6. Dhule	-	2.88	1.71	1,611.68
7. Jalgaon	-	32.76	11.27	1,449.46
8. Ahmednagar	-	33.93	27.50	1,922.54
9. Pune	-	115.66	3.42	1,961.30
10. Satara	-	113.94	0.86	838.60
11. Sangli	-	107.07	6.85	1,371.95
12. Solapur	-	221.19	15.21	2,859.29
13. Kolhapur	156.70	254.84	-	441.57
<u>WESTERN MAHARASHTRA</u>	<u>156.70</u>	<u>977.81</u>	<u>69.39</u>	<u>14,160.31</u>
14. Aurangabad	-	156.45	6.00	2,259.69
15. Parbhani	-	322.54	21.59	2,177.85
16. Beed	0.88	169.83	11.35	2,862.55
17. Nanded	-	320.25	35.00	1,288.52
18. Osmanabad	-	336.28	11.22	3,509.08
<u>MARATHWADA</u>	<u>0.88</u>	<u>1,305.35</u>	<u>85.16</u>	<u>12,097.69</u>
19. Buldhana	-	175.66	-	2,401.39
20. Akola	-	209.35	1.88	3,565.49
21. Amravati	0.84	126.30	-	3,704.37
22. Yavatmal	-	248.98	13.92	3,263.10
23. Wardha	-	215.13	1.72	1,503.44
24. Nagpur	-	274.61	-	1,233.97
25. Bhandara	-	1.22	-	1,165.70
26. Chandrapur	-	302.61	38.12	5,162.40
<u>VIDARBHA</u>	<u>0.84</u>	<u>1,553.85</u>	<u>55.64</u>	<u>21,999.85</u>
<u>MAHARASHTRA STATE</u>	<u>202.92</u>	<u>4,143.99</u>	<u>221.41</u>	<u>54,285.73</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G. B.)</u>	<u>202.92</u>	<u>4,143.99</u>	<u>221.41</u>	<u>54,225.87</u>
<u>Reserved at State</u> <u>Level</u>	<u>35.81</u>	<u>990.14</u>	<u>39.07</u>	<u>9,838.73</u>
<u>TOTAL</u>	<u>238.73</u>	<u>5,134.13</u>	<u>260.48</u>	<u>64,124.46</u>

CHAPTER XVIII

REPRESENTATION IN THE SERVICES

18.1. We have so far covered all our terms of reference to the best of our ability. In this Chapter, we shall turn to an item which, though not directly referred to us, is obviously germane to the problem of regional disparities in development, namely, regional representation in the services under the control of the State Government. Moreover, it has figured as a major element in the historical perspective of the regional feeling in Maharashtra. The Nagpur Agreement explicitly requires that the three regions of Vidarbha, Marathwada, and the rest of Maharashtra will be given representation in proportion to population in the services, of all grades, under Government control and Government-controlled enterprises. However, no specific mechanism has so far been created to ensure this. In its absence, no firm evidence can be presented one way or the other.

18.2. On a reference made to the Law and Judiciary Department, we understand that no specific statutory provisions could be made for this purpose because reservation of posts on the basis of divisional or regional population would be discriminatory on the ground of place of birth or residence and would be struck down as violative of Article 16(2) of the Constitution. Article 371(2) of the Constitution which was entered with the explicit intention of according constitutional recognition to the Nagpur Agreement, as far as practicable, eschews the phrase "representation in proportion to population". Evidently, it was not considered practicable, and it was substituted by the vaguer phrase "adequate opportunities for employment subject to the requirements of the State as a whole". Hence we do not feel certain that even invoking the provisions of Article 371(2) will enable an unqualified statutory provision to be made for regional representation in services in proportion to population. But we believe that the demand is legitimate and that it should be possible to examine it on practical grounds and make provisions and promote an understanding to that effect to the extent practicable.

Recruitment to Class III & IV Posts:

18.3. On a reference made by us, the General Administration Department has informed us that recruitment to Class III and Class IV posts in Government, which are the most numerous, is highly localised and that therefore the recruitment to these posts is unlikely to be regionally biased. A brief account of the efforts made in the past few years to improve matters may be of interest.

18.4. Prior to the establishment of the State Selection Board on 15th November, 1976, recruitment to Class III and Class IV Government services was made by the concerned Appointing Authorities by obtaining lists of suitable persons from local employment exchanges. In the case of Class III recruitment, the Appointing Authorities were assisted by Selection Committees consisting of Government officials. The recruitment to these posts was thus essentially localised and was unlikely to be regionally biased.

18.5. On 15th November, 1976, the State Selection Board was constituted at Aurangabad under the Maharashtra Public Services (Subordinate) Selection Boards Act, 1973, for the purpose of recruitment to the Class III and Class IV posts of the State Government, Zilla Parishads, and Municipal Councils. In 1978, Class IV services were excluded from the purview of this Board. Since then, the recruitment to these posts is being made as before by the Appointing Authorities by obtaining candidates from the local employment exchange or from the Social Welfare Officer. The recruitment is thus highly localised and is unlikely to be affected by regional bias.

18.6. The State Selection Board functioned for 4 years from November, 1976 to October, 1980. Regional Selection Benches of the Selection Board were constituted for the purpose of selecting candidates for posts in the different regions of the State. These benches advertised vacancies in the newspapers circulating in the area and also invited lists of candidates from the Employment Exchanges in the area. The names of selected candidates were forwarded by the Selection Bench to the Appointing Authority concerned through the State Selection Board.

18.7. But, the number of candidates to be selected even for Class III posts was enormously large and the work of the Board became very unwieldy. There were inordinate delays in the selection of candidates. The candidates were sometimes given appointments at places away from their home districts causing hardships in individual cases. Complaints against the functioning of the Board in the selection of candidates were also received. Hence, the Government decided to dissolve the State Selection Board and to set up six Regional Selection Boards. An ordinance to that effect was promulgated on 21-10-80.

18.8. The six Regional Selection Boards were constituted at Thane, Nashik, Pune, Aurangabad, Akola and Nagpur covering respectively the areas of Konkan, Nashik, Pune, Aurangabad, Amravati and Nagpur Revenue Divisions. These Boards were entrusted with the work of selecting candidates for Class III services in the respective regions. A special Selection Board was also established at Pune for State Level Class III posts. Apart from the Nashik Selection Board, other Boards had not commenced work of selecting candidates for appointment by direct recruitment till 18-6-83.

18.9. Serious complaints were received in respect of the functioning of the Nashik Regional Selection Board and an investigation and enquiry was ordered to be made in respect of it. In view of these circumstances, an Ordinance was promulgated on 18-6-1983 by which all the Regional Selection Boards and the Special Selection Board were dissolved and the law relating to them was repealed. The Ordinance has since been converted into an Act.

18.10. Since then recruitment to Class III posts, except the Ministerial posts in Government offices in Greater Bombay and certain important executive posts such as Sales Tax Inspectors, Sub-Inspectors of Police, Range Forest Officers, are made by the respective Heads of Departments for which purpose they must obtain a list of eligible candidates from the Employment Exchanges. Recruitment to these posts is thus localised and is unlikely to be affected by regional bias.

18.11. Recruitment to the posts of Sales Tax Inspectors, Range Forest Officers, and Sub-Inspectors of Police is done through the MPSC on the basis of competitive examinations and candidates from districts get equal opportunity to appear. Prior to 1978, recruitment to the posts of Police Sub-Inspectors was entrusted to the Senior Officers within the Police Department under the general supervision of the Inspector General of Police. In that year, Government decided, in consultation with the MPSC, to entrust this recruitment to the Maharashtra Public Service Commission. Subsequently, in the year 1981, Government decided to constitute an independent Board for the selection of Police Sub-Inspectors and also the Constables. This Board, called the Maharashtra State Police Service (Non-Gazetted) Selection Board, came into existence with effect from 1st August 1981. After evaluating the work done by the Board, Government came to the conclusion that there was no necessity of having an independent Board for this purpose involving an annual expenditure of about Rs.7 lakh. Government accordingly decided to abolish the Board and to entrust the work of selection of Police Sub-Inspectors to the MPSC. Accordingly, the selection of candidates for the posts of Police Sub-Inspectors is now done by the Public Service Commission for the whole of the State.

18.12. So far as recruitment of Constables in Armed and Unarmed Branches and the State Reserve Police Force is concerned, the recruitment was being done by the District Superintendent of Police/Commissioner of Police and the Commandants of the State Reserve Police Force. In 1981, Government decided to entrust the work of selection of Constables for the Armed and Unarmed Branches and also in the State Reserve Police Force to the Police Selection Board. After the abolition of the Board, the work of selection of constables has gone back to the District Superintendent of Police/Commissioner of Police (in the Commissionerate Area) and the Commandants, State Reserve Police

Force who have to make selection with the assistance of the Resident Deputy Collector. Thus the selection of candidates for the posts of Constables in the Armed and Unarmed Branch and in the State Reserve Police Force is done at the District/Commissionerate or the Commandant's level.

Districtwise State Government Employment:

18.13. However, in spite of these recruitment rules and the fact that the bulk of recruitment in Class III and Class IV is essentially localised, there prevails a feeling that, because of the present concentration of the offices of the State Government in Bombay and Pune, Vidarbha and Marathwada remain under-represented in the services. Hence, we may examine the extent of present imbalance in this respect. In Table 18.1, we show the employees of the Government of Maharashtra as on 1-7-1981 stationed in different districts according to a census conducted by the Directorate of Economics & Statistics. They totalled 500,542 of which 300,164 were Class III employees, 94,394 were Class IV employees, and 84,156 were other employees; the other employees include a large number of Kotwals, about 32,000 in number, and daily workers, worked-charged labour, etc., who are all essentially locally recruited. Class I and Class II officers numbered 18,718.

18.14. In Table 18.2 the number of employees is related to the 1981 population of the districts. However, before doing this, it is necessary to correct the number of Government employees shown in col. 2; this is necessary because of the very uneven distribution between districts of the secondary school teachers who are government servants. We had earlier referred to the large number of ex-government schools mainly in Marathwada. Though these schools are presently under the management of the Zilla Parishads, the teachers continue to be government servants. The few government secondary schools in the State are also very unevenly distributed between the districts. For these reasons, while relating the number of government employees to population, we should keep out the secondary school teachers in government schools or ex-government schools now under the management of the Zilla Parishads. This number is shown in col. 3 of the Table. In col. 5, the number of government employees other than secondary school teachers (col. 2 - col. 3) is shown as percentage of the total population of the district. It will be noticed that excluding the 124 employees stationed at Delhi and Goa, the employees constitute 0.78 per cent or 7.8 per thousand of the population. In the last column of the Table is shown the adjustment (+/-) needed to make the employees bear the same proportion to population in all districts. On this basis, a certain number of employees will have to be shifted out of the following districts and added to the other districts:

Table 18.1

Government Employees of Maharashtra State (as on 1-7-1981)

District	Class I + II	Class III	Class IV	Others	Total
1	2	3	4	5	6
1. Greater Bombay	4,833	56,577	18,169	8,666	88,245
2. Thane	884	16,378	5,518	3,826	26,606
3. Raigad	232	5,474	1,997	1,173	8,876
4. Ratnagiri	341	7,306	3,167	5,009	15,823
<u>BOMBAY DIVISION</u>	<u>6,290</u>	<u>85,735</u>	<u>28,851</u>	<u>18,674</u>	<u>135,550</u>
5. Nashik	685	12,579	4,178	2,773	20,215
6. Dhule	290	8,437	2,417	2,060	13,204
7. Jalgaon	333	8,249	2,608	1,650	12,840
8. Ahmednagar	373	9,823	2,723	1,798	14,717
<u>NASHIK DIVISION</u>	<u>1,681</u>	<u>39,088</u>	<u>11,926</u>	<u>8,281</u>	<u>60,976</u>
9. Pune	2,178	34,435	10,106	6,635	53,354
10. Satara	429	8,843	2,902	3,277	15,451
11. Sangli	379	6,081	2,062	2,739	11,261
12. Solapur	630	9,222	2,808	3,647	16,307
13. Kolhapur	590	8,627	3,102	3,789	16,108
<u>PUNE DIVISION</u>	<u>4,206</u>	<u>67,208</u>	<u>17,878</u>	<u>20,087</u>	<u>112,481</u>
14. Aurangabad	1,058	13,257	5,013	4,177	23,505
15. Parbhani	338	7,099	2,373	4,671	14,481
16. Beed	366	6,172	2,131	3,008	11,677
17. Nanded	329	6,858	2,360	1,719	11,266
18. Osmanabad	250	6,011	2,000	3,448	11,709
<u>AURANGABAD DIVISION</u>	<u>2,341</u>	<u>39,397</u>	<u>13,877</u>	<u>17,023</u>	<u>72,638</u>
19. Buldhana	254	5,250	1,559	2,922	9,985
20. Akola	322	7,099	2,089	1,530	11,040
21. Amravati	669	8,230	2,671	1,577	13,147
22. Yavatmal	308	7,021	1,857	1,667	10,853
<u>AMRAVATI DIVISION</u>	<u>1,553</u>	<u>27,600</u>	<u>8,176</u>	<u>7,696</u>	<u>45,025</u>
23. Wardha	193	4,389	1,211	1,802	7,595
24. Nagpur	1,810	21,612	7,947	3,664	35,033
25. Bhandara	299	6,383	1,959	3,202	11,843
26. Chandrapur	343	8,701	2,506	3,727	15,277
<u>NAGPUR DIVISION</u>	<u>2,645</u>	<u>41,085</u>	<u>13,623</u>	<u>12,395</u>	<u>69,748</u>
<u>MAHARASHTRA STATE</u>	<u>18,718</u>	<u>300,164</u>	<u>94,394</u>	<u>84,156</u>	<u>500,542</u>
27. Delhi & Goa	2	51	63	-	124
<u>MAHARASHTRA STATE (excl. Goa & Delhi)</u>	<u>18,716</u>	<u>300,113</u>	<u>94,331</u>	<u>84,156</u>	<u>500,418</u>

Table 18.2

Government Employees in Relation to 1981 Population

District	Government Employees	Government Employed Teachers in Secondary Schools	Col. (2) - Col. (3)	Col (4) as Percentage to 1981 Population	Government Employees Required @ Avarage	Difference Col (6) - Col (4)
1	2	3	4	5	6	7
1.Greater Bombay	88,245	38	88,207	1.07	64,411	(-)23,796
2.Thane	26,606	65	26,541	0.79	26,188	(-) 353
3.Raigad	8,876	-	8,876	0.60	11,615	(+) 2,739
4.Ratnagiri	15,823	-	15,823	0.75	16,497	(+) 674
<u>BOMBAY DIVISION</u>	<u>139,550</u>	<u>103</u>	<u>139,447</u>	<u>0.92</u>	<u>118,711</u>	<u>(-)20,736</u>
5.Nashik	20,215	24	20,191	0.67	23,376	(+) 3,185
6.Dhule	13,204	73	13,131	0.64	16,020	(+) 2,889
7.Jalgaon	12,840	16	12,824	0.49	20,458	(+) 7,634
8.Ahmednagar	14,717	-	14,717	0.54	21,162	(+) 6,445
<u>NASHIK DIVISION</u>	<u>60,976</u>	<u>113</u>	<u>60,863</u>	<u>0.59</u>	<u>81,016</u>	<u>(+)20,153</u>
9.Pune	53,354	-	53,354	1.28	32,539	(-)20,815
10.Satara	15,451	41	15,410	0.76	15,929	(+) 519
11.Sangli	11,261	-	11,261	0.61	14,308	(+) 3,047
12.Solapur	16,307	22	16,285	0.62	20,395	(+) 4,110
13.Kolhapur	16,108	77	16,031	0.64	19,583	(+) 3,552
<u>PUNE DIVISION</u>	<u>112,481</u>	<u>140</u>	<u>112,341</u>	<u>0.85</u>	<u>102,754</u>	<u>(-) 9,587</u>
14.Aurangabad	23,505	1,760	21,745	0.89	19,014	(-) 2,731
15.Parbhani	14,481	1,498	12,983	0.71	14,294	(+) 1,311
16.Beed	11,677	980	10,697	0.72	11,611	(+) 914
17.Nanded	11,266	1,450	9,816	0.56	13,669	(+) 3,853
18.Osmanabad	11,709	2,271	9,438	0.42	17,429	(+) 7,991
<u>AURANGABAD DIVISION</u>	<u>72,638</u>	<u>7,959</u>	<u>64,679</u>	<u>0.66</u>	<u>76,017</u>	<u>(+)11,338</u>
19.Buldhana	9,985	152	9,833	0.65	11,789	(+) 1,956
20.Akola	11,040	289	10,751	0.59	14,275	(+) 3,524
21.Amravati	13,147	305	12,842	0.69	14,544	(+) 1,702
22.Yavatmal	10,853	296	10,557	0.61	13,576	(+) 3,019
<u>AMRAVATI DIVISION</u>	<u>45,025</u>	<u>1,042</u>	<u>43,983</u>	<u>0.63</u>	<u>54,184</u>	<u>(+)10,201</u>
23.Wardha	7,595	88	7,507	0.81	7,240	(-) 267
24.Nagpur	35,033	175	34,858	1.35	20,228	(-)14,630
25.Bhandara	11,843	83	11,760	0.64	14,358	(+) 2,598
26.Chandrapur	15,277	145	15,132	0.74	16,062	(+) 930
<u>NAGPUR DIVISION</u>	<u>69,748</u>	<u>491</u>	<u>69,257</u>	<u>0.95</u>	<u>57,888</u>	<u>(-)11,369</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>500,418</u>	<u>9,848</u>	<u>490,570</u>	<u>0.78</u>	<u>490,570</u>	<u>-</u>

<u>District</u>	<u>Number of employees to be shifted out</u>
Greater Bombay	23,796
Thane	353
Pune	20,815
Aurangabad	2,731
Wardha	267
Nagpur	14,630

18.15. Of these, Greater Bombay, Pune, Aurangabad, and Nagpur are the Divisional Headquarters and a part of the staff located in these districts is clearly divisional staff. Moreover, in the present context, it seems appropriate to consider to what extent government employment could be equalised between divisions rather than between districts. Hence, we may examine only the divisional position. In the following, we list the divisions out of which a certain number of employees will have to be shifted and the divisions to which they will have to be added if employment in the divisions is to be equalised on the basis of population.

<u>Division</u>	<u>Excess</u>	<u>Division</u>	<u>Deficit</u>
Bombay	20,736	Nashik	20,153
Pune	9,587	Aurangabad	11,338
Nagpur	11,369	Amravati	10,201
	-----		-----
	41,692		41,692
	-----		-----

18.16. It will be noticed that Bombay, Pune and Nagpur Divisions have an excess and Nashik, Aurangabad and Amravati Divisions have a deficit. As it happens, the excess in Bombay Division is nearly matched by the deficit in Nashik Division; the excess in Pune Division is nearly matched by the deficit in Aurangabad Division; and the excess in Nagpur Division is matched by the deficit in Amravati Division. Hence, there is an obvious case for shifting some of the offices from Bombay to Nashik, from Pune to Aurangabad, and from Nagpur to Amravati.

18.17. But a part of what appears as excess in Bombay is due to the location of Mantralaya Departments which, as we shall presently see, need to be in Bombay. A considerable part of the excess is also because of the particular needs of Bombay City, namely the police, hospitals and the Milk Scheme. But there are a large number of offices of the Heads of Departments located in Bombay which need not be located in Bombay and should be shifted out conveniently to Nashik. In Annexure A, we give a list of these offices and their present location.

18.18. It will be seen that a large number of these offices are also located in Pune and there is a clear case of some of them being shifted out preferably to Aurangabad. Between Nagpur

and Amravati we may note that Amravati is a new division carved out of the old Nagpur Division. Hence, presumably, a part of the imbalance may get automatically corrected. Nevertheless, a deliberate policy to this effect will be necessary.

18.19. It may be said that past efforts to shift offices have failed mainly because of the resistance from the present employees. It also underlines the fact that shifting of offices will not immediately create new employment opportunities for the local persons, but in the long run, it will, and a beginning has to be made. This will need explicit policy and a systematic effort.

A Note:

18.20. The number of State Government employees given in Table 18.1 is based on a census of State Government employees taken by the Directorate of Economics & Statistics. For reasons explained in para 18.14, we have deducted, from the reported number, the number of secondary school teachers in Government and ex-Government schools now under the management of the Zilla Parishads. Among these, the secondary school teachers in the ex-Government schools presently under the management of the Zilla Parishads are the more numerous and we had supposed that, as Government servants, they were enumerated in the census. But it seems that this has not happened. For instance, in Aurangabad Division, the total number of employees in the Education Department enumerated in the census is 3,312 while the number of secondary school teachers in schools under the management of the Zilla Parishads is 7,901. It seems therefore that the deduction of their number from the reported number of employees was unwarranted. If we accept the number of employees as enumerated in the census, the excess and deficit in different divisions would appear as under:

<u>Division</u>	<u>Excess</u>	<u>Division</u>	<u>Deficit</u>
Bombay	18,457	Nashik	21,667
Pune	7,663	Aurangabad	4,904
Nagpur	10,698	Amravati	10,247
	-----		-----
Total:	36,818		36,818
	=====		=====

Thus, it seems that the deficit in the Aurangabad Division might be only 4,904 and not 11,338 as indicated above.

Recruitment to Ministerial Posts in Government Offices in Greater Bombay, including Mantralaya Departments:

18.21. We may next consider the Mantralaya Departments which must be located near the Council of Ministers, that is in Bombay. For reasons of administrative convenience also, the Mantralaya departments need to be located together; for instance, all departments need constant and quick communication with the General Administration Department and the Finance Department. In

brief, shifting of some of the Mantralaya departments out of Bombay is not a practicable proposition. Nevertheless, regional representation in these offices is obviously important. Hence, a brief account of the recruitment procedure to the ministerial posts in the Mantralaya departments and other offices of the State Government in Greater Bombay may be useful. The present cadre strength of the various posts in Mantralaya Departments is roughly 4,200 as follows:

Clerks	1,800
Assistants	1,465
Superintendents	233
Assistant Secretaries	363
Under Secretaries	200
Deputy Secretaries	139

Of these, Clerks (that is clerks, typists, and stenographers) and Assistants are Class III posts. Recruitment to these posts is made on the basis of competitive examination, held by the Maharashtra Public Service Commission (MPSC). Since these are competitive examinations, it is not possible to ensure that persons from various districts or regions get selected in proportion to population. All that Government can ensure is that persons from all regions get equal opportunity to appear for these examinations. For this purpose, the examinations are held at all district headquarters.

18.22. In Table 18.3. we give districtwise number of candidates who applied (col.2), and appeared (col.3) for the competitive examination held in 1982 for recruitment to the clerical posts in Government offices in Greater Bombay. In col.4 is given the number of successful candidates. In cols. 5,6 and 7, the same numbers are shown per million population. It will be seen that there are large differences between the districts. From a number of districts, no candidates seem to appear. These are : Jalgaon, Ahmednagar, Satara, Sangli, Beed, Osmanabad; Buldhana, Akola, Wardha and Bhandara. Regionwise, a very large number per million population, seem to apply and appear from Greater Bombay and also from Vidarbha, almost all from Nagpur and Amravati districts. The differences between the other three regions are not large. The number, per million population, applying are 3,750.02 from Greater Bombay, 1,367.82 from Vidarbha, 827.27, from Western Maharashtra, 794.18 from Konkan and 783.76 from Marathwada. The number, per million population, appearing is 3,026.54 from Greater Bombay, 1,082.95 from Vidarbha, 628.12 from Western Maharashtra, 603.80 from Konkan and 573.97 from Marathwada. But the passing percentages are very different in different districts so that the number of successful candidates, per million population, is 177.64 from Greater Bombay, 29.07 from Konkan, 18.13 from Vidarbha, 13.73 from Western Maharashtra and 7.81 from Marathwada.

18.23. In Table 18.4, we give the districtwise number of candidates recommended by the MPSC and appointed/allotted by the Government. In cols. 2 and 4 are given the number of clerks, in

Table 18.3

Competitive Examination Held by MPSC in 1982 For Recruitment to the
Clerical Posts in Government Offices in Greater Bombay.

District	Number of Candidates Applied for Exam.	Number of Candidates Appeared for Exam.	Number of Succ- essful Candidates	Proportion per Million of		
				Col.(2)	Col.(3)	Col.(4)
1	2	3	4	5	6	7
1. Greater Bombay	30,913	24,949	1,466	3,750.02	3,026.54	177.84
2. Thane	4,221	3,426	175	1,259.41	1,022.21	52.21
3. Raigad	557	270	15	374.72	181.64	10.09
4. Ratnagiri	741	500	12	350.97	236.82	5.68
<u>KONKAN (excl. G.B.)</u>	<u>5,519</u>	<u>4,196</u>	<u>202</u>	<u>794.18</u>	<u>603.80</u>	<u>29.07</u>
5. Nashik	2,898	2,213	29	968.67	739.70	9.69
6. Dhule	3,837	2,994	52	1,870.83	1,459.80	25.35
7. Jalgaon	-	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-	-
9. Pune	4,981	3,616	132	1,196.07	868.30	31.70
10. Satara	-	-	-	-	-	-
11. Sangli	-	-	-	-	-	-
12. Solapur	4,135	3,303	54	1,584.20	1,014.12	20.69
13. Kolhapur	3,606	2,647	56	1,438.76	1,056.13	22.34
<u>WESTERN MAHARASHTRA</u>	<u>19,457</u>	<u>14,773</u>	<u>323</u>	<u>827.27</u>	<u>628.12</u>	<u>13.73</u>
14. Aurangabad	3,033	2,174	31	1,246.39	893.39	12.74
15. Parbhani	1,926	1,392	19	1,052.82	760.91	10.39
16. Beed	-	-	-	-	-	-
17. Nanded	2,666	2,018	26	1,524.01	1,153.58	14.86
18. Osmanabad	-	-	-	-	-	-
<u>MARATHWADA</u>	<u>7,625</u>	<u>5,584</u>	<u>76</u>	<u>783.76</u>	<u>573.97</u>	<u>7.81</u>
19. Buldhana	-	-	-	-	-	-
20. Akola	-	-	-	-	-	-
21. Amravati	5,082	3,956	47	2,730.19	2,125.27	25.25
22. Yavatmal	1,654	1,278	16	951.98	735.57	9.21
23. Wardha	-	-	-	-	-	-
24. Nagpur	10,913	8,776	184	4,215.45	3,389.97	71.08
25. Bhandara	-	-	-	-	-	-
26. Chandrapur	1,970	1,523	13	958.34	740.89	6.32
<u>VIDARBHA</u>	<u>19,619</u>	<u>15,533</u>	<u>260</u>	<u>1,367.82</u>	<u>1,082.95</u>	<u>18.13</u>
<u>MAHARASHTRA STATE</u>	<u>83,133</u>	<u>65,035</u>	<u>2,327</u>	<u>1,324.11</u>	<u>1,035.85</u>	<u>37.06</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>52,220</u>	<u>40,086</u>	<u>861</u>	<u>957.45</u>	<u>734.97</u>	<u>15.78</u>

Table 18.4

Candidates Recommended by MPSC in 1982

District	Clerks		Assistants		Assistant Secretaries Recommended	
	Recommended by MPSC	Appointed	Recommended by MPSC	Candidates Allotted ----- Joined Not-Joined		
1	2	3	4	5	6	7
1. Greater Bombay	636	356	103	44	43	6
2. Thane	218	140	20	7	10	2
3. Raigad	11	4	-	-	-	1
4. Ratnagiri	17	13	-	-	-	-
<u>KONKAN (excl. G.B.)</u>	<u>246</u>	<u>157</u>	<u>20</u>	<u>7</u>	<u>10</u>	<u>3</u>
5. Nashik	7	3	22	8	10	1
6. Dhule	16	10	2	1	-	1
7. Jalgaon	19	13	5	1	1	2
8. Ahmednagar	10	9	4	2	2	-
9. Pune	85	63	20	5	11	7
10. Satara	10	5	3	1	2	1
11. Sangli	13	9	2	1	-	1
12. Solapur	41	34	8	1	5	-
13. Kolhapur	33	25	7	5	1	-
<u>WESTERN MAHARASHTRA</u>	<u>234</u>	<u>171</u>	<u>73</u>	<u>25</u>	<u>32</u>	<u>13</u>
14. Aurangabad	13	8	17	7	8	1
15. Parbhani	4	3	1	-	1	1
16. Beed	6	5	2	-	2	2
17. Nanded	8	7	8	2	2	-
18. Osmanabad	4	3	1	1	-	-
<u>MARATHWADA</u>	<u>35</u>	<u>26</u>	<u>9</u>	<u>10</u>	<u>13</u>	<u>2</u>
19. Buldhana	5	2	2	-	1	-
20. Akola	5	3	8	2	2	1
21. Amravati	12	10	10	1	5	1
22. Yavatmal	19	9	4	1	1	-
23. Wardha	11	7	2	-	2	-
24. Nagpur	84	50	45	10	23	4
25. Bhandara	11	8	5	-	4	-
26. Chandrapur	2	1	8	2	4	-
<u>VIDARBHA</u>	<u>149</u>	<u>90</u>	<u>84</u>	<u>16</u>	<u>42</u>	<u>6</u>
<u>MAHARASHTRA STATE</u>	<u>1,300</u>	<u>800</u>	<u>289</u>	<u>102</u>	<u>140</u>	<u>30</u>
<u>MAHARASHTRA STATE (excl. G.B.)</u>	<u>664</u>	<u>444</u>	<u>186</u>	<u>58</u>	<u>97</u>	<u>24</u>

cols. 4,5 and 6 are the number of assistants. It will be noticed that, out of the 1,300 candidates recommended by the MPSC in 1982 for the posts of clerks, 854 were from Greater Bombay and Thane. Out of the 800 appointed as clerks, 495 were from Greater Bombay and Thane. Out of the 289 candidates recommended by the MPSC for the posts of assistants, 129 were from Greater Bombay and Thane; and out of the 142 candidates allotted for the posts of assistants, 104 were from Greater Bombay and Thane.

18.24. Moreover, candidates from mofussil areas selected for the posts of clerks and assistants in Bombay are often reluctant to accept jobs in Bombay because of problems of accommodation, transport, high cost of living, etc. They make persistent representations for transfers out of Bombay. Since the posts are not transferable, it becomes difficult to accommodate their requests. The Government has now issued orders that the candidates selected by the MPSC for appointment to clerical posts in Greater Bombay may be considered for transfer outside Bombay, on certain conditions, after they have put in three years of service.

18.25. Superintendents are Class II posts while Assistant Secretaries, Under Secretaries, and Deputy Secretaries are Class I posts. Shri M.N. Heble, in his Report on the Reorganization of Maharashtra Administration (1971), thought it desirable to ensure certain mobility of staff between the Headquarters and the field. With this in view, he made the following recommendations:

" At least a certain percentage of the posts in Sachivalaya at the Assistants' level and above should be filled by staff drawn from the offices of the Executive Departments. The staff recruited directly into the Secretariat should not be held eligible for promotion beyond the stage of Superintendent until they have completed at least three years' service in a post in an Executive Department, outside the Secretariat. At the level of the Under Secretaries and above also there should be a considerable amount of recruitment from the Executive Departments. It would be necessary for Government to provide adequate accommodation at Bombay for those brought over from the mofussil to Bombay and in the mofussil for those transferred from Bombay. "

18.26. In August, 1976, Government framed revised Recruitment Rules for the posts of Superintendents providing for appointment by transfer to the extent of 50% from the cadre of Tahsildars or from any cadre of Class II service; 25% by nomination from open market and 25% by promotion from the cadre of Assistants. Similarly, the Recruitment Rules for the posts of Assistants were also changed providing for appointment by transfer to the extent of 50% from the cadre of Awal Karkuns or persons holding posts equivalent to the posts of Awal Karkuns from any cadre or Service in Class III; 25% by nomination and 25% by promotion. The provision made in 1976 rules for appointment by transfer to the posts of Superintendents and Assistants had, however, to be deleted in the year 1979 on the ground that such appointments by

transfer from Mofussil to Bombay, and vice-versa, was not considered practicable and administratively convenient due to housing and other related problems. Today, therefore, the position is that the posts of Assistants in Mantralaya Departments are filled in by direct recruitment and by promotion in the ratio of 75 : 25. All the posts of Superintendents are filled in by promotion from the cadre of Assistants.

18.27. A provision has been made in the Recruitment Rules for the posts of Assistant Secretaries that one-third of the permanent posts should be filled in by direct recruitment. Accordingly, about 84 posts of Assistant Secretaries are to be filled in by direct recruitment. It was decided to make direct recruitment to these posts in a phased manner. The Public Service Commission has recently recommended 30 direct recruits for appointment to the posts of Assistant Secretaries. In Col. (7) Table 18.4, we give their district-wise number. It will be seen therefrom that persons recommended by the Commission are from several districts in the State.

18.28. Government has experienced various administrative problems in managing the cadre of Assistant Secretaries. Bulk of the posts of Assistant Secretaries are filled in from the cadre of Superintendents which consists of only 253 posts. It was, therefore, very difficult to find suitable officers for manning the posts of Assistant Secretaries. A proposal is, therefore, under consideration to amalgamate the existing cadre of Superintendents and the Assistant Secretaries to form a new cadre of Section Officers in Class II service. The question whether there should be any element of direct recruitment in this new Class II cadre is being examined in consultation with the MPSC. The new Class II cadre of Section Officers will have roughly a strength of 600 officers.

18.29. In August, 1976, a provision was also made in the Recruitment Rules for the posts of Under Secretaries/Deputy Secretaries that the persons working as Under Secretaries or Deputy Secretaries shall be liable for transfer anywhere in the State. However, on the advice of the L. & J.D. the provision for transfer had to be deleted on the ground that it affected the service conditions of the allocated Government Servants. The L. & J.D. had advised that the provision of transfer of Under Secretaries/Deputy Secretaries would mean variation of conditions of service of employees who were in service prior to 1st May, 1960 and that, if Government wanted to change the service conditions of allocated persons, the approval of the Government of India would be required. The Government of India turned down the proposal, stating that at no stage they thought in terms of rotating Secretariat Officers with the field officers for the very simple reason that the Secretariat service is meant only to do a particular job at the lower level, which does not require any field experience. Apart from this, in view of the difficulties which the Secretariat officers whose services were non-transferable would have to face by transfer outside Bombay, the entire question of transfer was reconsidered by Government

and it was decided not to make the Secretariat officers transferable outside Bombay. The provision made previously in the rules, making services of Section Officers transferable, was therefore deleted from the Recruitment Rules.

18.30. Accommodation available for Government Servants in Bombay is limited. It is roughly as follows: Class I - 716; Class II & III - 5,958. All Class I officers who have been allotted Class I quarters are transferable. As for Class II and Class III Government Servants, the information as to how many quarters are occupied by non-transferable Government Servants is not available. Officers in the following categories are still on the waiting list for allotment of quarters: Class I - 241; Class II - 477; and Class III - 2,828.

18.31. Thus, while shifting of some of the Mantralaya departments out of Bombay is not practicable, rotating some of the Mantralaya officers with the corresponding officers in the districts has also not proved practicable. But, regional representation in the Mantralaya Departments is important and relevant. We suggest that it will be advisable to ascertain the present position by means of a census in which each employee's district of birth and of passing the higher secondary or equivalent examination are recorded.

18.32. But, insistence on regional representation in services strictly in proportion to population will require invoking the provisions of Article 371(2). We do not think that, bearing in mind the requirements of the State as a whole, the present situation warrants this extreme remedy.

Public Sector Corporations of State Government:

18.33. We have already said that some of the offices of the Heads of Departments, presently concentrated in Bombay and Pune, need to be relocated. We should also consider relocation of offices of the public sector corporations of the State Government. From the point of view of employment, Maharashtra State Electricity Board and Maharashtra State Transport Corporation are important; but much of their employment is already localised. Employment in the head offices of the public sector corporations generally is not very large. Nevertheless, their present locations deserve to be reviewed. In Annexure B is given a list of the corporations with their present locations. Incidentally, against each corporation, we show their present Chairmen and the districts from which they come from. In Annexure C we give districtwise distribution of the members of their Boards of Directors. The matter was raised with us on many occasions during our district tour.

18.34. While one would recognise the physical and human problems of relocating existing offices, we should emphasise that no new offices of heads of departments or public sector corporations of the State Government or new State Government institutions, must be located in Bombay and Pune any more; they

should be located in Aurangabad, Nashik and Amravati.

18.35. Finally, we should mention that accelerated development in the districts lagging behind will require strengthening of their administration in the specific departments as also in the general administration. We recommend that the present staff strength in various departments in different districts be immediately reviewed and the administration be strengthened wherever necessary.

Annexure A

List of Offices of Heads of Departments located at
District Head Quarters

Greater Bombay

1. Director of Archives.
2. Director of Languages.
3. Executive Editor Gazetters Department.
4. Director Government Transport Service.
5. Director of Administrative Staff College.
6. Director General of Information & Public Relation.
7. Director of Information and Publicity
(Community Radio and Television).
8. Director of Public Prosecution.
9. Commissioner of Prohibition and Excise, Bombay.
10. Transport Commissioner
(Director Government Transport Service).
11. Director General of Police.
12. Director, Research Forensic Science Laboratory.
13. Director, Anti Corruption Bureau.
14. Director of Civil Defence.
15. Director of Aviation.
16. Director of Prohibition & Excise.
17. Chief Ports Officer.
18. Director Inland Water Transport.
19. Dairy Development Commissioner.
20. Director of Fisheries.
21. Director of Technical Education.
22. Director of Training.
23. Director of Art.
24. Director of Archeology.
25. Director of Employment.
26. Director of Municipal Administration.
27. Director of Health Services.
28. Director of Medical Education & Research.
29. Director of State Employees Insurance Scheme.
30. Director of Ayurved.
31. Commissioner, Food & Drugs Administration.
32. Commissioner of Sales Tax.
33. Director of Small Savings.
34. Director of Accounts & Treasuries.
35. Director of State Lotteries.
36. Director of Insurance.
37. Controller of Slums.
38. Superintendent, Parks and Gardens.
39. Charity Commissioner.
40. Chief Justice, Bombay High Court.
41. Administrator General and Official Trustee.
42. Commissioner of Industries.
43. Director of Printing and Stationery.
44. Commissioner, Workmen's Compensation.

45. Commissioner of Labour.
46. Chief Inspector of Factories.
47. Chief Inspector of Steam Boiler and Smoke Nuisance.
48. Supply Commissioner.
49. Director of Civil Supplies.
50. Director of Cultural Affairs.
51. Director of Economics & Statistics.
52. Examiner of Books and Publications.
53. Director of Correctional Services.
54. Director of Re-settlement of Project Affected Persons.
55. Director of Training.
56. Director of Studies and Research.

Pune

1. Settlement Commissioner, and Director of Land Records.
2. Commissioner for Tribal Welfare.
3. Commissioner for Co-operation & Registrar of Co-operative Societies.
4. Inspector General of Prisons.
5. Inspector General of Registration.
6. Chief Conservator of Forests.
7. Director of Agriculture.
8. Director of Animal Husbandry.
9. Director of Education.
10. Director of Town Planning & Valuation.
11. Director of Sugar.
12. Director of Marketing.
13. Director of Irrigation Research & Development.
14. Director of Social Welfare.
15. Director of Sports & Youth Services.
16. Director of Horticulture.
17. Director of Social Forestry.
18. Director of Maharashtra Rajya Sainik Board.
19. Director of G.S.D.A.

Nagpur

1. Director of Handloom, Powerloom & Co-operative Textiles.
2. Director of Geology & Mining.

ANNEXURE B

PUBLIC SECTOR UNDERTAKINGS OF THE GOVERNMENT OF MAHARASHTRA

Name of Undertaking	Head- quarters	Chairman
1	2	3
(I) ESTABLISHED UNDER COMPANIES ACT		
1. State Industrial & Investment Corporation of Maharashtra Ltd.	Bombay	Shri V.G.Vartak (Thane)
2. Maharashtra Small Scale Industrial Development Corporation Ltd.	Bombay	Shri Mustafa Faqih (Thane)
3. Maharashtra State Textile Corporation Ltd.	Bombay	Shri R.C.Iyer (I.A.S)
4. Maharashtra State Mining Corporation Ltd.	Nagpur	
5. Western Maharashtra Development Corporation Ltd.	Pune	Shri Ulhas S.Pawar (Pune)
6. Development Corporation of Konkan Ltd.	Bombay	Shri Sharad Palav (Konkan)
7. Development Corporation of Vidarbha Ltd.	Nagpur	Shri Kishore Kashikar (Nagpur)
8. Marathwada Development Corporation Ltd.	Aurangabad	Shri Raibhan Jadhav (Aurangabad).
9. Maharashtra Electronics Corporation Ltd.	Bombay	Shri Harish Mahindra (Bombay)
10. Leather Industries Development Corporation of Maharashtra.	Bombay	Shri Arvind Kamble (Osmanabad)
11. MAFCO Ltd.	Bombay	Shri V.B.Nimkar (Satara)
12. Maharashtra Agro-Industrial Development Corporation Ltd.	Bombay	Shri K.M.Patil (Jalgaon)
13. Maharashtra Powerlooms Corporation Ltd.	Bombay	Shri K.K.Rangari(I.A.S)

1	2	3
14. Maharashtra State Handlooms Corporation Ltd	Nagpur	Shri D.L.Kumbhare (Wardha) M.L.A.
15. Maharashtra Fisheries Development Corporation Ltd.	Bombay	Shri J.C.Barway (Nagpur)
16. Maharashtra State Oilseeds Commercial and Industrial Corporation Ltd.	Bombay	Shri Vasant Rao Patil, Chief Minister
17. Maharashtra State Seeds Corporation Ltd.	Akola	Secretary(Agril) Ex-Officio
18. Sheep Development Corporation of Maharashtra Ltd.	Pune	Shri A.N.Deokate (Sholapur)
19. Irrigation Development Corporation of Maharashtra Ltd.	Pune	Shri R.K.Sharma (Nagpur) M.L.A.
20. Maharashtra Land Development Corporation Ltd.	Pune	- Vacant -
21. Maharashtra Tourism Development Corporation Ltd	Bombay	Shri Sushil Kumar Shinde, Minister (Tourism)
22. Maharashtra Film, Stage and Cultural Development Corporation	Bombay	Shri Sushil Kumar Shinde, Minister (Cultural Affairs)
23. Mahatma Phule Backward Class Development Corporation,	Bombay	Shri R.P.Dendule (Akola)
24. Mahila Arthik Vikas Mahamandal Ltd	Bombay	Smt. Vasudha Deshmukh(Amravati)
25. Maharashtra Overseas Employment Promotion Corporation Ltd (MOPEC)	Bombay	Shri Faruq Pasha (Bombay)
26. City & Industrial Development Corporation of Maharashtra	Bombay	Shri Ram Mahadik (Bombay)
27. Haffkins Bio-Pharmaceutical Corporation Ltd	Bombay	Dr. B.K.Goyal (Bombay)

1	2	3
28.	Maharashtra State Farming Corporation Ltd	Pune Shri S.G.Gholap, Minister(Revenue)
29.	Forest Development Corporation of Maharashtra Ltd.	Nagpur Shri S.H.Naik, Minister(Forest)
30.	Maharashtra State Police Housing Welfare Corporation.	Bombay Shri B.K.Chowgule (I.A.S.)
31.	Petrochemical Corporation of Maharashtra.	Bombay Shri Seshadri(I.A.S)
II. STATUTORY UNDERTAKINGS		
32.	Maharashtra State Financial Corporation.	Bombay Shri S.R.Damani (Bombay)
33.	Maharashtra Housing & Area Development Authority.	Bombay Shri B.D.Zute (Bombay)
34.	Maharashtra Industrial Development Corporation.	Bombay Shri Ramrao Adik, Dy.C.M.(Industries)
35.	Maharashtra Khadi & Village Industries Board.	Bombay - Vacant -
36.	Maharashtra State Electricity Board.	Bombay Shri V.S.Shevade
37.	Maharashtra State Warehousing Corporation.	Pune Shri R.G.Gupte (Pune)
38.	Maharashtra State Road Transport Corporation.	Bombay Shri N.V.Sundaraman
39.	Bombay Metropolitan Regional Development Authority.	Bombay Shri Ramrao Adik, Dy.C.M.(U.D)
40.	Maharashtra Water Supply & Sewerage Board.	Bombay Shri Ramrao Adik, Dy.C.M.(U.D)
III. ESTABLISHED UNDER COOPERATIVE SOCIETIES ACT, 1960		
41.	Maharashtra State Co-operative Tribal Development Corporation.	Nashik Shri Manikrao Gavit(Dhule)

Annexure C

Representation of Districts on the Boards of Directors Of
State Public Sector Undertakings

District	State	Public	Sector	Undertakings	
	1	2	3	4	5
1. Greater Bombay	4	-	6	4	6
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	1	-	-	-	-
<u>KONKAN (excl. G.B.)</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
5. Nashik	1	-	-	-	-
6. Dhule	1	-	-	-	-
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-
9. Pune	1	-	-	-	-
10. Satara	2	-	-	-	-
11. Sangli	1	1	-	-	-
12. Solapur	1	-	-	-	-
13. Kolhapur	1	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>8</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>
14. Aurangabad	1	-	-	-	-
15. Parbhani	-	-	-	-	-
16. Beed	1	1	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	1	-	-	-	-
<u>MARATHWADA</u>	<u>3</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>
19. Buldhana	1	-	-	-	-
20. Akola	-	-	-	-	-
21. Amravati	1	-	-	-	-
22. Yavatmal	-	-	-	-	-
23. Wardha	1	-	-	-	-
24. Nagpur	2	1	-	-	-
25. Bhandara	1	-	-	-	-
26. Chandrapur	1	-	-	-	-
<u>VIDARBHA</u>	<u>7</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>MAHARASHTRA STATE</u>	<u>23</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>6</u>
<u>MAHARASHTRA STATE</u> <u>(excluding G.B)</u>	<u>19</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>-</u>

1. Maharashtra State Road Transport Corporation.
2. Maharashtra State Electricity Board.
3. Maharashtra State Financial Corporation Ltd.
4. State Industrial & Investment Corporation of Maharashtra Ltd.
5. Maharashtra Electronics Corporation Ltd.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors of
State Public Sector Undertakings

District	<u>State</u>	<u>Public</u>	<u>Sector</u>	<u>Undertakings</u>	10
	6	7	8	9	
1. Greater Bombay	2	2	-	1	1
2. Thane	1	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (excl. G.B)</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
5. Nashik	-	-	-	-	-
6. Dhule	-	-	-	-	-
7. Jalgaon	-	-	-	-	1
8. Ahmednagar	-	-	-	-	-
9. Pune	-	-	-	-	1
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	-	-
12. Solapur	-	-	-	-	-
13. Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>
14. Aurangabad	-	1	-	-	1
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>1</u>
19. Buldhana	-	-	-	-	-
20. Akola	-	-	-	-	-
21. Amravati	-	-	-	-	1
22. Yavatmal	-	-	-	-	-
23. Wardha	-	-	-	-	-
24. Nagpur	-	1	-	4	2
25. Bhandara	-	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>4</u>	<u>3</u>
<u>MAHARASHTRA STATE</u>	<u>3</u>	<u>5</u>	<u>-</u>	<u>5</u>	<u>8</u>
<u>MAHARASHTRA STATE</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>(excl. G.B)</u>	<u>1</u>	<u>2</u>	<u>-</u>	<u>4</u>	<u>7</u>

6. Maharashtra Small Scale Industries Development Corporation Ltd.
7. Overseas Employment Corporation of Maharashtra Ltd.
8. Petro-Chemicals Corporation.
9. Maharashtra State Mining Corporation Ltd.
10. Maharashtra Agro-Industries Development Corporation Ltd.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors of
State Public Sector Undertakings

District	State 11	Public 12	Sector 13	Undertakings 14	15
1. Greater Bombay	1	2	-	-	1
2. Thane	-	-	-	-	1
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (excl. G.B)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
5. Nashik	-	-	-	-	-
6. Dhule	-	-	-	-	-
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-
9. Pune	-	-	1	-	1
10. Satara	-	1	1	-	-
11. Sangli	-	-	-	-	1
12. Solapur	-	-	-	-	1
13. Kolhapur	-	1	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>-</u>	<u>2</u>	<u>2</u>	<u>-</u>	<u>3</u>
14. Aurangabad	-	-	-	-	-
15. Parbhani	-	-	-	1	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>
19. Buldhana	-	-	-	-	-
20. Akola	-	-	1	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	-	-	-	-	-
23. Wardha	-	-	-	-	-
24. Nagpur	-	-	-	-	-
25. Bhandara	-	1	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>-</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>-</u>
<u>MAHARASHTRA STATE</u>	<u>1</u>	<u>5</u>	<u>3</u>	<u>1</u>	<u>5</u>
<u>MAHARASHTRA STATE</u>	<u>-</u>	<u>3</u>	<u>3</u>	<u>1</u>	<u>4</u>
<u>(excl. G.B)</u>	<u>-</u>	<u>3</u>	<u>3</u>	<u>1</u>	<u>4</u>

11. Maharashtra Powerloom Corporation Ltd.
12. Maharashtra State Textile Corporation Ltd.
13. MAFCO Ltd.
14. Maharashtra State Seeds Corporation Ltd.
15. Maharashtra State Warehousing Corporation.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors of
of State Public Sector Undertakings

Districts	State 16	Public 17	Sector 18	Undertakings 19	20
1. Greater Bombay	-	8	-	-	2
2. Thane	-	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (excl. G.B.)</u>	-	-	-	-	-
5. Nashik	-	-	1	1	-
6. Dhule	-	-	1	1	-
7. Jalgaon	-	-	1	-	1
8. Ahmednagar	-	-	-	-	-
9. Pune	-	-	3	1	-
10. Satara	1	-	1	1	-
11. Sangli	1	-	1	1	1
12. Solapur	1	-	1	1	1
13. Kolhapur	1	-	1	1	1
<u>WESTERN MAHARASHTRA</u>	<u>4</u>	<u>-</u>	<u>10</u>	<u>7</u>	<u>4</u>
14. Aurangabad	-	-	-	-	-
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	-	-	-	1
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1</u>
19. Buldhana	-	-	-	-	-
20. Akola	-	1	-	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	-	-	-	-	1
23. Wardha	-	-	-	-	-
24. Nagpur	-	-	1	-	-
25. Bhandara	-	-	1	-	-
26. Chandrapur	-	-	-	-	1
<u>VIDARBHA</u>	<u>-</u>	<u>1</u>	<u>2</u>	<u>-</u>	<u>2</u>
<u>MAHARASHTRA STATE</u>	<u>4</u>	<u>9</u>	<u>12</u>	<u>7</u>	<u>9</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B.)</u>	<u>4</u>	<u>1</u>	<u>12</u>	<u>7</u>	<u>7</u>

16. Maharashtra State Farming Corporation Ltd.
 17. Haffkine Bio- Pharmaceutical Corporation Ltd.
 18. Irrigation Development Corporation of Maharashtra Ltd.
 19. Maharashtra Land Development Corporation Ltd.
 20. Sheep Development Corporation of Maharashtra Ltd.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors of
State Public Sector Undertakings

District	State Public Sector Undertakings				
	21	22	23	24	25
1. Greater Bombay	3	-	-	-	-
2. Thane	1	-	-	-	-
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (excl. G.B.)</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
5. Nashik	-	-	-	-	-
6. Dhule	-	1	-	-	-
7. Jalgaon	-	-	-	-	-
8. Ahmednagar	-	-	-	-	-
9. Pune	-	-	-	-	-
10. Satara	-	-	1	-	-
11. Sangli	-	-	-	-	-
12. Solapur	-	-	1	-	-
13. Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>-</u>	<u>1</u>	<u>2</u>	<u>-</u>	<u>-</u>
14. Aurangabad	-	-	-	-	-
15. Parbhani	-	-	1	-	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>
19. Buldhana	-	-	-	-	-
20. Akola	-	1	-	-	-
21. Amravati	-	-	-	-	-
22. Yavatmal	-	-	-	-	-
23. Wardha	-	-	1	-	-
24. Nagpur	-	1	1	-	-
25. Bhandara	-	-	-	-	1
26. Chandrapur	-	-	-	1	-
<u>VIDARBHA</u>	<u>-</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>-</u>
<u>MAHARASHTRA STATE</u>	<u>4</u>	<u>3</u>	<u>5</u>	<u>1</u>	<u>-</u>
<u>MAHARASHTRA STATE</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>(excl. G.B.)</u>	<u>1</u>	<u>3</u>	<u>5</u>	<u>1</u>	<u>-</u>

21. Maharashtra State Fisheries Development Corporation Ltd.
 22. Forest Development Corporation of Maharashtra Ltd.
 23. Maharashtra State Handloom Corporation Ltd.
 24. Maharashtra State Oilseeds Commercial and Industrial Corporation Ltd.
 25. Rural Development Corporation of Maharashtra Ltd.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors of
State Public Sector Undertakings

District	<u>State</u> 26	<u>Public</u> 27	<u>Sector</u> 28	<u>Undertakings</u> 29	30
1. Greater Bombay	1	1	2	6	1
2. Thane	-	-	-	1	-
3. Raigad	-	-	-	1	-
4. Ratnagiri	-	-	-	-	-
<u>KONKAN (Excl G.B)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>-</u>
5. Nashik	-	-	-	-	-
6. Dhule	1	-	-	-	-
7. Jalgaon	-	-	-	-	1
8. Ahmednagar	1	-	-	-	-
9. Pune	1	-	-	-	-
10. Satara	-	-	-	-	-
11. Sangli	-	-	-	-	1
12. Solapur	-	-	-	-	-
13. Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>
14. Aurangabad	-	1	-	-	-
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded	-	-	-	-	-
18. Osmanabad	-	1	-	-	-
<u>MARATHWADA</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>-</u>
19. Buldhana	-	-	-	-	-
20. Akola	-	-	-	-	-
21. Amravati	-	-	-	-	1
22. Yavatmal	-	-	-	-	-
23. Wardha	-	-	-	-	-
24. Nagpur	1	-	-	-	1
25. Bhandara	1	-	-	-	-
26. Chandrapur	-	-	-	-	-
<u>VIDARBHA</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>
<u>MAHARASHTRA STATE</u>	<u>6</u>	<u>3</u>	<u>2</u>	<u>8</u>	<u>5</u>
<u>MAHARASHTRA STATE</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>(excl. G. B.)</u>	<u>5</u>	<u>2</u>	<u>-</u>	<u>2</u>	<u>4</u>

26. Maharashtra Industrial Development Corporation.
 27. Leather Industries Development Corporation of Maharashtra Ltd.
 28. City and Industrial Development Corporation of Maharashtra Ltd.
 29. Bombay Metropolitan Regional Development Authority.
 30. Maharashtra Water Supply and Sewerage Board.

(Contd)

Annexure C (Contd)

Representation of Districts on the Boards of Directors Of
State Public Sector Undertakings

District	<u>31</u>	<u>32</u>	<u>33</u>	<u>34</u>	<u>35</u>
1. Greater Bombay	1	-	2	2	1
2. Thane	1	-	-	-	1
3. Raigad	-	-	-	-	-
4. Ratnagiri	-	-	1	-	-
<u>KONKAN (excl. G.B.)</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>1</u>
5. Nashik	-	-	1	2	1
6. Dhule	-	-	-	1	1
7. Jalgaon	-	-	-	2	-
8. Ahmednagar	-	-	-	2	-
9. Pune	-	-	1	-	2
10. Satara	-	-	-	-	1
11. Sangli	-	-	-	-	-
12. Solapur	1	-	1	-	-
13. Kolhapur	-	-	-	-	-
<u>WESTERN MAHARASHTRA</u>	<u>1</u>	<u>-</u>	<u>3</u>	<u>7</u>	<u>5</u>
14. Aurangabad	-	-	-	-	-
15. Parbhani	-	-	-	-	-
16. Beed	-	-	-	-	-
17. Nanded	1	-	2	-	-
18. Osmanabad	-	-	-	-	-
<u>MARATHWADA</u>	<u>1</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>-</u>
19. Buldhana	-	-	2	-	-
20. Akola	1	-	-	-	-
21. Amravati	-	-	1	1	-
22. Yavatmal	-	-	-	1	-
23. Wardha	-	-	-	-	-
24. Nagpur	1	-	1	-	-
25. Bhandara	-	-	-	-	-
26. Chandrapur	1	-	-	2	1
<u>VIDARBHA</u>	<u>3</u>	<u>-</u>	<u>4</u>	<u>4</u>	<u>1</u>
<u>MAHARASHTRA STATE</u>	<u>7</u>	<u>-</u>	<u>11</u>	<u>14</u>	<u>8</u>
<u>MAHARASHTRA STATE</u> <u>(excluding G.B)</u>	<u>6</u>	<u>-</u>	<u>9</u>	<u>12</u>	<u>7</u>

31. Maharashtra Khadi and Village Industries Board.
32. Maharashtra State Police Housing Welfare Corporation Ltd.
33. Mahila Arthik Vikas Mahamandal Ltd.
34. Maharashtra State Cooperative Tribal Development Corporation Ltd.
35. Mahatma Phule Backward Class Development Corporation Ltd.

(Contd)

Annexure C (Concl'd)

Representation of Districts on the Boards of Directors of
State Public Sector Undertakings

District	<u>State</u> 36	<u>Public</u> 37	<u>Sector</u> 38	<u>Undertakings</u> Total
1. Greater Bombay	6	8	1	75
2. Thane	-	1	-	7
3. Raigad	-	-	-	1
4. Ratnagiri	-	-	-	3
<u>KONKAN (excl. G.B)</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>11</u>
5. Nashik	1	-	-	8
6. Dhule	-	-	-	7
7. Jalgaon	-	-	1	7
8. Ahmednagar	-	-	-	3
9. Pune	1	-	-	13
10. Satara	-	-	-	10
11. Sangli	1	-	1	9
12. Solapur	-	-	-	9
13. Kolhapur	-	-	-	6
<u>WESTERN MAHARASHTRA</u>	<u>3</u>	<u>-</u>	<u>2</u>	<u>72</u>
14. Aurangabad	-	-	-	4
15. Parbhani	-	-	-	2
16. Beed	-	-	-	2
17. Nanded	-	-	1	4
18. Osmanabad	-	-	-	3
<u>MARATHWADA</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>15</u>
19. Buldhana	-	-	-	3
20. Akola	-	-	1	5
21. Amravati	1	-	-	6
22. Yavatmal	-	-	-	2
23. Wardha	2	-	-	4
24. Nagpur	-	-	-	17
25. Bhandara	-	-	-	4
26. Chandrapur	-	-	-	7
<u>VIDARBHA</u>	<u>3</u>	<u>-</u>	<u>1</u>	<u>48</u>
<u>MAHARASHTRA STATE</u>	<u>12</u>	<u>9</u>	<u>5</u>	<u>221</u>
<u>MAHARASHTRA STATE</u> <u>(excl. G.B)</u>	<u>6</u>	<u>1</u>	<u>4</u>	<u>146</u>

36. Maharashtra Tourism Development Corporation Ltd.

37. Maharashtra Film Stage and Cultural Development Corporation Ltd.

38. Maharashtra Housing and Area Development Authority.

CHAPTER XIX

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Historical Background:

19.1. The problem of regional feeling in Maharashtra goes back to the reorganization of the States. It was given concrete expression in the Nagpur Agreement signed in September 1953 purported to constitute the basis for bringing together the three Marathi speaking areas in one single State.

19.2. The States Reorganization Commission reported in September 1955. It recommended a separate state of Vidarbha. In the following is a gist of their argument:

Historical accidents are to a large extent responsible for the feeling in favour of separation which exists today in the major part of Vidarbha. Vidarbha's financial history under the bankers, to whom the revenues were farmed out, was so unusual that there has been understandably a certain degree of suspicion ever since of persons from outside the area. Another reason for the creation of a separate Vidarbha State is the fear that Nagpur will be completely overshadowed by Bombay City. Communalism, it has been stated, may also be introduced into the political life of Vidarbha if it joins Maharashtra. Land and tenancy laws in this area will have to be modelled on those of Bombay State; and a period of transition during which Vidarbha may be struggling to maintain and safeguard its interests, may be unavoidable. Important sections of the people in Vidarbha, in these circumstances, are not willing to run this risk. Arrangements, such as provided in the Nagpur Agreement, are not workable and are no longer regarded by a section of leaders as a satisfactory means of finding a solution. We have come to the conclusion that it will be in the interest of all concerned if the Marathi-speaking districts of Madhya Pradesh, which form a compact unit, are constituted into a separate State. (2.3)

19.3. The Report of the Joint Committee to which the Constitution (Ninth Amendment) Bill, 1956 was referred, records as follows: "It was urged before the Committee by its members from Vidarbha that the agreement entered into in September, 1953, known as the Nagpur Agreement, should, to the extent practicable, be given constitutional recognition. The members from the other Maharashtra areas gave their full support to this proposal. A clause has accordingly been added to the proposed Article 371 with the consent of the members from Maharashtra." (2.6)

19.4. In 1960, Shri Y.B. Chavan, the then Chief Minister of Bombay, made a statement in the House giving certain assurance to Bombay City, Vidarbha, and Marathwada. Inter alia, it contained the following: "In this connection, I would like to draw the attention of the House to Article 371 of the Constitution which contains special provisions for Bombay and other States. That Article envisages separate Development Boards, equitable allocation of funds for development expenditure, equitable arrangements for technical education and vocational training and adequate opportunities for employment in State Services. The protection afforded by this Article will continue in the residual State of Bombay, that is Maharashtra." (2.7)

19.5. On August 20, 1969, Shri V.P. Naik, the then Chief Minister made a statement before the State Assembly to the following effect: "At the time of the formation of Maharashtra in 1960, the view was accepted that Vidarbha, Marathwada and Konkan which were less developed relative to the rest of the State should be given maximum assistance for their development. However, seeing that, except for one or two districts, the rest of the State is largely underdeveloped, we should now reject the view that a certain district or certain region is underdeveloped and should be given additional assistance. Instead, we should direct our efforts to secure a balanced development of all the regions of the State the whole of which is more or less underdeveloped. Taking into account this fact and objective, the Government has now decided to treat the district as the primary unit of planning." This almost amounted to an abrogation of the Nagpur Agreement. No member in the House seems to have protested. (2.13)

19.6. In the Fifth Plan (1974-79), the problems of regional development were discussed in terms of districts and not in terms of regions, such as Vidarbha, Marathwada and the rest of Maharashtra. (2.15)

19.7. The Estimates Committee of the Maharashtra Legislative Assembly in its report on the Budget Proposals for 1979-80, gives certain data supplied by the Planning Department regarding plan expenditure incurred in the three regions of Western Maharashtra (including Konkan), Vidarbha and Marathwada from 1961-62 to 1978-79. Evidently, the statement is purported to demonstrate that, at least in formal financial sense, the terms of the Nagpur Agreement were fully satisfied. We find the evidence inconclusive and, in the form in which it is given, misleading. (2.15-2.16)

19.8. In 1980, that is at the beginning of the Sixth Five Year Plan (1980-85), the discussion of regional imbalance of Vidarbha, Marathwada, and Konkan, in terms of backlog, revived and gathered momentum. (2.17)

19.9. In Chapter I of the Sixth Plan document of the Government of Maharashtra, the following appears: "All the important policy pronouncements made by the Chief Minister and

the present Government, especially in regard to the programme relating to the removal of development imbalance of identifiable underdeveloped areas in the State like Vidarbha, Marathwada, and Konkan are concretised in the sectoral schemes." (2.19)

19.10. In fact, the Sixth Plan does not contain any such specific/time-bound schemes. The reference to the "important policy pronouncements made by the Chief Minister" relates to a 14-Point Programme for Vidarbha, a 35-Point Programme for Marathwada, and a 17-Point Programme for Konkan, the Chief Minister announced in the State Assembly in December 1980. In December 1981, the Chief Minister announced, in the State Assembly, an additional 24-Point Programme for Vidarbha. (2.19)

19.11. In the monsoon session of the State Legislature, a resolution was moved to appoint a Study Group at the State Level to study the backlog of Vidarbha, Marathwada, and Konkan. In response, on July 29, 1983, the Government announced the appointment of our Committee. (2.20)

19.12. In our opinion, the failure to report to the State Assembly every year in terms of the Nagpur Agreement has been a serious lapse on the part of the State Government. If a report had been made to the State Legislature, as envisaged in the Nagpur Agreement, the matter would have received sustained attention. In the circumstance, this did not happen. The casual attempts recently made for eliminating the regional disparities by announcing a 38-Point, a 35-Point, and a 17-Point programme for Vidarbha, Marathwada and Konkan respectively, without specific resources being allocated for the purpose, have added to the feeling of distrust. The demand for invoking the provisions of Article 371(2) of the Constitution is mainly an expression of this feeling of hurt and distrust. (2.21)

Our Approach:

19.13. Our terms of reference require us to examine regional disparities districtwise. This is in consonance with the policy the State Government has pursued since 1972. Nevertheless, during our tour of the districts, we were struck by an antipathy to this notion and we sensed a deep-seated suspicion, in some quarters, that the Committee has been asked to examine the problem in terms of districts as units mainly to undermine the regional identities of Vidarbha and Marathwada. We wish to assure that we do not view our task in that spirit. (3.2)

19.14. It has been persistently impressed upon us that the regional identities of Vidarbha and Marathwada, as historically evolved socio-cultural units, do not undermine the unity of Maharashtra. We share that view. But, at the same time, we believe that an analysis of the problems of regional development and disparities in terms of smaller units such as districts need not and does not undermine the identity of a region. Indeed, it makes possible a better understanding of the complex factors underlying regional disparities in development. (3.2)

19.15. The National Committee on the Development of Backward Areas (NCDBA) has recommended that the primary unit for the identification of backward areas should be the development block. (3.3)

19.16. The readily available data, in most sectors, do not permit us to go below the district and examine the disparities at the taluka level. But it seems to us that, for many purposes, our analysis will have to be carried further to the taluka level. (3.5)

19.17. The choice between the district and the block or taluka will depend on the particular field of development and the average level it has reached. In general, with higher level of development, one may expect it to spread more evenly and hence one may take a smaller unit to examine disparities. (3.5)

19.18. Our terms of reference require us to review the development expenditure incurred in different districts beginning with 1960 upto the latest year for which data may be available. We are sorry to say that, within the available time, we could not obtain all the requisite data. In the circumstance, it has not been possible for us to review the development expenditure incurred in the districts in its totality nor trace such a review as far back as 1960. We have presented the results of available data in Chapter V. (3.7)

19.19. Our presentation of districtwise development expenditure in Chapter V is admittedly inadequate and incomplete. We are particularly disappointed by the non-availability of districtwise data on Non-Plan Development Expenditure. We recommend that early steps should be taken to ensure that the Non-Plan Development Expenditure is regularly maintained districtwise. (5.17-5.19)

19.20. The emphasis on the development expenditure in different districts arises from the concept of backlog in per capita development expenditure incurred in the three constituent units of Vidarbha, Marathwada and rest of Maharashtra. We think that, rather than concentrating attention on per capita development expenditure, we should examine disparities between districts and regions in physical achievements in a number of specific fields. (3.8-3.9)

19.21. Our terms of reference require us to determine indicators to assess imbalance or disparities in development. Many indicators have been used in the current debate. In Chapter IV, we have examined some of these. They are : (1) Per Capita Domestic Product; (2) Per Capita Consumer Expenditure; (3) Per Capita Domestic Product originating in Agriculture and Allied Activities Sector; (4) Per Capita Domestic Product originating in Registered Manufacturing Sector; (5) Percentage of Urban Population; (6) Percentage of workers engaged in activities other than agriculture and such occupations as mining, quarrying,

livestock, forestry, fishery, hunting, plantations, orchards, etc.; (7) Per Capita Consumption of Electricity; (8) Per Capita Bank Credit and Bank Deposits, and Credit/Deposit Ratio; (9) Male and Female Literacy; and (10) Percentage of Scheduled Tribes, Scheduled Castes, Nav Baudhas, and Agricultural Labour in the population. (3.10 & 3.27)

19.22. The problem of identification and classification of backward areas has been methodically examined by the Chakravarty Committee on Backward Areas. In particular, the Committee has constructed a composite index of backwardness making use of three different methods for aggregating fourteen indicators it chose to use. Out of 326 districts the Committee took for analysis, 155 districts were classified as backward by all the three methods. The Committee considered these districts the hard core of backward areas in the country. (3.14-3.21)

19.23. From operational standpoint, the most important criticism made by the National Committee on the Development of Backward Areas (NCDBA) of a composite index of backwardness is that it does not classify districts into problem categories and in fact further analysis is required in order to do this. (3.22)

19.24. The NCDBA examines whether instead of using an overall index, it may be easier to define sectoral indices to identify backwardness with respect to specific sectors of development, e.g. agricultural backwardness, industrial backwardness, educational backwardness, etc. The NCDBA observes that such indices may be of use in the monitoring of regional inequalities at the sectoral level; but that, as a general answer to the problem of identifying backward areas, the sectoral index approach is not very promising. (3.24)

19.25. Thus the NCDBA does not approve using an overall index to identify backward areas. Instead, it recommends that the following problem areas should be recognised as backward: (i) Chronically drought-prone areas; (ii) Desert areas; (iii) Tribal areas; (iv) Hill areas; (v) Chronically flood-affected areas; and (vi) Coastal areas affected by salinity. It views these as six types of fundamental backwardness. (3.25)

19.26. We generally share the NCDBA's reluctance to use a single indicator, composite or otherwise, to identify backward areas or districts. But, we do not accept the idea of setting aside all quantitative data and instead identifying backward areas or districts on the basis of what the NCDBA calls types of fundamental backwardness. In fact, our central purpose is not so much to identify backward areas by classifying the districts into two classes called Backward and not-Backward. Our main purpose is to, what the NCDBA calls, "monitor regional inequalities" and this, as the NCDBA points out, has to be done at "sectoral level". Even in relation to the sectors, our purpose is not to construct indicators to identify broad sectoral backwardness such as agricultural backwardness, industrial backwardness, educational backwardness, etc. We examine disparities in

development and measure the backlog of the districts lagging behind in each sector in much greater detail, so that the disparities are identified in operationally meaningful terms. (3.26)

19.27. This is done in a series of Chapters, VI to XVI. We have been able to examine the following sectors/sub-sectors/schemes/ programmes. To assess the achievement in each sector/etc. we have chosen an appropriate indicator and ascertained the backlog of districts where achievement, in terms of the chosen indicator, falls below the State average.

<u>Sector/sub-sector/ scheme/programme</u>	<u>Indicator of physical achievement</u>
1. Main Roads	Certain norms of specification of width, surface, cross-drainage works, bridges, etc.
2. Other Roads	Percentage of rural population connected to main road system as on March 31, 1983.
3. Irrigation	Irrigation potential as on June 30, 1982 converted to Standard Rabi Equivalent as percentage of net sown area.
4. Rural Electrification	Percentage of villages electrified as on March 31, 1983.
5. Energisation of agricultural pump-sets	Number of pumpsets energised per thousand hectares of gross cropped area as on March 31, 1983.
6. Primary Education	Number of teachers per lakh population in 1982-83
7. Secondary Education	- do -
8. Pre-University and University Education	- do -
9. Adult Education	Enrolment in 1983-84 as per cent of estimated adult illiterate population at the beginning of the year.
10. Industrial Training Institutes	Sanctioned strength per lakh population as on March 31, 1983.
11. Technical Highschools/ Centres	Student intake per lakh population as on March 31, 1983.

12. Tech. Training in Higher Secondary Schools	Sanctioned strength per lakh population as on March 31, 1983.
13. Vocational Courses	Intake capacity per lakh population as on March 31, 1983.
14. Polytechnics	Certain norms per district.
15. Primary Health Sub-Centres	Achievement in relation to the norms of the Minimum Needs Programme as on March 31, 1983.
16. Primary Health Centres	- do -
17. Rural/Cottage Hospitals	- do -
18. Hospital Beds	Hospital Beds per lakh population as in 1981.
19. Water Supply by dug/bore wells to problem villages	Percentage of problem villages supplied with water by dug/bore wells as on March 31, 1983.
20. Piped Water Supply to problem villages	Percentage of population in relevant problem villages supplied with piped water as on March 31, 1983.
21. Piped Water Supply to other villages	Percentage of rural population supplied with piped water at the end of present programme.
22. Urban Water Supply	Certain norms of urban water supply.
23. Land Development by Command Area Development Authority (CADA)	Percentage of Cultivable Command Area (CCA) in which work completed.
24. Land Development in non-CADA area	- do -
25. Countour Bunding	Work completed as percentage of potential.
26. Terracing	- do -
27. Nala bunding	- do -
28. Land Development-cum-Horticultural Development	- do -
29. Veterinary Institutes	- do -

The Backlog:

19.28. The physical backlog of a district in a particular sector/sub-sector/etc. is measured by how far behind or below the State average its own achievement lies. Having assessed the backlog of lagging districts in terms of physical achievement in each one of the above sectors/sub-sectors/etc., we have estimated the cost of removing the backlog, in other words, the cost of bringing the district achievement to the level of the present State average. Wherever necessary, the backlog is worked out separately for the capital and recurring expenditure. While combining the two, we have followed the customary practice and provided for, besides capital expenditure, recurring expenditure for a period of three years. In Table 19 we give a districtwise summary of the cost of the backlog in the several sectors/sub-sectors/etc. examined by us. For the State (excluding Greater Bombay) it adds up to Rs.3,177.07 crore divided between the regions as follows: Konkan - Rs.295.62 crore; Western Maharashtra - Rs.884.05 crore; Marathwada - Rs.750.86 crore; and Vidarbha - Rs.1,246.54 crore. On a per capita basis, this amounts to Rs.425.39 in Konkan, Rs.375.88 in Western Maharashtra, Rs.771.79 in Marathwada, and Rs.869.08 in Vidarbha.

19.29. This does not cover all the sectors; for instance, Welfare of Backward Classes. Moreover, we have not been able to examine all the programmes or schemes in the sectors mentioned above; for instance, buildings of primary schools. Our choice was limited by readily available data. We expect that necessary steps will be taken to examine and treat in like manner other relevant programmes and schemes at the earliest. (3.31)

19.30. There are aspects and activities which are considered non-developmental, as for instance, staffing of district and taluka offices, which we have not examined. But if there exist disparities in these respects, they are not altogether irrelevant to disparities in development. We recommend that these should be removed at the earliest. (3.31)

19.31. For all the sectors/sub-sectors/schemes/programmes listed above, we have generally adopted district as the unit and assessed the backlog districtwise. There is one exception. In our analysis of the irrigation development, we have incorporated taluka level data for drought-prone areas even when similar data were not available for other talukas. This was necessary because an examination of disparities in irrigation development in Maharashtra would not be complete without taking note of the drought-prone areas. It will be necessary to complete our taluka level analysis of irrigation by taking account of all the talukas. (7.23)

19.32. It will be desirable for some other sectors/etc. also to carry our analysis further to the taluka level. Specifically we recommend that, out of the sectors/sub-sectors/schemes/programmes examined by us at the district level, the following

Table 19

Cost of Backlog in Different Sectors

(Rs. Lakh)

District	Roads	Irrigation	Village Electri- fication	General Educat- ion	Technical Education
1	2	3	4	5	6
1. Greater Bombay	-	-	-	-	970.55
2. Thane	2,045.00	4,108.00	645.45	1,189.20	327.67
3. Raigad	1,877.00	-	961.18	297.90	298.59
4. Ratnagiri	3,458.00	6,450.00	1,370.02	288.00	309.40
KONKAN					
(Excl. G.B.)	7,380.00	10,558.00	2,976.65	1,775.10	935.66
5. Nashik	2,751.00	4,815.00	219.60	32.40	319.60
6. Dhule	900.00	4,223.00	376.20	246.15	114.90
7. Jalgaon	946.00	3,181.00	-	-	245.83
8. Ahmednagar	879.00	7,549.00	-	17.64	556.73
9. Pune	4,219.00	5,639.00	586.01	63.60	373.36
10. Satara	1,013.00	2,259.00	415.09	-	5.49
11. Sangli	304.00	5,991.00	-	15.00	214.05
12. Solapur	926.00	9,975.00	1,415.31	357.54	323.03
13. Kolhapur	586.00	-	-	109.80	-
WESTERN MAHARASHTRA	12,524.00	43,632.00	3,012.21	842.13	2,152.99
14. Aurangabad	1,817.00	7,569.00	-	610.20	383.18
15. Parbhani	6,525.00	-	2,934.40	1,503.69	485.61
16. Beed	1,181.00	10,437.00	1,659.45	600.90	259.69
17. Nanded	999.00	-	1,550.73	655.80	260.49
18. Osmanabad	460.00	13,665.00	1,101.88	45.00	549.44
MARATHWADA	10,982.00	31,671.00	7,246.46	3,415.59	1,938.41
19. Buldhana	1,359.00	8,478.00	104.40	410.85	106.42
20. Akola	2,064.00	9,235.00	1,573.42	145.80	388.29
21. Amravati	3,192.00	13,433.00	153.00	-	214.88
22. Yavatmal	4,146.00	10,541.00	1,461.09	514.29	329.19
23. Wardha	1,659.00	4,389.00	50.40	34.20	212.40
24. Nagpur	3,861.00	1,165.00	99.00	434.40	173.06
25. Bhandara	222.00	-	1,946.37	638.10	269.50
26. Chandrapur	12,640.00	5,490.00	5,442.05	944.10	648.48
VIDARBHA	29,143.00	52,731.00	10,829.73	3,121.74	2,342.22
MAHARASHTRA STATE	60,029.00	138,592.00	24,065.05	9,154.56	8,339.83
(Excl. G.B.)	60,029.00	138,592.00	24,065.05	9,154.56	7,369.28

(Cont'd.)

Table 19 (Concl'd.)

Cost of Backlog in Different Sectors

(Rs. Lakh)

District	Health Services	Water Supply	Land Deve- lopment and Soil Conser- vation	Veteri- nary	Total
1	7	8	9	10	11
1. Greater Bombay	-	-	-	-	970.55
2. Thane	160.80	481.62	68.67	18.30	9,044.71
3. Raigad	449.50	590.90	43.92	3.00	4,521.99
4. Ratnagiri	722.50	2,029.29	4,350.00	18.00	15,995.21
<u>KONKAN</u> <u>(Excl. G.B.)</u>	<u>1,332.80</u>	<u>3,101.81</u>	<u>1,462.59</u>	<u>39.30</u>	<u>29,561.91</u>
5. Nashik	1,049.60	2,376.52	-	9.00	11,572.72
6. Dhule	1,652.10	2,314.01	28.20	6.00	9,860.56
7. Jalgaon	2,072.40	3,708.34	171.00	39.45	10,364.02
8. Ahmednagar	1,095.60	583.00	11.65	96.30	10,788.92
9. Pune	116.00	586.49	800.00	12.00	12,395.46
10. Satara	828.50	560.24	816.10	3.00	5,900.42
11. Sangli	61.20	250.00	1,048.20	24.00	7,907.45
12. Solapur	116.00	980.23	1,987.14	53.25	16,133.50
13. Kolhapur	1,627.90	315.76	842.59	-	3,482.05
<u>WESTERN MAHARASHTRA</u>	<u>8,619.30</u>	<u>11,674.59</u>	<u>5,704.88</u>	<u>243.00</u>	<u>88,405.10</u>
14. Aurangabad	511.50	2,181.92	195.00	21.00	13,288.80
15. Parbhani	2,024.10	2,135.63	1,799.47	75.60	17,483.50
16. Beed	762.80	628.10	240.22	39.75	15,808.91
17. Nanded	1,397.00	1,062.69	1,970.70	122.55	8,018.96
18. Osmanabad	2,551.90	1,647.05	426.00	39.30	20,485.57
<u>MARATHWADA</u>	<u>7,247.30</u>	<u>7,655.39</u>	<u>4,631.39</u>	<u>298.20</u>	<u>75,085.74</u>
19. Buldhana	1,040.90	1,523.29	229.32	-	13,252.18
20. Akola	189.00	3,544.44	1,005.00	6.60	18,151.55
21. Amravati	116.00	3,030.59	419.17	-	20,558.64
22. Yavatmal	821.50	1,164.23	740.86	48.75	19,766.91
23. Wardha	69.30	1,141.19	605.50	6.00	8,166.99
24. Nagpur	64.40	1,468.54	1,210.56	-	8,475.96
25. Bhandara	1,177.90	1,638.05	0.35	-	5,892.27
26. Chandrapur	1,442.60	1,881.75	1,767.53	133.50	30,390.01
<u>VIDARBHA</u>	<u>4,921.60</u>	<u>15,392.08</u>	<u>5,978.29</u>	<u>194.85</u>	<u>124,654.51</u>
<u>AHARASHTRA STATE</u>	<u>22,121.00</u>	<u>37,823.87</u>	<u>17,777.15</u>	<u>775.35</u>	<u>318,677.81</u>
<u>MAHARASHTRA STATE</u> <u>(Excl. G.B.)</u>	<u>22,121.00</u>	<u>37,823.87</u>	<u>17,777.15</u>	<u>775.35</u>	<u>317,707.26</u>

should be immediately examined at the taluka level: (i) Other Roads, (ii) Irrigation, (iii) Rural Electrification, (iv) Energising of agricultural pump-sets, (v) Primary Education, and (vi) Adult Education. When this is done, the backlog of some of the districts in these subjects may change. The revised estimates of backlog may then be taken as the basis of further action for removal of the respective backlogs.

19.33. In general, in subjects in which the level of development is sufficiently widespread, it will be necessary to carry the analysis to the sub-district level, identify talukas or development blocks which are below the State average and focuss attention on them. This is a logical corollary of the approach we are suggesting. Backwardness and underdevelopment must be identified and attended to wherever they exist and not swept under the carpet of a district or regional average. (3.36)

19.34. We have presented the financial cost of making up the backlog. This is necessary operationally because practically all remedial action must begin with provision of funds. But there is no implication that provision of funds is all that is needed. In each case, this will have to be followed by appropriate programme and action. We do not spell them out because we think that this will be beyond our competence as a Committee. (3.32)

19.35. After assessing the backlog sector by sector, in Chapter XVII, we aggregate the backlog of each district and proceed to examine how the process of removing the backlog may be initiated within the present framework of Planning and Development in the State. (3.33)

19.36. It may be possible to obtain additional Central assistance to remove the present backlog. But there has to be a commitment that not only any additional Central assistance that may become available but the entire resources at the disposal of the State Government will be directed to reducing the disparities in development within the State. Even more important is a declaration of policy that the effort of the State Government in this direction will not depend upon and will not be limited to any additional Central assistance forthcoming. (3.33)

19.37. We take the total resources as given. We also do not make any recommendations for reallocation of available funds between sectors. This is because the requirements of sectoral balance are equally important and must be determined at the Central and State Government level. (3.34)

19.38. We make our proposals within the framework of present policies and programmes in the several sectors. There is no implication that there is no room for improvement. In particular, there may be room for modifying some of the policies and programmes to suit better the needs and circumstances of certain districts. We suggest that the respective departments should examine this need carefully and modify their policies and

programmes appropriately. (3.34)

19.39. Ideally, to remove general backwardness as distinct from specific backlog, we should prepare a development plan for each district in the real sense of the term and not a mere aggregation of schemes prepared at the State and Central level. We refrain from doing this because again we believe that this takes us beyond our competence as a Committee. (3.34)

19.40. Working within a given total of development funds, its sectoral allocation, and given policies and programmes in the several sectors, and focussing attention on the disparities and backlog, has the advantage that action to remove the backlog can be initiated without delay. We urge that such action is initiated urgently. (3.35)

19.41. Removing the backlog within a given total of development funds implies a certain acceleration of the pace of development in the districts lagging behind and, to that extent, a certain slowing down of the pace of development in the districts which are already ahead. There appears reluctance to admit this implication. It is important that it is recognised and stated explicitly. (3.35)

Process and Mechanism for Removing the Backlog:

19.42. We prefer to make our principal recommendations, as far as possible, within the present framework of Planning and Development in the State of which District Planning is an integral element. (17.2)

19.43. For the purpose of District Planning, the Plan Schemes in the Sixth Five Year Plan of the State Government are divided into (a) State Level Schemes and (b) District Level Schemes. Further, some of the District Level Schemes are put in, what is called, the State Level Pool. (17.6-17.7)

19.44. The outlays on the District Level Schemes, other than those taken into the State Pool, are allocated to different districts according to a certain formula which ensures that the districts backward in certain fields get somewhat more funds than they would if the allocations were made in proportion to population. (17.8)

19.45. The outlays on the State Pool Schemes are distributed between districts as required by each particular scheme and not by any formula. (17.11)

19.46. The outlays on the State Level Schemes are not distributed between districts and are entirely at the discretion of the State Government.

19.47. To initiate a process for removing the backlog in the several sectors/sub-sectors/schemes/programmes, we must draw upon

plan funds or, more specifically, approved outlays on the corresponding Plan Schemes. In the following, we illustrate them with reference to the Annual Plan 1983-84.

Annual Plan 1983-84 : Approved Outlay

(Rs. Lakh)

	<u>All Schemes</u>	<u>Schemes examined by us</u>
State Level Schemes	85,334.78	25,381.38
District Level Schemes in the State Pool	19,075.00	6,373.50
Other District Level Schemes	45,590.22	28,931.69
<u>Total</u>	<u>150,000.00</u>	<u>60,686.57</u>

(17.16)

19.48. We suggest that the Approved Outlay on the Schemes examined by us and hence relevant to removal of the specific backlog should be constituted into what may be called the "State Pool for Removal of Specific Backlog". In the present illustration, it amounts to Rs.60,686.57 lakh and constitutes about 40 per cent of the total outlay on the Annual Plan. (17.18)

19.49. We suggest that the approved outlay on the balance of the State Level Schemes (Rs.59,953.40 lakh in the present illustration) may remain at the discretion of the State Government. The same should apply to the balance of State Pool of the District Level Schemes (Rs.12,701.50 lakh). Regarding the balance of District Level Schemes (Rs.16,658.53 lakh), we suggest that the allocation of the approved outlay to different districts may be done according to the present formula only slightly modified. (17.19)

19.50. Regarding the State Pool for Removal of Specific Backlog, we may clarify that though this is called a Pool, the several specific sectors/etc. the approved outlays on which are brought into this Pool, shall be kept separate and the approved outlay on each shall be spent only on the specific sector/etc. for which it is approved in the Plan. We are concerned only with its allocation between districts. (17.20)

19.51. If the specific backlog is to be removed or reduced as rapidly as possible within the limits of available funds, the entire approved outlay on each specific sector/etc. must be expended in the districts which have a backlog in the corresponding subject. (17.21)

19.52. Nevertheless, some provision is necessary for (a) completing certain on-going works/projects, not relevant to removal of specific backlog, and (b) meeting the needs of natural growth. (17.21-17.23)

19.53. We suggest that 15 per cent of the State Pool for Removal of Specific Backlog, scheme by scheme, should be reserved for (a) and (b) mentioned above. The Government may decide, on the basis of some objective considerations, the division of the total amount so reserved between the two purposes (a) and (b) as also the districts in which the on-going works/projects may be taken up in each Annual Plan within the provisions made under (a). As to the amount reserved for (b), namely for meeting the needs of natural growth, we suggest that it should be distributed among all the districts, with or without a backlog, in proportion to their population because, obviously, all districts, with or without a backlog, need some provision for natural growth. (17.24)

19.54. We wish to emphasise that 15 per cent of the State Pool for Removal of Specific Backlog for (a) on-going works/projects, not relevant to removal of specific backlog, and (b) natural growth, should be considered the maximum allowable on this account. Any larger diversion of funds from the State Pool for Removal of Specific Backlog will seriously retard the process of removing or reducing the backlog. (17.25)

19.55. The remaining 85 per cent of the outlays in the State Pool for removal of Specific Backlog will be available for removal of specific backlog. This should be allocated annually, scheme by scheme, to all the districts, with a backlog, in proportion to their backlog. These annual allocations will have been adequate to remove the backlog in certain sectors/sub-sectors/etc., within the period of the Seventh Five Year Plan (1985-90). As soon as this happens, the districtwise position in relation to the particular sector/sub-sector/etc. should be reviewed. (17.26)

19.56. Thus, our procedure for allocation of funds from the State Pool for Removal of Specific Backlog requires: (a) Identification of approved outlays for specific relevant sectors/sub-sectors/schemes/programmes in the Annual Plan each year; (b) Reserving 15 per cent of the outlays for completion of on-going works/projects not relevant to removal of backlog and for meeting the needs of natural growth; and (c) Allocating the balance of 85 per cent of the funds, sector by sector, to all districts with a backlog in proportion to their backlog measured from the present State average. (17.33)

19.57. These allocations must be treated as earmarked for removing specific backlog and the DPDCs will have no authority to reallocate them to any other purpose. On the other hand, the

DPDCs should be given greater discretion to decide, in consultation with the concerned departments, as to how these funds may be spent so that the backlog may be removed effectively and expeditiously. (17.35)

19.58. Given the funds allocated for removing backlog in a specific sector/sub-sector/etc., the DPDCs will prepare a detailed plan of action indicating its expected effect on the indicator on the basis of which the backlog has been assessed and, at the end of each year, shall evaluate the plan of action in terms of the same indicator. (17.36)

19.59. The process shall continue from year to year during the period of the Seventh Five Year Plan. At the end of the Seventh Plan, the entire position should be reviewed. The exercise we have done to examine regional disparities in different fields and assess the backlog of districts should be reworked in an expanded, improved, and more detailed form. More sectors/sub-sectors/schemes/programmes should be chosen to examine disparities in development; the analysis should be carried wherever justified to the taluka level; and wherever necessary, other and more relevant indicators may be chosen to assess the backlog. That should constitute the basis for continuing the process of reducing the disparities into the Eighth Five Year Plan. (17.37)

19.60. What we propose to initiate is not a programme for removing a given backlog but a continuing process of reducing disparities in development; in other words, an alternative strategy of development, namely, development by lifting the bottom rather than pulling up the top. (17.37)

19.61. We have been asked to suggest long term measures to prevent recurrence of regional disparities in development. We believe that the continuing process of reducing disparities in development as we propose to initiate will ensure that the existing disparities will not increase and, if new disparities arise, they will not go unnoticed. (17.38)

Industrial Development:

19.62. To promote industrial development in the backward areas of Maharashtra, the State Government has been pursuing a two-fold policy: (a) To restrict industrial growth in the Bombay Metropolitan Region (BMR), and (b) To give appropriate incentives to industries going into the backward areas. (13.44)

19.63. The policy to restrict further industrial development in Bombay Metropolitan Region has been effective to some extent; but the policy of incentives has not been much effective to disperse industry much beyond the reach of Bombay-Pune. (13.49)

19.64. It is necessary to pursue the Industrial Location Policy for the Bombay Metropolitan Region with greater rigour and coherence. (13.50)

19.65. No new industrial areas should be allowed to be planned and developed in Zones III and IV of the BMR. (13.51)

19.66. In Zones I and II of the BMR, no new industries, except service industries, be henceforth allowed. It means that new Small Scale Industries shall not be allowed even in vacant galas. Operations such as modernisation, replacement are presently permitted in large and medium industries in Zones I and II. They are often accompanied by expansion. Hence, they should not be allowed for some time to come until the situation is stabilised. (13.52)

19.67. Industrial Location Policy is presently operated through the issue of administrative orders. It will be desirable to have a specific legislation to cover its administration. (13.54)

19.68. One major reason why the Package Scheme of Incentives has not been so effective to disperse industry much beyond the reach of Bombay-Pune is that it does not distinguish between industrially under-developed areas which are near Bombay-Pune and which are not so near. We think that the Package Scheme of Incentives must take into account the factor of distance and compensate sufficiently the areas lying further away for the disadvantage they suffer from. (13.57)

19.69. For purpose of the Package Scheme of Incentives, we approve taluka as the unit of classification but suggest that they should be reclassified into the four Groups A, B, C, & D, on a combined consideration of (i) industrial backwardness and (ii) distance from Bombay-Pune. (13.58)

19.70. The present scale of the incentives is not sufficiently steeply graded to give the needed advantage to Group D talukas over the Group C talukas, and to Group C talukas over the Group B talukas. We recommend more steeply graded scale of incentives. (13.66-13.68)

19.71. We suggest that the Package Scheme of Incentives should be modified accordingly. (13.69)

19.72. There is inordinate delay in the payment of incentives. Needless to say, incentives will not work without their being

paid promptly. Delay in this matter will postpone dispersal of industries and accentuate regional disparities in industrial development. (13.70)

19.73. The possibility of shifting some of the industries now located in the Bombay Metropolitan Region to other areas in the State needs to be explored. It has been suggested that income-tax concession, on lines of the investment allowance, on the assets actually shifted may help. The State Government may pursue this suggestion actively with the Government of India. (13.71)

Agriculture:

19.74. Since soil, climate and crop pattern differ from region to region, it is necessary to have research stations that can carry on research relating to crops specific to different areas, particularly with a view to studying the adaptability of new varieties/practices to the areas. (14.37)

19.75. It is high time that research attention was directed to the problem of irrigated cropping in Vidarbha, particularly the manner and pattern of water use, in view of the heavy black cotton soil in many of the districts there. The desired benefits of increased investment in irrigation depend upon sound water-use technology and proper crop pattern, which have to be experimented and established early. Resources devoted to this end will lay a sound foundation for the agricultural development of the region. (14.37)

Co-operation:

19.76. The State Government should agree to subscribe to the share capital of spinning mills in the proportion of 1:9 irrespective of any NCDC loan becoming available to the State Government for the purpose. (16.39).

19.77. It has been represented to us that the sugar co-operatives have provided a solid base and a jumping ground for agricultural and rural development in Western Maharashtra; that, co-operative processing of cotton and oilseeds can conceivably provide a similar base for development in Vidarbha and Marathwada; and that, therefore, the State Government should provide the same kind of strong administrative, financial and political support to cotton and oilseeds as it has given to sugarcane. We have much sympathy for this perception. (16.41).

19.78. Marketing and processing of cotton and oilseeds are much more complex than the marketing and processing of sugarcane. Hence, to bring the former into the co-operative fold will require much more sustained effort and support. (16.41).

Representation in Services:

19.79. There prevails a feeling that, because of the present concentration of the offices of the State Government in Bombay and Pune, Vidarbha and Marathwada remain under-represented in the services. (18.13)

19.80. An examination of the number of State Government employees stationed in the several Revenue Divisions in relation to the populations of the Divisions, shows that there is an excess of employees in Bombay, Pune and Nagpur divisions and a deficit of employees in Nashik, Aurangabad, and Amravati divisions. (18.16)

19.81. It should be possible to reduce this imbalance at least partly by shifting some of the offices from Bombay to Nashik, from Pune to Aurangabad and from Nagpur to Amravati. Such attempts in the past have failed mainly because of the resistance from the present employees. It also underlines the fact that shifting of an office will not immediately create employment opportunities for the local persons; but, in the long run, it will, and a beginning has to be made. (18.19)

19.82. It is not practicable to shift any of the Mantralaya departments out of Bombay. The number of employees in these departments is also not very large, only about 4,000. But regional representation in these departments is important and relevant. It will be advisable to verify the present position in this respect by means of a census ascertaining for each employees the district of birth and the district of passing the Higher Secondary or equivalent examination. (18.31)

19.83. Insistence on regional representation in services strictly in proportion to population will require invoking the provisions of Article 371(2). We do not think that, bearing in mind the requirements and interests of the State as a whole, the present situation warrants this extreme remedy. (18.32)

19.84. No new offices of heads of departments or public sector corporations of the State Government or new State Government institutions must be located in Bombay and Pune any more; they should be located in Aurangabad, Nashik and Amravati. (18.34).

19.85. Accelerated development in the districts lagging behind will require strengthening of their administration, in the specific departments as also in the general administration. We recommend that the present staff strength in various departments in different districts be immediately reviewed and the administration be strengthened wherever necessary.

Statutory Watch-Dog Authority:

19.86. It has been suggested to us that it will be desirable to provide statutory guarantee that the policy, programme and the process which we propose to initiate in order to continually reduce the regional disparities in development will continue unhindered and untampered with. We agree. (17.42)

19.87. We recommend that a statutory watch-dog authority be established to oversee the policy, programme, and process of reducing regional disparities in development and to report every year. We suggest that it should be a single-person, non-political, quasi-judicial, single authority for the whole State. (17.44)


19.88. We think that, for this purpose, a legislation similar in scope and intention to the Maharashtra Lokayukta and Upa-Lokayukta Act, 1971, will be useful. (17.45)

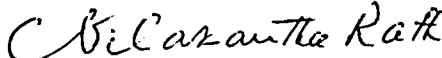
19.89. The proposed authority should be appointed by the Government in consultation with the Leader of the Opposition. He should hold office for a period of five years during which he shall hold no other office. Every year, he will make a report to the State Government which the Government shall place before the State Legislature. (17.46)

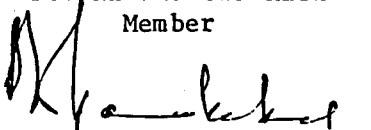
19.90. The proposed authority shall not be an executive authority responsible for implementation of any programme or policies. Its function shall be to investigate and evaluate ex post the policy and the process for reducing the regional disparities as we have recommended, and any other policies and programmes of the Government which might defeat this process; and to make an annual report to the Government which shall be placed before the State Legislature. (17.47)

19.91. We believe that a publicly announced commitment of the State Government to a policy, programme, and process for reducing regional disparities such as recommended by us, an independent authority to report on its implementation, and a public debate on

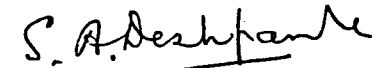
this report, both inside and outside the State Legislature, provide a more effective mechanism to oversee the process of reducing regional disparities and to prevent their recurrence, consistent with the requirements and interests of the State as a whole, than the regional development boards contemplated in Article 371(2). (17.44)

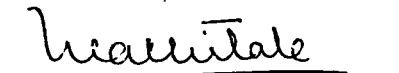

Prof. V.M. Dandekar
Chairman

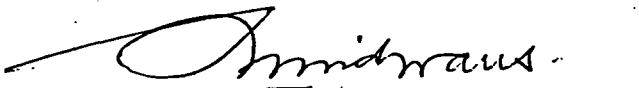

Dr. Nilakantha Rath
Member



Shri P.D. Kasbekar
Member


Shri B.G. Dave
Member

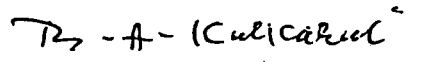

Dr. S.A. Deshpande
Member



Shri M.A. Chitale, Member
(Expert on Irrigation)

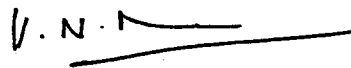

Shri S.M. Vidwans, Member
(Expert on Economics & Statistics)

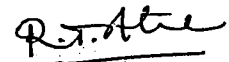

Shri N. Raghunathan, Member
(Secretary to Government)
Finance Department



Dr. Narottam Shah
Member

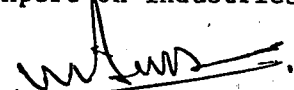

Shri B.A. Kulkarni
Member

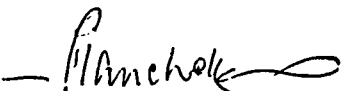

Dr. V.V. Borkar
Member


Dr. V.N. Rao, Member
(Expert on Public Health)


Shri R.T. Atre, Member
(Expert on Roads)


Shri B.N. Bhagwat, Member
(Expert on Industries)


Shri R.C. Sinha, Member
(Secretary to Government)
Planning Department


Shri P.S. Manchekar, Member-Secretary
(Dy. Secretary to Government)
Planning Department

Appendix A

Note of Dissent

by

Shri B.A. Kulkarni

While I am in broad agreement with the Committee's approach and findings and while I do have a great personal regard to all the members of the Committee and specially to its Chairman, Dr. V.M. Dandekar, I feel it my duty to record a note of dissent on the few points on which I could not agree with the views expressed in the Committee's report.

1. Abrogation of Nagpur Agreement

At the end of para 2.13 in Chapter 2, an inference is drawn that Shri V.P. Naik's statement made in the State Assembly on 20th August 1969 'almost amounted to an abrogation of the Nagpur Agreement'. In my view such an inference is unwarranted. What Shri Naik was replacing was 'The 1960 view that Vidarbha, Marathwada and Konkan were less developed relative to the rest of the State and should be given maximum assistance for their development'. What Shri Naik was introducing was 'the districts as units of planning' and 'a direction to secure a balanced development of all the regions of the State the whole of which is more or less underdeveloped'. The whole State of Maharashtra may be considered as underdeveloped relative to a few other States in the country. A balanced development of all the regions in the State implied that the disparities of development between the regions would be removed. I do not think that this new direction was in any way opposed to the Nagpur Agreement. Moreover, the Nagpur Agreement did not envisage maximum assistance to Vidarbha, Marathwada and Konkan. What it provided for was equitable allocation of resources. The other provisions in the agreement related to equitable opportunities for recruitment to State services and facilities for technical education. How can a Chief Minister's statement on the method of allocation of resources nullify these other aspects of the agreement. Even in respect of allocation of resources the agreement makes an exception only in respect of Marathwada and says, 'in view of the underdeveloped conditions of Marathwada, special attention will be given to promote all sided development of that area'. That was not, however, analogous to the purported '1960 view of maximum assistance to Vidarbha, Marathwada and Konkan'.

The Nagpur Agreement cannot, in my view, be treated as abrogated by an occasional shift in the policy of any Government in power. The agreement had been conceived as a 'guiding principle for all future Governments in Maharashtra and its salient provisions have been incorporated in Article 371(2) of

the Indian Constitution as a safeguard against occasional efforts to treat it as abrogated.

In paras 2.13 and 2.14 it is stated that no Member of the House seems to have protested. In my view, no one had protested because nobody had drawn the inference that Shri Naik's statement was in any way in conflict with the Nagpur Agreement or against its provisions incorporated in Article 371(2).

2. Non-official Amendments to Article 371(2)

In para 2.14 it is stated that the two non-official amendments to the Article 371(2) moved in the Parliament were protests against Shri Naik's statement. In fact they were protests against non-invocation of Article 371(2) though conditions in the State according to those movers long warranted its invocation. One of them was moved in 1973 and the other in 1978, i.e. four and nine years respectively, after Shri Naik's statement of 1969. Protests intended against Shri Naik's statement would not have been made in Parliament and that too in the form of amendments to the Constitution. I had the privilege of discussing the matter with one of the movers of the amendment, Late Shri S.K. Vayshampayan who held the same view.

3. Necessity of Invoking Provisions of Article 371(2) of the Constitution of India

In paras 17.43 and 17.44 in Chapter 17, the Committee has come to the conclusion that it is necessary and desirable to have a statutory watch-dog authority with functions of overseeing the operation of the policy and process of reducing regional disparities in development and implementation of the related programmes and making a report every year to the State Legislature. I am in full agreement with this view and also with the Committee's first conclusion (in para 17.44) that such an authority must not be political. I could not, however, share the Committee's view and the line of argument contained in paras 17.44 to 17.47 of Chapter 17 of the report. I differ specially from the following conclusions:

- (i) It (the watch-dog authority) cannot be regional;
- (ii) There has to be a single non-political authority for the whole State;
- (iii) It (the authority) should be a single person, non-political, quasi-judicial single authority for the whole State.

The Committee is recommending a legislation at the State level for setting up the authority. It has expressed inability to spell out the details of the required legislation. The suggestion is that a legislation similar in scope and intention to the Maharashtra Lok Ayukta and Up-Lok Ayukta Act of 1971, would be useful. In para 17.47, the Committee has said that an

independent authority provides a more effective mechanism to oversee the process of removal of disparities and to prevent their recurrence than the regional development boards contemplated in Article 371(2). I do not share this view. The effectiveness of the watch-dog body in such a situation depends upon the politically independent status and powers of the apex authority to whom it reports and the competence and the finality of the verdict given by that apex authority. In my opinion, no watch-dog body in the present political system can be useful or effective unless the Governor exercises his special responsibility independent of the Council of Ministers. No new legislation may be possible to provide for such a special responsibility of the Governor and invocation of Article 371(2) appears the only remedy. Looking to the practical difficulties in getting a new controversial law passed and with a view to avoid tensions likely to be generated through it, it would, in my view, be far more wiser to invoke the provisions of Article 371(2). A simple majority resolution of the State Legislature may suffice to request the President to invoke the Article.

Both the Nagpur Agreement and Article 371(2) of the Constitution provide for establishment of separate Development Boards for Vidarbha, Marathwada and the rest of Maharashtra. The question is what kind of Development Boards are envisaged here, especially in Article 371(2). Is the Board a

- (a) Planning body formulating short term and long term plans for the respective regions;
- (b) an administrative set up quite high in the hierarchy to get development programmes implemented; or
- (c) an organisation undertaking periodical reviews or evaluation of plan performance in respect of the specific reliefs provided by the Constitution to the three regions of the State?

Under Article 371(2) the President, by order, provides for a special responsibility of the Governor for establishment of separate Development Boards. Governor's special responsibility in the Article, and that in the marginal heading of that Article as well as Chapter 19 of the Constitution is, by implication analogous to the 'special responsibilities of the Governors' provided in Section 52 or 53 of the Government of India Act of 1935, where it had been expressly said that in that respect the Governor acts on his personal judgement and would not be bound by the advice of his Council of Ministers. Article 371(2) also begins with the words 'notwithstanding anything in this Constitution'. This and the heading of the Chapter of the Constitution in which that article appears indicate the Governor's Special Responsibility. The orders made by the President regarding establishment of Regional Committees under Article 371(1) for Punjab and Andhra Pradesh did specify that special responsibility on the lines of Sections 52 and 53 of the Government of India Act 1935.

In my opinion, the Development Boards envisaged in Article 371(2) cannot be the ordinary type of planning or executive authorities for the region. The concept clearly is of a body which directly assists the Governor in the discharge of his special responsibilities in respect of equitable allocation of development resources, equitable arrangement providing adequate facilities for technical education and vocational training and adequate opportunities for employment in services under the control of the State Government. The Development Boards under Article 371(2) are, therefore, watch-dog type of bodies (directly responsible to the Governor). The functions of the Boards are to analyse, watch and review whether the allocation of resources, provisions for technical education and recruitment to services are being made under specified principles and to bring whatever is inconsistent with those principles to the notice of the State Legislature and the Governor through their annual reports.

The mechanism envisaged in Article 371(2) is to function within the democratic traditions of Government and with due regard to the rights of elected representatives of the people and yet is to duly safeguard regional interests, in respect of matters provided in that Article. The work does not appear to be that simple. It will be putting on trial, the Board Members' faith both in the democratic working and the unity of the State of Maharashtra as well as their sense of responsibility and fair judgement.

Another objection raised against invoking Article 371(2) is that it implies intervention of the Central Government in the affairs of the State. In my view that is not true. The State itself functions under the Constitution. Appointments of the Governor and of High Court Judges are made by the President. Many bills have to be sent for approval of the Central Government before they are introduced in the Legislature. President's assent is required after they are passed by the Legislature. No one has ever said that these constitutional requirements amount to Central Government's intervention.

With whatever little probing the Fact Finding Committee has been able to do, it has brought forth substantial disparities in development in several sectors. The Committee could not cover many more sectors which might also reveal similar disparities. The question now is of a guarantee that the process of removal of backlog should be carried out with a firm commitment and should not depend upon the political vicissitudes in future.

Recourse to action under Article 371(2) is, in my view, the only such guarantee available for the purpose. A mechanism set up under the State's political authority may not, moreover meet the apprehensions of the people in Vidarbha, Marathwada and many lagging districts of Western Maharashtra about their continuing to be neglected in future. The findings of the Committee have shown that their sensitivities about the future are not wholly unjustified.

Article 371(2) rightly envisages three separate Development Boards for the three regions. Their functions would be exacting and at times might also be mutually conflicting. Instead of one authority protecting the interests of all the three regions and their numerous backward districts it should, therefore, be appropriate and quite fair that each region's point of view is separately available to the Legislature and the Governor so that they may discharge their respective responsibilities much better and in a fully informed manner.

In my view, therefore, the Committee should have suggested recourse to action under Article 371(2) as the only appropriate long term safeguard for ensuring

- (i) the backlogs that are presently identified are removed;
- (ii) the process of determining backlogs and removing disparities continues over a long term;
- (iii) the disparities do not recur in future.

Appendix B

Note of Dissent

by

Dr. V.V. Borkar

APPROACH TO THE PROBLEM

This note is divided into two sections. The first section contains some critical comments on the Committee's report. The second section explains the basic minimum conditions that have to be fulfilled for reducing inter-district disparities and highlights relevant aspects of the problem.

SECTION-I

INTRODUCTION:

The term "balanced regional development" of a State can be understood in varying senses. It may imply no more than paying token attention to the development needs of the lagging regions. As a result, all parts of the State may grow to a more or less extent. Such a policy is consistent with persistence of inter-regional inequalities or even their accentuation over time as has actually happened in some spheres. (One should not read too much into the apparent reduction in the inequalities in the inter-district per capita incomes in Maharashtra over the period from 1955 to 1978 as depicted in the relevant statistical tables owing to the shortcomings in the methodology adopted for computing the district domestic product which are explained in chapter 3 of the present Report; e.g. see paragraphs: 3.4, 3.5, 3.6). On the other hand, the term could represent a situation of gradual reduction and ultimate elimination of inter-district economic disparities. It is a matter for gratification that the terms of reference of the Committee require it to suggest measures with the latter interpretation in view.

Judged by its approach and recommendations, the Committee seems to have accepted the first mentioned modest goal which is not likely to remove completely regional disparities in the average standard of living of the residents of different districts in Maharashtra in the foreseeable future. The question of ensuring that the regional inequalities do not re-emerge in future as desired by the terms of reference becomes relevant only after the existing differences are first eliminated.

There are a number of reasons why the Committee's recommendations do not go far enough to take Maharashtra to the desired goal of evenly developed districts within a reasonable period of time.

1. THE ALL-IMPORTANT COMMERCIAL SECTOR DOES NOT RECEIVE PROPER ATTENTION, UNLIKE INFRASTRUCTURE.

In the first place, the Committee has addressed itself mainly to the task of reducing inequalities in the infrastructure rather than in the commercial sector. While territorial distribution of infrastructural facilities such as roads, electricity, irrigation, education, health is crucial, in that they constitute the essential prerequisite for promoting inter-district parity in the development of the commercial sector (broadly comprised of agriculture and industry, social services having been bracketed with infrastructure). It is the state of the commercial sector that reflects and measures, in the ultimate sense, the degree of development of any territory. In a sense, infrastructure in a district is a means to an end - the end being the development of the commercial sector which produces the final goods and services whose value represents the district income (district domestic product) and also incorporates the contribution of the infrastructure. The relative rates of growth of the commercial sector of the different districts are decisive for evening out their unequal development. Only a weak and halting strategy is churned out by the present report for reducing the inequalities in the commercial sector which forms the quintessence of the entire growth process. In other words, if inter-district disparities in growth levels are to be reduced, one has to operate ultimately on the growth process as affecting the commercial sectors of the concerned districts. But the Committee's approach to the development of the commercial sector of the below-average districts is palpably inadequate in contrast to its proposals governing infrastructure development. No attempt is made to assess the extent of inter-district imbalance or identify the districts below the State average and measure their backlog in respect of agriculture and industry. Unlike what has been done in the case of infrastructure, here both private and public productive assets in agriculture and industry will have to be considered. If for any reason it is not possible to collect all the statistical data, one will have to fall back on surrogates. But the Committee has wilfully avoided all this. Leave alone private investment, even the outlay of the government and other public institutions on agricultural and industrial development district-wise has not been compiled. The problem has been side-tracked by making distance from Bombay and not solely industrial backwardness the criterion for differential treatment. By its contrasting approaches to infrastructure and the commercial sector, the Committee has placed the means above the end; or assumed that if the means exist, the end will take care of itself. This is fallacious since infrastructure does not include each and every productive agent (including entrepreneurship and other inputs) needed for the development of the commercial sector; consequently, the infrastructure

facilities generated at considerable cost might remain under-utilised, unless a direct attack on the problem of underdevelopment of the commercial sector in backward districts is simultaneously launched. It is vital to extend the result-oriented approach adopted by the Committee in respect of infrastructure, as far as practicable, to commercial sector also.

2. TIME-BOUND PROGRAMME ABSENT.

As corollary, a time-bound programme is absent. Introduction of definite time frame lends, especially in the public eye, credibility, certainty and ready assessability to the programme. With the approach adopted by the Committee, especially with regard to the commercial sector of the districts, there is no definite time schedule for elimination of inter-district disparities in the per capita district incomes (mainly contributed by the commercial sector), since no clear time-path of the relative growth of the commercial sectors of the districts is chalked out by the Committee. Such a time-path is evident, however, in the case of infrastructure development in the districts and the Committee should have converted this into a time-bound programme also. Even then, the vagueness and uncertainty that characterises the relative growth of the commercial sector of the districts, under the recommendations of the Committee, cannot render its overall programme time-bound.

3. PRIVATE FACILITIES IGNORED.

There is another major shortcoming in the approach of the Committee. It has deliberately chosen to ignore privately generated infrastructure facilities in inter-district comparisons. What needs to be compared in assessing territorial disparities is the overall level of various services regardless of their origin in the private, cooperative or public sectors. The levels of living enjoyed by the residents of different regions are not affected by such varying origins. What is relevant is the total (per capita) services available. Exclusion of private contributions to the infrastructure has two implications. Firstly, this procedure understates the interdistrict inequalities, since generally private facilities are concentrated in the relatively developed districts. For instance in the irrigation sector, they are concentrated in Kolhapur-Sangli area. Moreover, these irrigation facilities cannot be strictly termed private. They should rather qualify as joint sector facilities since the State Government collaborates in the construction of small dams in the local streams which results in raising the subsoil water table in the surrounding area. The private farmers then reap the benefits by sinking wells and lift irrigation. Even this joint sector contribution is ignored.

In the case of technical education the picture becomes grossly distorted to the detriment of backward districts owing to exclusion of private facilities which happen to be sizeable. For instance, out of a total of 94 I.T.Is in the State, 35 are non-

government I.T.Is., almost all being located in relatively developed areas (see table 10.1 and para 10.4). For the same reason 110 technical high schools and centres mostly concentrated in developed areas out of the total of 230 have not been taken into account in the inter-district comparison (see table 10.2 and para 10.12).

The same is true of public health. The medical and health services provided by private practitioners, clinics and hospitals, etc., have been excluded by the Committee while assessing the level of development of this sector district-wise. All this is in contravention of the terms of reference which require the Committee to assess the interdistrict disparities in the light of the overall degree of development. If private sector contribution is ignored most of the disparities might get sharply reduced. Territorial disparities are largely generated by the unhindered operation of free market forces (viz. private enterprise) and to keep out of consideration what they have done is in a sense to assume away the problem of regional imbalances.

The second implication of this procedure is to tone down the scale of suggested remedial policies commensurate with the lower degree of inter-district disparities as identified by the Committee. The disparities generated in the infrastructure by private activity are left untouched, and there is no proposal for remedial compensatory public action in the disadvantaged areas. This is unusual and unacceptable. If this approach is extended to the commercial sector where the major productive activity in agriculture and industry is private, the corresponding backlog of lagging districts will be reduced almost to the vanishing point. Thus the Committee has not made any serious attempt to assess the backlog in the commercial sector. This is a serious lacuna.

The reason for omitting private contribution to the infrastructure and not making a proper effort to measure the backlog in the commercial sector (or at least use surrogates) could not be lack of relevant statistical data. The reason is to be sought in the Committee's restricted approach and its narrow view of the role of Government.

4. THE ROLE OF THE GOVERNMENT UNDERPLAYED:

Even in Western capitalist democracies the scope and range of governmental functions has expanded fast, not to speak of developing countries like India committed to socialist planned development.

Four types of governmental action for accelerated development of lagging districts can be visualised. The first two comprise direct public investment in infrastructure and commercial sectors and the other two relate to the regulation and promotion of private investment. Public investment may appear as a contribution to the normal growth process and/or in a compensatory form, viz., public investment aimed at making good the persistent shortfalls in private activity in specific areas

even after making all reasonable attempts to encourage or regulate it spatially or otherwise in two distinct ways: by a system of physical controls like licencing or graded incentives or curbs mostly financial, representing a passive method; more active and effective would be the promotional method which institutionalises the provision of a variety of supporting services for the benefit of private investors in backward districts. Promotional services may represent varying shades of constructive involvement of the Government in the private sector activity which in extreme form may appear as State-partnership in 'cooperation' the 'assisted' and 'joint' sectors. For the economic regeneration of the commercial sector of backward districts, besides the provision of other essential prerequisites, Government's promotional and compensatory activity has a critical role, which has not received the stress it deserves in the Report of the Committee. They all imply differential treatment of districts.

One reason why the Committee excludes private facilities in infrastructure is ostensibly its aversion to expanding Government activity involved in compensatory public action in lagging districts. As stated earlier, this results in the statistical narrowing of the disparities and consequently obviates public action to correct them to that extent. The fear that compensatory public measures would discourage private initiative is unfounded. That private medical practitioners have proliferated fast in Aurangabad following the creation of sizeable medical facilities in the Government Medical College is eloquent proof. The latter project had made the people more health conscious. Where initiative exists it asserts itself and is not usually suppressed. The inter-relation between public and private sector is complex and they are not necessary mutually antagonistic. As regards relative efficiency, the Indian experience shows that there is little to choose between them, considering the incidence of sickness.

5. PREFERENCE FOR TALUKA AS A UNIT:

In spite of informed opinion in Marathwada and Vidarbha wishing that the 'region' should be adopted* as the unit for assessing their relative level of development and the backlog; and the terms of reference of the Committee indicating both the 'region' and the 'district' for this purpose, the Committee has (e.g. in the case of irrigation and industry) gone out of its way in adopting the 'taluka' as the unit. The Committee has also recommended that their entire exercise should be revised making the 'taluka' the centerpiece of the analysis. This is unwarranted and undesirable. It should be noted that as we move down from the region to district, taluka and village in selecting the unit for this purpose the backlog of backward regions and districts decreases progressively and the resources available for uplifting these territories will also correspondingly dwindle.

* Not solely for preserving separate identity of the region.

If backwardness is identified taluka-wise, even developed districts will attract extra allocation of resources in the name of the backward talukas, since growth is not evenly spread within their areas. This procedure would aggravate inter-district (and more so inter-regional) inequalities. In the march towards the goal of balanced regional development, a time will come when 'taluka' would be accepted as a unit; but that would be after inter-district balance is first accomplished. Adopting districts as units does not preclude paying attention to relatively backward talukas within the limits set by the total district allocations based on the norms of natural growth rate and backlog of the district. This method would promote intradistrict balance without further aggravating inter-district imbalance.

Moreover, a taluka is not an optimum unit for dispersal of industries, except for household and 'tiny sector' industries. The 'catchment area' of even 'small-scale' industries often extends far beyond the taluka.

For large modern industries, the district and even the region become relevant units. The Committee is possibly swayed by the present industrial policy of Maharashtra which regards taluka as the unit. But if an existing policy militates against the basic objectives, it is the duty of this Committee to suggest a review.

In a capital-scarce country, if resources are too thinly spread over a wide territory, they may not be very effective.

In view of the resource constraints, a developed district which has at least some industrialised talukas should not get special facilities towards the industrialisation of the remaining talukas until an equal number of talukas of backward districts get industries. It is not unreasonable to suppose that the benefits of these industries accrue to all residents of the district (including of non-industrialised talukas) since the district and even the region is a high-mobility zone and these people tend to move readily to jobs wherever available in the proximity.

CONCLUDING REMARKS

As pointed out above, the Committee has often deviated from its terms of reference. One could excuse such departure from its mandate if this resulted in any extra benefits to backward districts. This is not the case. Every time this has conferred relative advantage on developed districts. Such violation of the terms of reference is both unwarranted and undesirable; and has, as noted, resulted in diffusing and even side-tracking the issues.

SECTION - II

Economic Imperatives of a Policy for Balanced Regional Development

For reducing inter-district inequalities, the gaps in the per capita income levels of the thirty districts in the State have to be progressively narrowed down over the years. This can happen only if the per capita income of the backward districts steadily increases at a higher rate than of developed ones. This in turn envisages the expansion of production capacity (in agriculture, industry, etc.) at a faster rate in the former as compared to latter districts. In other words, given the capital output ratio, the per capita investment (which augments productive capacity) in the commercial sector must be higher in the backward than in developed districts. True, economic development required much more than investment in the commercial sector, but this rate is still crucial. The immediate prerequisite for such a consumption is the adequacy of the infrastructure comprising irrigation, transport, power, training, credit, etc. facilities in the lagging districts. The present report has appropriately placed emphasis on comparatively larger investments for upgrading the infrastructural facilities of backward districts. But it does not show equal solicitude for the steady expansion of the commercial sector of such districts. It is futile to expect reduction in inter-district economic disparities unless the rate of per capita investment in the commercial sector in each district varies inversely as the degree of its development. This is a tall order and it is easy to say that this is not practicable. But this cannot be allowed to serve as an alibi for not accomplishing the maximum that is possible in this direction. Unfortunately, the Report does not pay sufficient attention to the development of the commercial sector in backward districts. Contributions to investment in the commercial sector in any district emanate from diverse sources such as private entrepreneurs, co-operatives, public enterprise or a mix represented by the 'assisted' and 'joint' sectors. This investment considered in its totality must be spread progressively district-wise as noted above. The goal of reducing territorial inequalities has eluded us so far because at best the endeavour has been to distribute only public expenditure --- may be only a part of it --- progressively districtwise. Besides, this has been for the most part applied towards creation of infrastructure as distinguished from the commercial sector. Even the location of public enterprises which form a component of this sector have in practice aggravated the regional inequalities rather than mitigated the situation.

It would be tautological to attribute the backwardness of some areas to the nonavailability of a sufficient number of private entrepreneurs to transform agriculture or industry (viz. the commercial sector). Maharashtra typically lacks a traditional business class. But experience in some developed

districts in Maharashtra shows that the proper attitudes and qualities of the mind can be successfully inculcated; and once the process starts, it steadily feeds on itself and gathers momentum. Already there exist public programmes for identifying, motivating and training potential entrepreneurs, provision of finance, material inputs, technical and managerial guidance and marketing facilities.

The activities of a string of public institutions like DICs, MIDC, MISSIDC, SICOM, MSEB, MSFC, nationalised Banks, Regional Development Corporations, etc., have to be considerably strengthened, streamlined and coordinated in backward districts. Their activities still leave lots of room for improvement. Both resource based and foot-loose industries that can be appropriately located in each backward district have to be identified and blue-printed. Most of the local young men participating in the programme are likely to be first-generation entrepreneurs lacking support and guidance from relatives and friends; they deserve all the fostering care, encouragement and help. The public servants have to give up their traditional ways and go out to help these budding entrepreneurs who should be regarded as social benefactors and assume the role of "activists" with the help of local advisory groups, if necessary. There must be some trouble shooting agency to attend to the teething troubles of nascent industries in backward districts. (This agency could perform some of the services rendered by the erstwhile managing agency system but without its exploitative proclivities). Of course, the desired functions could be assigned to the existing developmental bodies. While the normal public facilities would be available to the commercial sector all over the State, the per capita quantum and quality (intensity) of such services should improve directly as the degree of backwardness of the district.

Those who understand the nature and causes of the vicious constellation of forces perpetuating backwardness, very well know that for the initial effective thrust, the Government has to play a decisive role. While announcing a set of sharply graded incentives and other promotional help to industries is welcome, these services would bear fruit only to the extent entrepreneurs come forth with investment proposals. The Government's active involvement in the process of development management in backward districts as indicated above is imperative. The MIDC and SICOM should henceforth concentrate their activities mainly in below-average districts.

The industries that immediately suggest themselves for location in the backward districts are resource-based --- based on local produce of forests, farm, minerals, etc. If backward areas miss even such obvious opportunities based on scientific location principles, there can be little room for optimism. If the quantity of raw material produced locally is not sufficient, the processing industrial unit can be located in any district within the parent division, so that it can absorb raw material originating in more than one district. As stated earlier, the

region or division also represents a high-mobility zone and people from all the constituent districts of the division can be expected to benefit from the project to some extent. There must be an unwritten law that all raw material of local origin shall be processed right upto the final stage in the concerned district or division. More sugar factories, cotton spinning and weaving mills, oil-crushing and processing units and numerous ancillaries linked to such industries must be set up in Vidarbha and Marathwada districts. The usual plea that such a policy will inconvenience industries already in developed districts, which presently exploit this raw material is tenuous and unacceptable. The developed districts cannot continue to prosper by perpetuating the backwardness of less fortunate areas. They can search for new sources of raw material. In any case, in the long run, the development of backward areas will benefit developed regions by enlarging the demand for their products.

Agricultural and industrial transformation in backward districts should be thought of together as they are closely inter-linked. Far-reaching changes have also to be introduced in the educational system which has deteriorated to a ritualistic exercise, unrelated to the socio-economic needs. A substantial portion of the course content covered by the far-flung undergraduate colleges should be vocationalised. Even if this change motivates a minor fraction of the trainees to opt for self-employment and entrepreneurship, it would have achieved its purpose.

Even with all these steps, it would be unrealistic to expect the backward districts to throw up promptly a sizeable bunch of private entrepreneurs who could push up per capita investment (from all sources together) to the target level. It takes time for a new culture to percolate and proliferate.

In the meanwhile, to supplement the private investment, public sector or mixed regimes such as represented by the 'cooperative' 'joint' and 'assisted' sectors will have to play a vital and pioneering role especially in below-average districts. Proper choice of dispersed major and minor growth centres in each district can ensure balanced intra-district development. For best results, the policy for eliminating inter-district disparities has to be integrated with a suitable growth strategy. The thirty districts should be ranked according to the development of their respective commercial sectors on the basis of a composite index incorporating a few strong*, equally weighted indicators like per capita consumption of finance, electricity, fertilisers and proportion of factory workers to total population. Since a census of production capacity districtwise may not be immediately practicable, we have to fall back on surrogates. Far from being inimical to private investment such state partnered activity is a precondition of its sustenance and will act as a catalyst by fostering a congenial

*Sensitive to the degree of growth and modernisation of the economy of a region.

business. climate, providing opportunities for private entrepreneurs in the ancillaries, etc. and creating new demand. This fully conforms to the industrial policy of the government in our mixed economy. It is well to be forewarned that even if all such investment projects in the commercial sector materialise, the rise in per capita investment in backward districts will still be insufficient to overtake this rate in developed districts in view of the large doses of investment contributed by clusters of private entrepreneurs there. What has been briefly outlined above is the minimum programme to achieve the modest goal of slowing down the persistent trend under the free market system towards widening of the interdistrict inequalities.

What sort of institutional framework is needed to render the type of services outlined above? For this purpose as mentioned earlier, Maharashtra, like other States, can boast of comprehensive and impressive promotional and developmental paraphernalia comprising MIDC, SICOM, MISSIDC, MSFC, regional development corporations besides the central institutions. Is the combined result of their operations such as to make the interdistrict per capita investment (from all sources) in the commercial sector proportional to the degree of backwardness of the districts? If this economic imperative is not observed, interdistrict disparities cannot be reduced, whatever else might be achieved, however spectacular the institutional paraphernalia, not excluding the regional development boards, or expensive or innovative the development projects may be. There is always the danger of missing the essential for the peripheral. The overall institutional set up must yield results in terms of this basic economic imperative. The task is so stupendous and the public resources so limited that the state may have to concentrate a major part of the available resources on below-average districts for some time. (Leaving aside a small fraction, say 10 per cent, to meet the requirements of the natural pace of growth in all districts). The developed districts are in a position to fend for themselves. The only question is whether this is politically feasible in view of the determined pressures exerted by the political heavy-weights and powerful vested interests in the relatively affluent parts of the State.

The compensatory fiscal policy recommended by J.M. Keynes is very relevant in this context. Converting his counter-cyclical policy into counter-underdevelopment policy involves two modifications : Firstly, public investment must be confined to highly productive projects. Secondly, inter-temporal context should be substituted by inter-regional. This means that after encouraging private enterprise by all possible means in backward districts, the underdevelopment gaps should be bridged by appropriate public or quasi-public investment in agriculture and industry (viz. commercial sector) there. This, of course, presupposes availability of infrastructure. One can expect results only when action is commensurate with and closely geared to the scale and complexity of the problem of regional imbalance in Maharashtra. The government has to play effectively regulatory, promotional, and compensatory roles for eliminating inter-district Eco disparities in the State within a reasonable time. 478

A more determined public thrust is indispensable and also practicable.

inter-district economic disparities in the State within a reasonable time.

A more determined public thrust is indispensable and also practicable.

Appendix C

Supplementary Note

by

Dr. S.A. Deshpande and Shri B.G. Dave

We agree with the basic approach adopted by the Fact Finding Committee towards the problem of regional disparities in the State of Maharashtra. We also believe that the recommendations made by the Committee would go a long way towards reducing the disparities which exist in different districts of the State and consequently would reduce the backlog in different sectors at present prevailing in backward regions like Vidarbha, Marathwada and Konkan regions of the Maharashtra State. We agree that some authority on the lines of Lokayukta would be necessary to ensure that the recommendations of this committee are faithfully implemented.

2. The procedure recommended in this Report expects to take into account the "developmental backlog" of the districts and suggests methodology for its correction and removal. It is not unreasonable to entertain the hope that if these recommendations are scrupulously carried out, then, within a reasonable span of time, the levels of district disparities would get reduced and the clamour over "backlog" would subside.

3. However, the "safeguards" which are being proposed by this Committee for Governmental action in bringing the less developed districts upward and reducing inter-district disparities have to be viewed in the historical perspective. As already narrated, specific measures were agreed upon for taking care of regional feelings and levelling off imbalances in development at the time of formation of the State of Maharashtra, but the hopes were belied and disparities further accentuated. This factor must weigh with this Committee in making its recommendations for future course of action.

4. Article 371(2) of Constitution provided an assurance to the people of Vidarbha and Marathwada that special problems of their development as well as growth would be taken care of. "Equitable" allocation of funds for developmental expenditure was the main plank of this assurance. It was further laid down that there would be "adequate facilities" for technical education, vocational training as well as adequate opportunities for employment in the services for these regions - again on "equitable" basis. And of course, monitoring of these assurances annually by the State Legislature provided reasonable opportunity of public hearing of the subjects. All these were adequate measures in assuaging the fears of Vidarbha and Marathwada at the time of merger with Maharashtra.

5. We believe that in the existing situation, it is advisable to take into account the complex nature of "developmental disparities" of each district of Maharashtra and carry out a series of long-drawn exercises with firm discipline to steadfastly reduce these disparities. Such a course of action is a logical culmination of the process indicated in Article 371(2). But at the same time, while recommending measures which go much beyond the scope of Article 371(2) and suggest a just and equitable process of developmental evolution for each and every district of Maharashtra, we do not believe that Article 371(2) has lost its relevance or topicality. Moreover, no provision of Article 371(2) contradicts or comes in conflict with the set of recommendations we are making for removal of "backlog" as these recommended programmes are a corollary and continuation of scheme of things envisioned by Article 371(2).

6. In recent times, invocation of Article 371(2) has become a political demand in Vidarbha and Marathwada. Experience of unmitigated "backlog" in development has led many people to sincerely believe that provisions of a statutory safeguard, already in our Constitution should be invoked. It has to be remembered that in the last 3 years, there had been a spate of special "announcements" for removal of developmental "backlog" for the regions of Vidarbha, Marathwada and Konkan on the part of the State Government but again, the actual pace of implementation of these "announcements" had been tardy and unsatisfactory. This has only further disillusioned the people.

7. In this background, notwithstanding the fact that the measures being suggested by this Committee are much more comprehensive, more pervasive and just and fair for each and every district of Maharashtra, we consider it prudent to make a specific recommendation that provisions of Article 371(2) should be invoked. The State legislatures may pass an appropriate Resolution for Presidential Order and we further propose that the State Legislature can combine the procedures suggested by this Committee with the provisions of 371(2) so that there could be separate development boards for Vidarbha, Marathwada, Konkan and rest of Maharashtra and these boards can make reports on their respective working to be placed each year before the State Legislatures. These reports would cover not only the item of (b) and (c) of Article 371(2) but shall take care of other items of different indicators of development which are being proposed by the Committee.

8. Grievances of the people - allowed to accumulate over the years, whether real or imaginery - when snowballed into political agitations - need very careful handling. Today, "Article 371(2)" has become a political issue with the regions of Vidarbha and Marathwada and wisdom lies in gracefully accepting the demand. But while doing so, the wider package of measures - more specific and relevant to our times should also be adopted and skillfully fused with the safeguards of 371(2) so that the pace of development for all the backward districts of Maharashtra may be accelerated and genuine integration of the State may be hastened.

Appendix D

Supplementary Note

by

Shri B.A. Kulkarni

1. Strengthening of Development Administration

I had proposed to the Committee to recommend strengthening of development administration on aspects which in my view are very important to the process of removing disparities and preventing their recurrence in future. Any approach in the sense of a comprehensive programme of administrative reform was no doubt beyond the scope of the Committee's work. Nevertheless, the Committee is concerned with the effective implementation of the policies and programmes articulated in the earlier chapters. It is imperative, therefore, that all deficiencies and disparities in various districts arising out of historical background or otherwise, are identified and quickly removed so that the administrative systems of all departments in all districts and at all territorial levels are geared up not only to cope up with the task of implementing the programmes for removal of disparities but also of overcoming the basic handicaps which have, in the past, retarded the process of development in some districts. The Committee could not incorporate those proposals in its report, probably because there was not enough time to deliberate. I am putting them on record in their note, because I think they are important and relevant.

In para 3.25 in Chapter III, a reference has been made to the National Committee on Development of Backward Areas adding to the six types of fundamental backwardness, two more categories, viz. :

- 1) the areas where feudal elements prevail in production relations or which suffer from feudal hang-over; and
- ii) the areas which suffer from the lack of administrative presence and where the potential for development is not realised because the supporting systems of research, extension, credit, input deliveries and marketing are poorly developed and indifferently staffed.

The Fact Finding Committee also noticed during its tours in the districts that some underdeveloped areas have suffered because of the generalised and centralised approach and stereotype schemes and programmes launched in several areas irrespective of the socio-economic conditions or the deficiencies in the prevailing levels of administration or development.

2. Standardisation of staffing patterns, etc.

I have reasons to believe that there are significant differences in the staffing patterns from district to district which might have in some cases slowed down the pace of development. These differences arose out of historical factors and have perhaps continued in many departments. Some state level corporations and organisations do not have any activities or staff in several districts. The Committee was not told of any attempt made in the last 25 years to bring them to any uniform standards and thus to strengthen the administration in the backward districts. In Chapter III, the Committee has explained that removal of disparities in any sector of development or service implies accelerated development of the backward districts. Effective implementation is the key to any such programmes of accelerated development. It should require substantial strengthening and streamlining of administration in various districts. Administrative organisation or institutional support should not, therefore, be left wanting in any backward district in any sector because programmes for accelerated development are not likely to succeed, if they are superimposed upon the existing weak administrative set up.

The structure of territorial units below the district and the standard of staffing in all the departments and at all the levels starting from the divisions to the lowest units should, therefore, be quickly reviewed to locate shortfalls or deficiencies with reference to carefully designed norms --- with reference to criteria other than the existing workload because low workloads are, in many cases, symptoms of backwardness which it is intended to correct. All departments, boards, corporations and other agencies should immediately undertake and complete reviews of their staffing patterns in various districts. All the deficiencies or disparities identified in the process should be set right and administration at all levels should be adequately and also equitably strengthened before the end of the year 1984-85, i.e. before the launching of the Seventh Five Year Plan. If the additional costs in filling the gaps and raising the staff to an uniform standard in any organisation or department appear heavy, that organisation or department should achieve the uniform staffing pattern by transferring the required posts from the above average districts to the districts having shortfall.

The norms of allocating annual contingency grants to lower administrative units in several departments are also reported to be lower for backward districts and no attempt has been made to correct such deficiencies. The Committee should have suggested that there should be a positive policy to correct such anomalies. Each department should, therefore, carefully look into such allocations for immediate correction. Such a correction may not also involve any additional expenditure. The issue is only of a fair distribution and of curbing the tendency of indifferent management at lower levels.

3. One more Revenue Division in Marathwada

Aurangabad division is a relatively large unit comprising 7 districts. All the districts of this division have a backlog in several sectors. For that reason and also because of the lower levels of development of communications, it is necessary that a new division is carved out of Aurangabad division and the present relatively under-administered pattern in the region is strengthened. Looking to the agro-climatic conditions, the Committee may suggest formation of a new division comprising of Nanded, Parbhani and Latur districts with the headquarters located at Nanded. Aurangabad division may, in that case, consist of remaining four western districts of Marathwada, viz. Aurangabad, Jalna, Beed and Osmanabad. All these districts have a large number of drought prone talukas and chronically face problems of acute scarcity. Formation of the new division would provide the required strengthening of administration of all departments in all the seven districts where it is needed most because most of them also have substantial potential for development, yet to be realised.

4. Reducing the size of talukas

The average size of the talukas in Vidarbha region had been abnormally large both by area and population. After a lapse of about 20 years, the Government realised it and in May 1981, reorganised the then existing 39 talukas into 105 new talukas. With the addition of 66 new talukas, all the talukas in Vidarbha region now correspond to the N.E.S. pattern block size. Thus for every N.E.S. block now, there is in Vidarbha region a corresponding taluka level administration for all departments. The situation in Marathwada and Western Maharashtra is, however, different. N.E.S. blocks had not been separately carved out in those two regions and instead each taluka was sanctioned a multiple number of N.E.S. blocks for allocation of budget. The standard talukawise staffing pattern for all the departments, therefore, is available only for a multiple number of N.E.S. blocks and not for each N.E.S. block separately as in the Vidarbha region. Even the blockwise Panchayat Samitees and their staff is not available in those regions separately for each N.E.S. unit but only for each taluka comprising of a multiple number of N.E.S. blocks. In areas where communications are poorer the larger areas the Panchayat Samitees or the other departments administer do depress the quality and level of administration, reduce the extent of people's participation, encourage semi-feudal tendencies and reduce the effectiveness of administration and implementation of all programmes of development.

From the Fifth Five Year Plan onwards, there are a few Plan schemes operating on a uniform blockwise pattern of financial assistance all over India. One of them is of I.R.D. grants per annum per block for bringing a desired number of families above the poverty line. The grants are half from the

Central Government and half from the State Government. In Western Maharashtra and Marathwada regions, these grants both from the Central and the State Governments have been released on the uniform pattern applied on per taluka basis and not on per N.E.S. block basis. For the entire period of the Sixth Five Year Plan, therefore, the below-poverty line groups of families in almost all talukas of Western Maharashtra and Marathwada regions have been getting less than half of the financial assistance of what is available all over India. In Western Maharashtra, the total number of N.E.S. blocks is 259 while the number of talukas and Panchayat Samitees is only 146. The annual loss, therefore, is of 113 units. Similarly, the number of N.E.S. blocks in Marathwada is 77 and that of the talukas and Panchayat Samitees is 46. The annual loss in Marathwada is thus of 31 units. For the year 1983-84 the actual loss of financial assistance to the below-poverty line families is Rs.9 crores in Western Maharashtra and Rs.2.5 crores in Marathwada respectively. Half of these amounts would have been received from the Central Government. This is a huge and perpetual loss in development effort. Thus, the relatively larger size of talukas and Panchayat Samitees is not only reducing the effectiveness of development programmes in those two regions but is also depriving the poorest families of substantial development finance otherwise available all over India.

In my opinion the Committee should have suggested that larger talukas in both these regions should be split up and new talukas and new Panchayat Samitees should be formed as far as possible to correspond to the N.E.S. block size. This process should be completed on priority where there are relatively larger rural populations in the existing talukas. Strengthening of administration at such small level is going to substantially add to non-development expenditure but it is necessary to correct these anomalies arising out of historical reasons as otherwise it would mean denying equitable access to administration and development assistance to the people who need them most.

Some Southern States (e.g. Andhra Pradesh) had been making a case before the Finance Commissions that they had similarly poorly administered regions which needed substantial improvement of per capita spending on administration and on that basis had been claiming special consideration in the devolution of Central revenues. It may also be possible to formulate plan schemes for filling such deficiencies and strengthening the general and development administration in the rural areas of the State, which, for historical reasons, have remained relatively underdeveloped.

5. Presentation of Statistics for Regions, Divisions and Districts

The Committee has noticed that for the last about 15 years the State Government has not been presenting statistics either for regions, i.e. Western Maharashtra, Vidarbha and Marathwada or separately for the administrative divisions. The

underlying reason might have been an apprehension that presentation of regional statistics would accentuate regional feelings within the State. In fact, non-publication of regional statistics had led to adverse impressions in some quarters that regionwise statistics are not presented so as to conceal the faults of administration and the continued underdevelopment of some regions. It is not difficult to build up divisional or regional totals from the districtwise statistics which are regularly published by the Directorate of Economics and Statistics. I do not see any valid reason for not publishing the divisional or regional totals for all published statistics, more so because the follow-up or monitoring of plan programmes is also done at the divisional level. The divisional level statistics should, in fact, be useful to all the higher level planners and policy makers. If in any development sector, the divisional level statistics show deficiencies or development lags for any division or region they should be useful for taking immediate corrective action. Even under the Nagpur Agreement of 1953, the Vidarbha, Marathwada and the rest of Maharashtra are to be retained as units for all purposes of administration and development. Publication of statistics is both an administrative and development function. The Committee should, therefore, have suggested that in future along with districtwise statistics in all respects, regional/divisional totals should also be presented in all government publications.

6. Regional representation on the State level Boards, Corporations, Committees, etc.

It has been brought to the notice of the Committee that the backward districts have rarely been getting adequate representation on the state level authorities, boards, corporations, committees, etc. This creates an impression among the people in the backward districts that they do not have equitable opportunity of sharing in government and its various organisations for policy making and implementation. On the other hand, the state level organisations might be suffering from a handicap in as far as they do not have a correct appreciation of the situation existing in the backward districts and, may not be getting feed back for correct remedies. The grievances in this respect are in my opinion justified. It should, therefore, be a positive policy of the government to ensure representation to as large a number of districts as possible and that every district should get some share of management of some authority, body, board or corporation. This would not only help getting people's participation but would also create a feeling of sharing of policy making and implementation in the backward districts. In the process, the awareness of the problems of the backward districts with the state level bodies would improve and help orientate state policies more in tune with the conditions prevailing there. The Committee should, therefore, have urged upon the government to ensure equitable representation to backward districts on all state level authorities, boards, corporations, committees, etc. This should apply both to the memberships and chairmanships of all those authorities.

7. State level organisation for development of backward districts

The Committee has suggested programmes of correction of backlogs in various sectors of development. Each department would follow up the suggestions, take administrative steps, make budgetary provisions and implement the programme. Several other steps have been suggested where administrative action even to identify disparities remains to be taken by the State Government because the Committee could not go into all the sectors of development, within the short time available to it. Moreover, it is necessary that an overall view of development of backward districts is taken at the state level and the entire programme of removal of disparities between the districts is pursued with a strong commitment. It must receive the highest priority in thinking and planning at all levels. The Committee should, therefore, have suggested constitution of a Cabinet sub-committee for development of backward areas with the Chief Minister as its Chairman. The Cabinet sub-committee should periodically review the progress of implementation and generally direct all actions in that respect. The Cabinet sub-committee should have a senior officer of the status of Additional Chief Secretary as its full-time Secretary, exclusively to administer the programmes of removal of backlogs and disparities between districts and to coordinate activities of various departments and to solve difficulties and problems arising from time to time. The Cabinet sub-committee may be called the Development Authority for backward districts. The Additional Chief Secretary may be called the Commissioner for backward districts and Additional Chief Secretary to the Government. He should be located in General Administration Department and should be given adequate administrative authority over the implementing agencies. The State Legislature should be provided an annual report on progress made in various sectors in this respect.

Appendix E

REPLY

1. We have two minutes of dissent, one by Shri B.A. Kulkarni and the other by Dr. V.V. Borkar, and two supplementary notes, one jointly by Dr. S.A. Deshpande and Shri B.G. Dave and the other by Shri B.A. Kulkarni. In the following, we shall deal with them in that order:

Minute of Dissent by Shri B.A. Kulkarni

2. Shri B.A. Kulkarni agrees broadly with the Committee's approach and findings including the need for a watch-dog authority "to oversee the process of reducing regional disparities in development and to report every year to the State Legislature". The main point of Shri Kulkarni's minute of dissent is our concept of the watch-dog authority. We have said: "In the nature of its functions, it is obvious that such an authority cannot be regional and must not be political." We thought it obvious that a body to oversee the process of reducing regional disparities has to be supra-regional, one which will oversee the process in the same perspective in all the regions considered together. Shri Kulkarni does not see this and thinks that three separate regional development boards, as conceived in the Article 371(2) of the Constitution, can function as watch-dog authorities to oversee a unified process of reducing regional disparities operating in their respective regions each considered independently. In fact, Article 371(2) does not specify the functions of the regional development boards. That they are intended to be purely watch-dog type bodies is Shri Kulkarni's own interpretation and others asking for the establishment of these boards may not agree with this view.

3. Shri Kulkarni agrees with us that the watch-dog authority must not be political. As he points out, we have not been able to spell out the details of the required legislation. But we have suggested that it should be similar in scope and intention to the Maharashtra Lok Ayukta and Up-Lok Ayukta Act of 1971. On that parallel, we have also indicated in some detail the powers and functions of the contemplated watch-dog authority and how it would function. To ensure that it remains non-political, we have suggested inter alia that it should be a single person and not a Committee or a Council because a Committee or a Council, as it must represent several interests, tends to be political. Article 371(2) does not specify the composition of the regional development boards contemplated therein. Nor does Shri Kulkarni elaborate his idea of the development boards, particularly their composition. We do not know therefore how he expects that the regional development boards will be non-political.

4. Shri Kulkarni notes: "The work does not appear to be that simple. It will be putting on trial, the Board Members' faith both in the democratic working and the unity of the State of Maharashtra as well as their sense of responsibility and fair judgement." Further, he says: "Their functions would be exacting and at times might also be mutually conflicting." We entirely agree. As much as we can see, the regional development boards will be essentially political bodies; their performance will be judged by their advocacy of regional interests, which will unavoidably be partial, with exaggerated grievances and overstated claims. Their annual reports will tend to be mutually acrimonious and they will set the tone for equally acrimonious debate in the State Legislature. One wonders, how the Governor will find the truth except by instituting an independent enquiry every year. We simply do not see how the watch-dog authority can be split up into three separate multi-member bodies.

5. Another point of Shri Kulkarni's dissent is that in his opinion "no watch-dog body in the present political system can be useful or effective unless the Governor exercises his special responsibility independent of the Council of Ministers". In our view, the effectiveness of the watch-dog authority depends, in the first instance, on "the objectivity and thoroughness with which he makes his annual report". This is the starting point. His report will be discussed in the State Legislature and this will ensure that he in fact strives to make his report objective and thorough; in his subsequent reports, he must take into account and respond to the criticism and comments made in the State Legislature. Finally, the State Government, that is the Council of Ministers, being responsible to the State Legislature, must respond and act on this report taking note of the comments and criticism made in the State Legislature. This is the normal democratic process and we see no reason to depart from it.

6. Moreover, as Shri Kulkarni points out, the special responsibility of the Governor as envisaged in Article 371(2) was in respect of (i) equitable allocation of funds for development expenditure, (ii) equitable arrangement for providing adequate facilities for technical education and vocational training, and (iii) adequate opportunities for employment in services under the control of the State Government. Our report goes much beyond the provisions of Article 371(2). We have given concrete meaning to the terms "equitable" and "adequate" and we have recommended a specific process which will continue and which can be evaluated in its own terms every year. Our approach to the problem and the specific measures we have suggested go far beyond anything suggested so far and anything conceived in 1957 when Article 371(2) was incorporated into the Constitution. These measures, which pervade the entire system in great detail, cannot be introduced and sustained over a long period without large public support inside and outside the State Legislature. The watch-dog mechanism we have suggested is a mechanism to gradually build up such a public support for what we believe is a different strategy of development. To make it a special responsibility of the

Governor is a retrograde step; it will alienate public sympathy and prevent any public support being built up.

7. Shri Kulkarni says: "A mechanism set up under the State's political authority may not moreover meet the apprehensions of the people in Vidarbha, Marathwada and many lagging districts of Western Maharashtra about their continuing to be neglected in future." Shri Kulkarni has noted: "With whatever little probing the Fact Finding Committee has been able to do, it has brought forth substantial disparities in development in several sectors." We should add that the little probing has also confirmed large disparities between districts/talukas within Western Maharashtra, within Vidarbha and within Marathwada, voiced at almost every meeting during our tour of the districts. If a watch-dog authority established under a statute of the State Government will not meet the apprehensions of the people of Vidarbha and Marathwada, separate development boards for Vidarbha, Marathwada, and the Rest of Maharashtra, even if established under the provisions of Article 371(2), will equally not meet the apprehensions of the people in the lagging districts/talukas in each of these regions.

8. Consistent with the approach the Committee has adopted to the problem of regional disparities, the watch-dog authority cannot be regional and must not be political. To ensure its independence from the Government of the day, it must be statutory. But it is the essence of the matter that it is established by a statute of the State Government; that alone will ensure that the State Government will remain answerable to the annual report of the watch-dog authority.

Minute of Dissent by Dr. V.V. Borkar:

9. The minute of dissent by Dr. V.V. Borkar falls in a different category. In his opinion, the Committee has done "no more than paying token attention to the development needs of the lagging regions". "Only a weak and halting strategy is churned out by the present report for reducing inequalities in the commercial sector". "If for any reason it is not possible to collect all the statistical data, one will have to fall back on surrogates. But the Committee has wilfully avoided all this." "The problem has been side-tracked by making distance from Bombay and not solely industrial backwardness the criterion for differential treatment." "It has deliberately chosen to ignore privately generated infrastructure facilities in inter-district comparisons." "The Committee has made no serious attempt to assess the backlog in the commercial sector." "One reason why the Committee excludes private facilities in infrastructure is ostensibly its aversion to expanding Government activity involved in compensatory public action in lagging districts." "... the Committee has (e.g. in the case of irrigation and industry) gone out of its way in adopting the taluka as the unit. The Committee has also recommended that their entire exercise should be revised making the taluka the centrepiece of the analysis." "..... the Committee has often deviated from its term of reference. ...

Every time this has conferred relative advantage on developed districts." We cannot quarrel about his choice of language and style. But, unfortunately, this has made Dr. Borkar prone to distortion and inaccuracy.

10. In para 3.29, we have explained: "While assessing disparities in these (social service) sectors, we shall not take into account the services provided by voluntary effort. We shall enquire whether the services provided at public cost are distributed equitably This will ensure that, while reducing the disparities in the provision of these services, voluntary effort is not discouraged." We reiterate this position. But Dr. Borkar seems to believe that we have not taken into account the irrigation on river-lifts in Sangli and Kolhapur districts. This is not correct. This irrigation has been fully taken into account. We have not taken into account irrigation by wells in all districts because it is done at private cost. In technical training and health services, Dr. Borkar seems to believe that we have not taken into account all private institutions. Again, this is not correct. We have taken into account private institutions receiving grants-in-aid. We have kept out only wholly unaided institutions.

11. Our use of taluka as unit in our analysis of disparities in irrigation and industry is fully explained in paras 7.13 and 13.58 of the respective chapters. Dr. Borkar, by using "e.g." in this context, implies that these are two examples, and that we have used talukas as the unit in many more cases. This is not true. On the general point regarding the unit of analysis, we have explained our position in paras 3.2 to 3.6. Following from there, we have recommended that the following sectors/etc. should be immediately examined at the taluka level: (i) Other Roads, (ii) Irrigation, (iii) Rural Electrification, (iv) Energising of agricultural pump-sets, (v) Primary Education, and (vi) Adult Education. We reiterate our position and recommendation. But Dr. Borkar says: "The Committee has also recommended that their entire exercise should be revised making the taluka the centre piece of analysis." These are clear distortions.

12. For the purpose of their Package Scheme of Incentives, SICOM classifies the talukas on the basis of industrial backwardness. We have suggested that the talukas should be classified "on a combined consideration of (i) industrial backwardness and (ii) distance from the developed region of Bombay-Pune". This is a distinct improvement over the present scheme, and in paras 13.55 to 13.58 we have explained the reasons why. Evidently, they are lost on Dr. Borkar. In his comment, namely, that "the problem has been side-tracked by making distance from Bombay and not solely industrial backwardness the criterion for differential treatment" Dr. Borkar is at best inexact or ambiguous; he is likely to be misread to mean that we have made the distance from Bombay the sole criterion. Moreover, one wonders which problem we have side-tracked by suggesting that the talukas should be classified on a combined consideration of industrial backwardness and distance from Bombay-Pune. Dr.

Borkar's comment together with the preceding sentence reads as follows: "Leave alone private investment, even the outlay of the Government and other public institutions on agricultural and industrial development districtwise has not been compiled. The problem has been side-tracked by making distance from Bombay etc." We confess we do not see the connection. As for the outlay of the Government and other public institutions on agricultural and industrial development, particularly the latter, we have presented voluminous data collected and compiled districtwise with great effort.

13. Dr. Borkar says that "a time-bound programme is absent" in our report. In para 3.37, we have explained why our approach to the problem requires not a time-bound programme for removing a given backlog but a continuing process of reducing disparities. Evidently, it is all lost on Dr. Borkar.

14. Dr. Borkar's principal criticism seems to be that what he calls "the commercial sector", comprising mainly agriculture and industry, has not received proper attention from the Committee and that the Government's promotional and compensatory activity has not received the stress it deserves. We suppose that in our chapters on Industry, Agriculture, and Co-operation, we have considered in some detail the Government's role in these fields. Dr. Borkar's own recommendations are a series of platitudes such as: "The public servants have to give up their traditional ways and go out to help these budding entrepreneurs who should be regarded as social benefactors and assume the role of 'activists' with the help of the local advisory groups, if necessary." "Agricultural and industrial transformation in backward districts should be thought of together as they are closely inter-linked." "Far-reaching changes have also to be introduced in the educational system which has deteriorated to a ritualistic exercise, unrelated to the socio-economic needs." "For best results, the policy for eliminating inter-district disparities has to be integrated with a suitable growth strategy."

15. Dr. Borkar pronounces: "The compensatory fiscal policy recommended by J.M. Keynes is very relevant in this context. Converting his counter-cyclical policy into counter-underdevelopment policy involves two modifications: Firstly, public investment must be confined to highly productive projects. Secondly, inter-temporal context should be substituted by inter-regional. This means that after encouraging private enterprise by all possible means in backward districts, the underdevelopment gaps should be bridged by appropriate public or quasi-public investment in agriculture and industry (viz. commercial sector) there." In view of Dr. Borkar's own stipulation that "public investment must be confined to highly productive projects" his advice to make up the shortfall in private investment in agriculture and industry in backward districts by public or quasi-public investment appears somewhat unrealistic. As for converting the counter-cyclical policy of J.M. Keynes into counter-underdevelopment policy and substitute its inter-temporal

context by inter-regional context, informed opinion among us thinks that it does not make much sense even in theory.

Supplementary Note by Dr. S.A. Deshpande and Shri B.G. Dave:

16. In their supplementary note, Dr. S.A. Deshpande and Shri B.G. Dave say: "..... notwithstanding the fact that the measures being suggested by this Committee are much more comprehensive, more pervasive and just and fair for each and every district of Maharashtra, we consider it prudent to make a specific recommendation that provisions of Article 371(2) should be invoked." We are grateful to Dr. Deshpande and Shri Dave for the courtesy and generosity of their expression. The reasons why they think it prudent to recommend invoking provisions of Article 371(2) are, in their words: "Today, Article 371(2) has become a political issue with the regions of Vidarbha and Marathwada and wisdom lies in gracefully accepting the demand." We have much sympathy for this candid position. But, we are sorry, we cannot agree. Regional development boards under Article 371(2) have no place in our scheme of reducing the district disparities.

17. One may quite independently examine the need and utility of regional development boards as planning and development bodies intermediate between the State Government and the District Planning and Development Councils. We understand that the Economic Advisory Council of the Prime Minister has made a proposal to this effect. The proposal merits careful consideration. But, as much we can see, these intermediate bodies will be "divisional" and not "regional" and they will be established, if found useful, by the State Government and not under Article 371(2) of the Constitution.

Supplementary Note by Shri B.A. Kulkarni:

18. In his supplementary note, Shri B.A. Kulkarni has made seven specific supplementary recommendations. For want of time, we could not examine their relevance and merit. We suggest that these be examined on merits.

V.M. Dandekar

Neelakantha Rath

P.D. Kasbekar

V.N. Rao

M.A. Chitale

R.T. Atre

S.M. Vidwans

B.N. Bhagwat

N. Raghunathan

R.C. Sinha

P.S. Manchekar