

WORKING GROUP  
ON  
POPULATION POLICY  
REPORT



GOVERNMENT OF INDIA  
PLANNING - COMMISSION  
MAY 1980

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REPORT

Government of India  
Planning Commission

MAY, 1980

Corrigendum to the Working Group  
on Population Policy Report - May, 1980

Page No.	Para No.	Line no. from top of page.	Delete	Substitute / Add
5	7	4th	'the expectation of the'	- a desirable
6	8	3rd	-	- after the words 'level of' <u>add</u> 'awareness, motivation and'
6.	9	1st	'Population'	- 'Fertility Control'
7	12	3rd		'after the words 'level of' <u>add</u> 'awareness and'
-do-	-do-	5th	'national community'	- 'the people'
8	15	6th	-	- 'after the words 'planned developm <u>add</u> 'became the first nation in th world to adopt'
9	16	5th	'intervention'	- 'action'
14	27	4th	-	- 'after the words 'coercion' <u>add</u> 'or undue allurements' 'after the words 'involving the people' <u>add</u> 'in the various aspec'
20	37	3rd	'expected'	- 'desired'
21	38	6th	-	- after the words 'acceptable' <u>add</u> 'already'
-do-	-do-	-do-	'political'	- 'shades of'
21	39	10th	'2001'	- '1996'
23	41	3rd	'so as to prepare them eventually for terminal methods'	- 'give (full-stop) after the word 'group'.
25	48	1st		- give star mark at classification <u>add</u> the foot note: * Based on the average of % of the couple prote in 1976-77, 1977-78 and 1978-79.
28	50(vi)	8th	'the distribu- tion'	-
37	67	10th		after the words 'group motivati <u>add</u> 'and we are happy to know' emphasis has already increased the Govt. programme'.
37	68	1st	'world'	'word'
37	68	2nd	-	- 'after the words' should be' <u>ad</u> 'further'
38	68	4th		- after the words 'The stress shc <u>add</u> continue to'
39	71	4th	'disentangle'	- 'disentangle'
40	74	3rd	'expectacancy'	- 'expectancy'
44	80	8th	-	- after the words '10 percent' 'in real terms' - after the words 'policy functi 'for linkages'

48	90	1.1th		after the words '10 percent' <u>add</u> ' in real terms'
-do-		-		after the words 'policy function' <u>add</u> ' for linkages'
49	92	4th	'existing'	-
49	92	6th	'continue'	- 'be reviewed'
49	92	9th & 10th	'political integration between popu- latio policy'	-
51	97	6th	-	after the words 'block level' <u>add</u> 'associating closely the people's representatives'
52	99	8th	-	after the para <u>add</u> 'We note that steps in this direction have already been initiated by the M/Health and Family Welfare.
53	101	5th	'system even if it is present on paper'	after the words 'always' <u>add</u> 'easily'
59	113	last	'external'	'institutions or'
60	114	last	-	after the para <u>add</u> 'We recognise that effor in this direction have already started & would urge very speedy action'.
61	116	2nd & last.	'both the family welfare prog- ramme and the'	Delete full stop. In cont. to the para <u>add</u> 'as in the case of family welfare programme
63	120	3rd	-	after the words 'take into account' <u>add</u> 'as at present'
-do-	-do=		'work'	'meet'
66	125	5th	'responsible'	'responsive'
67	126	last	Delete full stop	after para <u>add</u> 'as is being attempted' under the Area Projects referred to at para-113.
68	129	4th	-	after the words 'in family planning' <u>add</u> 'to be administered by the Dept. of Family Welfare'.
-do-	-do-	last	'Special attention to Group A States may be paid through this fund.	-
69	130	21st	'high maturity value on postal life insurance policy'.	after the words 'such as' <u>add</u> 'one addi- tional increment not absorbable in future increase in pay'
69	130	last	'Plantation'	'plantation' after the para <u>add</u> 'It is understood that the M Health and Family Welfare have already moved in this direction'
71	134	last	'widely'	after the words 'be used' <u>add</u> 'in addition to Lippes Loop'
72	134	top of page	-	after the words 'Programme' <u>add</u> 'It is observed that Lippes Loop still is a popular IUD'.

73	135	7th	'in contact with the WHO'	after the words 'ICMR is' <u>add</u> 'ready'
74	136	4th	-	after the words 'may' <u>add</u> 'etc.,'
74	136	7th	'These'	'The'
76	140(a)	2nd	'compatable'	'compitable'
76	140(e)	1st	'the'	-
83	147	last	'usefully'	'woefully'
89	157	5th	'fulfillment'	'fulfilment'
89	158	5th	'disaggreg te'	'disaggregated'

# REPORT OF THE WORKING GROUP ON POPULATION POLICY

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REPORT OF THE WORKING GROUP ON POPULATION POLICY

1. The Working Group on Population Policy was appointed by the Planning Commission on October 20, 1978 with the following composition:

- |  |          |
|--|----------|
| 1. Dr. V.A. Pai Panandiker,<br>Director,<br>Centre for Policy Research,<br>New Delhi.  | Chairman |
| 2. Prof. P.B. Desai,<br>Institute of Economic Growth,<br>New Delhi.  | Member   |
| 3. Prof. Ashish Bose,<br>Institute of Economic Growth,<br>New Delhi.   | Member   |
| 4. Prof. D. Banerjee,<br>Head, Centre for Social Medicine<br>and Community Health,<br>Jawaharlal Nehru University,<br>New Delhi.                             | Member   |
| 5. Dr. Kumudini Dandekar,<br>Gokhale Institute of Politics<br>and Economics, Pune - 411 004.   | Member   |
| 6. Dr. K. Srinivasan,<br>Director, International<br>Institute of Population Studies,<br>Bombay.  | Member   |
| 7. Director,<br>National Institute of Health<br>& Family Welfare,<br>New Delhi.  | Member   |
| 8. Dr. V. Ramalingaswami,<br>Director & Professor of<br>Pathology,<br>All India Institute of Medical<br>Sciences, New Delhi.<br>(Now Director General, ICMR) | Member   |

- |   |                         |
|---|-------------------------|
| 9. Smt. Avabai B. Wadia,<br>President, Family Planning<br>Association of India,<br>Bombay.                          | Member                  |
| 10. Dr. J.P.S. Uberoi,<br>Department of Sociology,<br>University of Delhi,<br>Delhi.                                | Member                  |
| 11. Shri P. Murari,<br>Commissioner and Secretary,<br>Department of Health,<br>Government of Tamil Nadu,<br>Madras. | Member                  |
| 12. Representative of the Ministry<br>of Education & Social Welfare.  | Member                  |
| 13. Registrar General of India,<br>New Delhi.   | Member                  |
| 14. Additional Secretary-cum-<br>Commissioner (Family Welfare),<br>Ministry of Health & Family<br>Welfare.          | Member                  |
| 15. Shri M.V.S. Rao,<br>Adviser, Labour & Employment<br>Division,<br>Planning Commission.                           | Member                  |
| 16. Adviser, Perspective Planning,<br>Planning Commission.  | Member                  |
| 17. Consultant (Health & Family<br>Welfare), Planning Commission.   | Member                  |
| 18. Director (Evaluation),<br>Department of Family Welfare.   | Member-cum-<br>Convenor |

2. The terms of reference of the Working Group were as follows:

- (i) to consider the demographic situation, achievements and perspectives and suggest a fertility control programme, along with



feasible levels of achievements, for the current and subsequent plan period including realistic demographic goals, highlighting the priorities, with particular regard to the factors which could lower the fertility rate;

(ii) to take an integrated look at the social, economic and environmental variables, related to fertility control and family welfare, and suggest appropriate measures and related developmental programmes;

(iii) to suggest how to integrate various schemes designed under the Revised Minimum Needs Programme which are run by different Ministries and State Governments so that the fertility control programme can be made more popular and effective by creating necessary linkages.

3. The Working Group submitted an Interim Report on March 12, 1979 covering essentially the first term of reference dealing with demographic situation, achievements and perspectives and fertility control programme up to the year 2000 A.D. The Interim Report has now been integrated with this final report.

4. Basically we were asked to suggest first of all the fertility control programme both short and long term and secondly to take an integrated look at social, economic and environmental variables including the

minimum needs programme, in terms of their relationship to fertility control and family welfare. Obviously the two sets of objectives are highly inter-related. Under present national conditions it is hardly possible to separate the issues of fertility control from the broad spectrum socio-economic and developmental factors. We interpreted our task essentially in trying to analyse the national and international experience in terms of the determinants of fertility control and sought to suggest a programme of action which should be within the reach and competence of the country. We are quite clear in our mind that fertility or population control is an issue much bigger than the official programme of family welfare and therefore it is to be viewed in terms of the nations broader perspective on development as a whole.

#### Approach

5. In our view, population policy and the general development strategy are two sides of the same coin. Uncontrolled growth of population in the Indian Context has profound implications for the development plans and the concomitant problems of food supply, nutrition, employment and above all for the essential dimensions of quality of life which we wish to ensure to the people. This is precisely what the overall national development policy is all about. It is from that

point of view that we have examined the relationship between the population and development policy and have tried to suggest an active strategy which brings about a synergistic relationship between population and development programmes.

6. The implications of not incorporating population policy in the overall development programme are indeed grave because in a limited resource situation which the country is faced with, the population factor would disturb the national social, economic and political life. It would also prevent the nation from ensuring the level of community's and individual's dignity which we wish to establish in as quick a time as possible.

7. We urge the nation to embark upon the population policy as an integral part of its overall development programme. All development activity which ensures fulfilment of the expectation of the quality of life of the people including a comprehensive and distributive health policy which in turn brings down fertility and therefore help population control, should be emphasised over the next 20 years between 1980 and the year 2000, but much more so during the present decade of the eighties.

#### Demand and Supply Issues

8. We have broadly viewed the population problem both in terms of the problems of creating the necessary

level of demand as well as in terms of maintaining the supply of services to the people, including the organisational issues which affect both the demand and supply. We have no illusions that these are both important policy issues which require discussion, debate and agreement at the highest level in the national political, economic and social life.

9. Population issues deal with a very sensitive area of human life. They bring into conflict questions of what is considered proper and what is not proper for state action and what is perceived as national interest and individual interest. In that sense, only when individual interest and the national interest are synchronised, that the problem gets somewhat more amenable to solution. This is in our view the crux of both the demand and supply problems. It should be our endeavour to bring about voluntary acceptance of the fact that a small family of the size we have recommended of two children by and large will meet both the needs of the individual couples as well as the society. Until we bring about this conviction to all sections of the community, the prospects of achieving the demographic goals are remote.

10. Our various recommendations contained in this report are largely intended to facilitate such a confluence of interest and achievement of social

equilibrium through proper integration of demand and supply factors.

11. As we have emphasised later in our Report, the supply factors which deal basically with issues of proper contraceptive technology and services and their delivery to each couple desirous of using these services, are a very important dimension of the problem.

12. In so far as generation of necessary demands is concerned, which basically means creating the level of motivation for small family norms, the problem is obviously far too complex. While certain sections of national community however small have already adopted the two-child family norm, large sections of national community have not only not been adequately motivated, but also do not fully subscribe to values which influence motivation in this regard.

13. We have looked closely at the domestic pattern and experience where there seems to have been an important change in the motivational attitude of the eligible couples we have in mind. What we find essentially is that the relationship between motivation and causal factors is not uniform. State intervention of creating awareness, though important, is not adequate unless it is socially and individually accepted. Even so, we find good relationships between a series

of socio-economic programmes and fertility behaviour. It is these programmes with which we feel that official health and family welfare programme should be better integrated and better linked. The most important set of these programmes and linkages are detailed later.

14. In terms of the demographic goals or the fertility control programme, our terms of reference enjoined on us feasible levels of achievements, both for the current and subsequent plan period. We deal with these first.

#### DEMOGRAPHIC GOALS

15. Within the limitations of available data, the Expert Committee on Population Projection under the Chairmanship of the Registrar General, estimated our population as of March 1978 to be about 634 million. Since 1951-52, when we launched on a programme of planned development and adopted family planning as an official policy, the population has increased by about 75 per cent. The decennial growth rate, which was of the order of 13.3 per cent during the forties, increased to 21.6 per cent during the fifties and 24.8 per cent during the sixties. While the death rate dropped substantially from 27.4 per thousand in the forties to about 18.9 in the sixties, the birth rate has increased slightly, from 39.9 in the forties

to 41.1 in the sixties. The expectation of life at birth improved from about 32 years during the forties to about 45 years during the sixties.

16. The family planning programme, which started in the early fifties as a modest attempt to provide advice on family planning to those who sought such advice, attracted focal attention during the sixties and became a major programme of state intervention. The Fourth Five Year Plan adopted as its demographic objective bringing down the birth rate from an estimated 38 to about 25 by the end of the Fifth Plan. Despite the various strategies followed since the early seventies, the Fifth Plan ended with a birth rate of 33, which meant only a reduction of 6 points since the beginning of the Fourth Plan, i.e. over a period of nine years. The overall drop in the birth rate since the beginning of the family planning programme is estimated to be approximately 8 points. With an estimated birth rate of 33.2 and a death rate of 14.1 (as of 1978, independently estimated by the Registrar General on the basis of the Sample Registration System), the population is estimated to be currently growing at about 1.91 per cent per annum as against 2.24 per cent during the sixties.

17. The current population projection made by an Expert Committee projected the growth of population to 697 million by 1983, 761 million by 1988, and 799 million by 1991. This is based on the assumption that the birth rate will come down to 29.5 in 1981-86 and 27.0 in 1986-91, and that the death rate will come down to 11.6 in 1981-86 and 10.4 in 1986-91.

18. An important feature of the projected population is the sharp increase in the age-group 15-59 from about 54 per cent in 1978 to about 59 per cent by 1991. This structural change has a great significance not only from the viewpoint of providing employment opportunities for the working population but also from the viewpoint of population control, as the reproductive age group is expected to increase faster than the population in general. It implies that even if the age-specific fertility rates remain constant, the birth rate would increase just because of the structural change, and the death rate would diminish, thus pushing up the natural growth rate.

19. On a rough calculation, it is estimated that if the population were to continue at the present rate, it would double itself in 37 years and reach the level of 1270 million by 2015, and will be four times as much as in 1941 when it was only 318 million, thus indicating a four-fold increase in 74 years. With its concomitant



effects on food, housing, employment and levels of living in general, the demographic situation thus calls for appropriate planned action.

20. The Working Group strongly emphasizes that our population policy should reflect the concern for individual's as well as community's dignity, aspirations, development and wellbeing. This overall objective gives rise to a number of sub-objectives. In particular, the critical areas are a substantial improvement in the life expectancy accompanied by a drastic reduction in infant and child mortality rates, an adequate provision of protective, preventive, promotive and rehabilitative health care as well as curative medical services, and provision of basic minimum needs to the population, especially to the weaker sections in terms of food, employment, housing and social services.

21. A realisation of these objectives will be considerably facilitated by a commensurate reduction in the fertility levels and growth rate of the population. Some of these developmental programmes interact synergistically with programmes for reduction of fertility. Notable among these, are programmes for improvement in the literacy of women, employment of women on productive occupation, and a general improvement in their economic, health and social status.

22. Thus, in order to have an effective population policy, it is not only necessary to lay down goals on fertility and mortality rates to be realised in defined time periods and concentrate on health and family planning programmes, but also to lay down goals on certain specific social and economic development programmes which have linkages with the population parameters. Changes in these social and economic conditions of the population to levels at which the linkages start operating for reduction in fertility, are substantial taking into consideration the present conditions prevailing in the country.

23. For example, in terms of employment of women, the 27th Round of NSS revealed that as against the average unemployment rate of 7.83 per cent, that of females was 9.92 per cent. The corresponding percentages for urban areas were 8.35 and 12.58. Also, the estimated population below the poverty line was 40.71 per cent in urban areas and 47.85 per cent in rural areas in 1977-78. According to the 1971 Census, in over one-third of the districts in rural India, less than 10 per cent of the female population was reported literate. The 28th Round of NSS reveals that the per capita expenditure on health services of the rural population were insignificant in households with an income level of Rs. 55 and below per month. The

available data on mortality of children reveals that 40 per cent of the deaths among children below five years of age are attributable to gastro-enteric and respiratory infections.

24. With this background of abject poverty and lack of access of the poor sections of the population to basic amenities, the Working Group feels that the success in the objectives of the population policy would be very much linked to the success in the implementation of the revised minimum needs programme, especially health education, rural health, rural water supply, nutrition programme, rural development programme, rural electrification etc. The performance in the field of family planning will depend not only on the activities of the Ministry of Health and Family Welfare, but also on the performance of various other departments of the Government both at the centre and in the States, involved in the implementation of the minimum needs programme.

25. We also feel that health and population education at appropriate levels in the schools would help the population control programme significantly, especially if provided to girls at the secondary and higher secondary levels. Unfortunately, high drop out of girls from the schools especially in the less developed States makes for limited utility of this measure.

Even so we support the general idea and we suggest that necessary assistance be given to the States undertaking such educational programmes.

26. While emphasising the inter-relationship between fertility and broader dimensions of developmental programme, we are not seeking to underplay the role which the family welfare agencies of the Government have to play. The more important problem in this context is creation of the necessary level of demand from the people. This demand will emerge as a result of the socio-economic and political processes and activities than only from what the official family welfare agencies can do.

27. From this point of view, we emphasize that a programme such as family planning which touches a very personal area of individual's life has necessarily to be voluntary. In any case, any kind of coercion in a democratic polity such as ours is unacceptable. Nor do we feel that coercion is capable of sustaining the long-term demographic objectives which we have in mind. Besides, such thought of coercion or measures amounting to coercion are a reflection of a sense of panic about the population problem.

28. We do not share the sense of panic about the population problem. Nor do we support any sense of

complacency about the magnitude of the problem and the urgency of its resolution. We feel that a positive solution to the population problem is intimately tied to the fulfilment of the socio-economic responsibilities towards the deprived sections of our people and thus creating an appropriate climate for the voluntary control of fertility. We, therefore, emphasize the urgency for implementation of the various programmes which make people of India participate and share in the various fruits of development. This, we feel, will bring about the necessary climate for the small family norm which the nation has been advocating for quite some time and especially since the sixties.

29. While we are on the question of demand for various services related to fertility control, the Indian experience has shown that leaving the programme to the governmental apparatus alone has been neither adequate nor effective. The programme will succeed only to the extent that the people accept it as their programme. To use a cliché, the programme has to be a "Peoples' Programme". The strategy of creation of the necessary conditions for making it a people's programme and generating the necessary demand for family welfare services therefore must necessarily be in terms of the programme of involving the people through all possible institutions and avenues. The solution,

however, is complicated by the fact that the institutional framework, both social and political, varies a great deal in different parts of the country and therefore no single strategy of people's involvement can be prescribed. This will have to be worked out in considerable detail by each State after taking into consideration the local formal and non-formal institutions and conditions prevailing in different parts. We have made some suggestions in this regard later.

30. In broad terms, however, we wish to emphasize the increasing involvement and effective participation of the local community, especially the Panchayats and existing voluntary bodies; also of private and non-profit organisations and informal groups working at the grassroots level who have demonstrated their performance. This will go a long way in creating the necessary climate and ultimately the necessary political will.

31. The creation of the political will in terms of the desire, consent and support of the people for such a programme is to our mind a crucial pre-requisite for the success of such a programme. Such a political will needs to be created at all levels of the national political system, but most importantly at the local and village level, at the block level in small and big towns and at such higher agglomerations which involve social and political relationship between people.

32. We urge from that point of view that all the political parties should involve themselves in debating, discussing and agreeing on these issues of population policy not in terms of the demographic goals alone but in the wider perspective of the overall development programme in which every Indian citizen is able to share the fruits of development. A consensus of this kind will go a long way in promoting the programme.

33. We emphasize at the same time the need for the expansion and strengthening of the necessary infrastructure for the health and family welfare services and programmes. It is our feeling that the health programme should be streamlined and its management reoriented to provide effectively the outreach and thus meet the needs of the people for health and welfare services.

34. We have developed below specific recommendations covering the short-term objectives before us. We re-emphasize here that whatever solutions we conceive in this programme can only be of a long-term duration spread over the next two decades or so. There are no dramatic goals and family planning targets that can be set for the immediate future. We feel that such dramatic moves are not only prone to failure but may give another setback to the programme. We agree, however, that the nation should plan for a long-term

programme to move towards a stationary population at the lowest possible level. Suffice it to say at this stage that our national performance in this field will depend entirely upon what we do during the present decade. Our national, political, economic, social and administrative resources should be systematically utilised and galvanised into action over the next ten years or so to fulfil all the requisites which will make our long-term goal attainable.

#### Long-term Demographic Goals

35. As already stated the fertility rates of a population are an integral part of the levels of development of the society and low fertility rates can be sustained only in the context of a certain level of development. There is practically no historic evidence of crude birth rates below 20 per thousand sustained in a population which is economically and socially backward.

36. The Working Group feels that a stage has come in the demographic transition of India where its future fertility goals should be linked to some developmental variables, if these goals have to be realised and sustained. One of the universally agreed goals of development is the reduction in the levels of mortality of the population, particularly infant mortality, leading to a higher expectation of life. Increased span of



life is a universally accepted index of development. Fertility goals can be linked to mortality levels through the index of Net Reproduction Rate (NRR). The Expert Committee on Population Projections have assumed a steady increase in the expectation of life of the population of India from its present levels to about 64 years for both males and females by the year 2001. It appears to us that the nation should have a long term demographic goal specified in terms of the Net Reproduction Rate of unity. This is a level which has to be reached if the population has eventually to attain stationary condition. We feel that this NRR should be achieved in the minimum amount of time, not later than the turn of the century. The NRR of unity or 1, implies that for given set of conditions of mortality and fertility, on an average, a woman will be replaced by just one daughter and two-child family will be the normative pattern in the society by the year 2001.

37. The Group strongly recommends that the nation commit itself to achieving the long-term goal of NRR of unity by the year 1996 on an average, and by the year 2001 for all the States. This would mean that no state in the country could have an NRR of more than 1 by the year 2001. The transition from the present level of NRR which is estimated to be around 1.67 to 1.00 by 2001, that is, from the present family size of about

4.2 children to 2.3 children per couple, will be greatly facilitated if the anticipated reductions in mortality or in other words, the expected increase in the expectation of life are realised. This implies a reduction in the death rate from the present level of 14 to about 9 per 1000 of population. It also implies a reduction of infant mortality rate from the present estimated level of above 120 to below 60 per 1000 live births by the year 2001. These assumptions are largely based on extrapolation of past trends and model life tables. It is important that a concrete programme of health, nutrition and related services of the requisite dimensions be worked out to ensure the realisation of the implicit reduction in mortality, particularly of infants. It is in fact a matter of regret that whereas targets have been set from time to time for reduction in fertility, no such targets are set for reduction in mortality. We strongly recommend that the necessary efforts should be made to bring down the infant mortality which is at present rather high to half its present level by the end of this century.

38. We feel that there is an added advantage of fixing the demographic goals in terms of the NRR. Emphasising demographic goals in terms of only crude birth rates, as was done in earlier plans, does not take into account the qualitative aspects of the population. When the goals are specified both in terms of fertility and mortality,

the quality of life is also taken into account. Further, since NRR of unity implies an average of 2.3 children per married woman for the level of mortality specified for the year 2001 and essentially emphasizes a two-child family as a long-term goal, it provides a sound proposition acceptable to all political opinions in different parts of the country.

39. Our target of NRR of 1 by 1996 for the country as a whole, on an average, will imply a birth rate of 21 by 1996, from 33 in 1978, i.e., a reduction of 12 points in 18 years, which appears to be feasible given the necessary will. From available data, the nation seems to have achieved a reduction of 8 to 9 points in the birth rate in the previous 12 years, from 1966 to 1978, and this achievement should not be lost sight of. Though the pace of reduction in the birth rate anticipated in the future years upto 2001 is almost the same as the decline achieved in the past decade, it should be emphasized that future reductions in fertility call for greater effort than in the past. This is partly based on the observation made by researchers that any future reduction in fertility would imply a considerable shift in the family size norms currently prevalent and also motivating the hard core of the eligible couples for family planning, especially for spacing methods.

It appears that the problems of motivation of couples for a small family norm and generation of demand for family planning would be playing an increasingly greater role in the future years than in the past.

40. Our studies reveal that the percentage of eligible couples to be effectively protected by a modern method of family planning should be around 60, if the stipulated NRR of One by 1996 for the country as a whole has to be realised under the mortality assumptions made by the Registrar General. Assuming that the number of eligible couples by 1996 would be about 140 million, it means that 84 million such couples will have to be under effective contraceptive protection. If we succeed in this programme, the population of the country would be around 900 million by the turn of the century. It would take another fifty years before the population size stabilizes, because of the age structure of our population. According to our estimates the nation's population would stabilize with a small positive growth around 1200 millions by the year 2050 A.D.

41. From the available data and discussions with the various State Governments and others, it seems to us that not all of the desired level of protection can be or expected to be by sterilization. A more reasonable assumption seems to be that increasingly spacing methods

would assume a larger role in family planning and would be directed towards the younger age groups so as to prepare them eventually for terminal methods.

42. We recommend that each State should accelerate the existing level of protection during the next two decades or less to the planned level of 60 per cent of eligible couples. Assuming the present level of the country as a whole to be around 22 per cent this objective would call for a net annual increase of a little over 2 per cent of the couples to be protected by family planning so that 60 per cent of the eligible couples would be protected by the year 1996.

43. The large differentials in the socio-economic and demographic conditions and family planning performance among the various States in the country suggest that the strategies for the realization of the demographic goals should be suitably modified and made relevant to each State. For this purpose we suggest that the States be grouped into three broad categories on the basis of average proportion of eligible couples effectively protected by contraception during the last three years: Group A comprising the States with effective protection level of less than 15 per cent, Group B comprising the States with protection levels between 15-25 per cent; and Group C comprising the States over 25 per cent protection.

44. We recommend that Group C States be required to develop a programme to achieve the NRR of One by 1991, Group B by 1996, and Group A by the year 2001. The percentage protection to be achieved by each State has to be increased from its present level to 60 per cent by the year appropriate to the Group to which it belongs.

45. The Working Group recognises that there are many paths leading to NRR of 1 by 1996 or 2001 and strongly recommends that each State be assisted by the Government of India in choosing its appropriate path. In this context each State should work out in consultation with Government of India detailed annual operational programme which politically, socially and administratively would be most suitable to it. We suggest later alternatives for the States which we have worked out.

46. Towards achievement of these objectives, we reiterate that the entire programme of developing the demand as well as building the supply side in terms of the infrastructure and the services should be completed over a period of about ten years between 1980-90.

47. The Working Group realises that its suggestions on enhancement of emphasis on family planning, medical and related social programmes, particularly in the States in which progress has been slow, may imply enhancement of outlays. Adequate increase in resource

mobilisation and consideration of trade offs of these with other developmental programmes will need to be considered.

48. On the basis of our classification, the following groupings emerge:

<u>Group A</u>	(% of couples effectively protected by contraceptives - less than 15)	Bihar, Jammu & Kashmir, Rajasthan, and Uttar Pradesh
<u>Group B</u>	(% of couples effectively protected by contraceptives between 15-25)	Assam, Karnataka, Madhya Pradesh, Orissa, and West Bengal.
<u>Group C</u>	(% of couples effectively protected by contraceptives - more than 25)	Andhra Pradesh, Himachal Pradesh, Kerala, Gujarat, Haryana, Maharashtra, Punjab, and Tamil Nadu.

We have recommended above that Group A States should achieve NRR-1 by the year 2001-2002, Group B States by 1996-97, and Group C States by 1991-92.

49. At the instance of the Working Group, the International Institute for Population Studies (IIPS), Bombay, studied the assumptions and methodology to be used in developing alternative sets of family planning targets for the country as a whole and for each of major states in India in order to reach NRR of One by the year 2001-2002. It was decided that the population projection model developed earlier at IIPS which takes into

account explicitly the changes in nuptiality pattern and family planning acceptance be suitably modified, in order to estimate future family planning targets to achieve a given trend of NRR values from 1981-82 to 2001-2002.

50. The various assumptions and data inputs used in this exercise on estimation of family planning targets are described below:

- (i) Age-sex marital status distribution of the population in 1951, 1961 and 1971, as smoothened by the Census Actuary for each of the seventeen major states in India and the country as a whole was adopted. It is also assumed that the infant mortality rate for each of the major States will be reduced by half by the year 1991, 1996 or 2001 from the value in 1979-80 according to the group to which the state belongs.
- (ii) The trends in the expectation of life at birth from 1961 onwards upto 1991, for males and females separately, for each state were assumed to be at the levels recommended by the Expert Committee on Population Projection appointed by the Registrar General and findings published in 1979. These values were extrapolated upto the year 2001-2002 under the same assumption made for each state by the Expert Committee. The survivorship ratios corresponding to every level of expectation of life at birth were adopted



from the appropriate Model Life Tables. The survivorship ratios for single year ages were calculated from ratios available for 5 and 10 years age groups, using the interpolation method developed at IIPS.

(iii) With regard to nuptiality changes, for each state, it was assumed that the proportions of females married in each age, as estimated from 1971 census figures, will change linearly to the 1971 pattern of proportions married among women in Kerala, by the year 1991, 1996 or 2001 according to the group to which the state belongs: Group C by 1991-92, Group B by 1996-97 and Group A by 2001-2002. For Kerala, it was assumed that, in terms of proportions married in each age, it will linearly change to the marital pattern of Sri Lanka by 1991-92. For India as a whole, it was assumed that Kerala pattern will be realized by 1996-97.

(iv) With regard to age specific marital fertility rates in the absence of family planning it was assumed that there were two distinct age patterns: the first that was similar to the U.P. pattern characteristic of northern states, and the second similar to the pattern in Andhra Pradesh for the Southern states. The patterns were obtained from the fertility survey conducted by the Registrar-General, India, in 1972. Though the age patterns of fertility were assumed to be the same for all the northern and southern states, the levels were assumed

to be different for each state. For each state, the U.P. or Andhra Pradesh rates were increased by different percentage points and the female population of 1951 was projected to 1961 using these fertility values and official mortality values and the fertility rates were adjusted so that the projected female population of 1961 agrees quite closely with the census population of females in 1961 in terms of the proportion in the age group 0-9 to total females. The logic behind this assumption is that potential fertility levels prevailed in all the states during the decade 1951-61.

- (v) The actual number of acceptors of family planning methods, every year, since the inception of the programme upto March 1979, by state and by method, was taken into account. For the year 1979-80, the likely performance levels under different methods was considered.
- (vi) With regard to future (from 1981-82) pattern of acceptance of various family planning methods three strategies were assumed: High priority sterilisation strategy (HPS), Medium priority sterilisation strategy (MPS), and Low priority sterilisation strategy (LPS). In the high priority sterilisation strategy it was assumed that the distribution of all new acceptors of family planning methods will be distributed among the three methods, sterilisation, IUD and CC Users in the ratio of 50:20:30 respectively, in Medium priority sterilisation strategy in the ratios 33:33:33 and

in Low priority sterilisation strategy as 20:40:40. It may be observed that under all these strategies sterilisation acceptors would not exceed the acceptors of spacing methods - a point emphasised in the Interim Report.

- (vii) The present level of NRR was first estimated and the desired future trend for each of the 17 states were specified by two different paths. The first path is a linear one wherein the NRR declines by a constant value from the existing level to the level of One by 1991-92, 1996-97 or 2001-02, according to the group to which the state belongs; the second path is a curvilinear one where-in the actual rate of decline in NRR is held constant (Geometric path).
- (viii) It was assumed that there was no substantial volume of interstate migration during the decades 1980 to 2001, though such an assumption is unrealistic. The findings of the present exercise will also hold good, even in the presence of migration, when such migration is of a nature wherein the age-distribution of the migrants is the same as the population of the state of origin and the age-distribution of the family planning acceptors is not affected by such a migration. In order to circumvent the problem of interstate migration, the targets estimated for the different family planning methods were converted into rates per 1000 population per year, so that we can estimate

the actual target for any given state in case the population size, net of migration, is known.

51. As described above, for each of the 17 major states in India and the country as a whole, six alternative sets of family planning targets are developed for every year from 1981-82 to 2001-02, taking into consideration three alternatives with regard to method-mix and two alternatives with regard to the-path-of NRR decline. A set of 108 tables provide the results obtained by the application of the methodology. Each table provides for a particular NRR path and sterilisation methodology, year by year from 1981-82 to 2001-02, population size, crude birth rate, crude death rate, infant mortality rate, NRR, family planning acceptors targets needed to realise the NRR (separately sterilisations, IUDs and CC users) and acceptance rates per 1000 population and percentage of couples protected. Extracts from these tables for 1981-82, 1985-86, 1990-91, 1995-96 and 2000-01 are given in Annexure.

52. The number of acceptors required in a year for a state would depend on:

- (a) the amount of reduction in NRR that is to be achieved,
- (b) the level of potential fertility existing in the state,

- (c) the number of married couples by age who are not protected by family planning,
- (d) the number of married couples by age who have been protected by different methods of family planning.

In order to maintain the percentage of couples protected at the same level or to increase it further for a state in which its level is already high, the number of acceptors required is expected to be relatively high. This is because of larger attrition of earlier acceptors due to various reasons which depend mainly on the drop out rates of a particular method of family planning. For example, the attrition rate will be much higher if the prior acceptors are mainly the users of conventional contraceptive method. Thus the target number of acceptors in a year would depend largely on the pattern and level of family planning acceptance that prevailed in the previous years in a state.

53. The target number of acceptors in the initial year varies between 10 to 20 per 1000 population and it increases gradually over the future years. The linear and curvilinear path of NRR decline does not seem to result in any appreciable change in the targets. The targets in the initial few years is generally higher in the curvilinear path. However, towards the later years, in a curvilinear path, relatively less

targets would be obtained, and the population size in this case would be smaller than in the case of linear path. The curvilinear path, therefore, seems to be more appropriate for setting the targets.

54. Each state can have its own choice in deciding the pattern of acceptance of different family planning methods. This will generally depend on the past experience and the infrastructural facility available for the state. Once a particular strategy (HPS, MPS or LPS) is decided, the state should follow it till the end of the projection period.

55. Projection of population corresponding to a given NRR path presumes that mortality should also decline in a desired manner. This necessitates that sufficient care should be taken to improve the health and nutritional aspects of the programme at the state level so that the mortality path (in particular the reduction in infant mortality) as stipulated in the NRR decline is realised.

#### Short-term Goals

56. We now come to the short-term goals. We feel that reaching the birth rate of 30 per thousand population which implies the effective protection level of 36 per cent of eligible couples by 1983 may not be feasible from the level of 22.5 per cent in March 1980.

We suggest a more realistic target of effective couple protection of 30 per cent by 1982-83 which means that about 8 additional per cent net of eligible couples to be covered during the next three years. The Group feels that the crude birth rate by 1982-83 is likely to be between 31 and 32. The Group suggests that no revisions in the estimates of population size and distribution for the country and states made by the Expert Committee be undertaken now in the light of the fact that a population census would be taken early in 1981.

57. We, therefore, suggest a differential programme in these three groups of states with greater emphasis on the services in Group C States, to lesser extent in Group B States, and greater educational effort, improvement of infrastructural facilities and emphasis on spacing methods such as condoms, IUDs and oral pills in Group A States. We wish to emphasize that non-permanent methods are usually pathways to permanent methods and that non-permanent methods are more important for the new couples entering the reproductive age. We also recognise the importance of raising the age of marriage of girls which has a two-pronged effect on fertility; first, it cuts down the duration of effective reproductive span of the couple at a time when fecundity is high; and secondly, since the wife is likely to be more mature and exposed to modern ideas, possibilities of the couple using contraceptives, later in life,

will be higher. If increased age at marriage is associated with increased years of schooling for the girls, the impact on fertility can be dramatic.

58. We strongly feel that the recently enacted law on minimum age of marriage has come in good time, especially when the family planning programme is at a low ebb and should be implemented with massive educational programmes and special literacy programmes for girls. Such a scheme can pave the way for creating a small family norm and when the norm is deeply embedded in the minds of potential mothers, fertility regulations will become a people's programme.

59. Also for the achievement of these performance goals especially those based on non-terminal methods, it is obvious to us that the emphasis has to gradually move away from high level of medical skills to paramedical, non-medical personnel and the community itself. This shift in family planning delivery system is crucial to be able to take the services to people who are now planned to be covered by the programme. In particular, we need to depend much more on the ANMs, the Dais and the village level community health volunteers etc., for this purpose. We should, however, keep in mind that the physicians' positive attitude to the programme is essential for success as he is the leader of the health services and has an important place in



the community. The medical personnel of the country should, therefore, be fully involved in this programme.

60. In this context the issues relating to medical education especially with respect to orientation for preventive and promotive care by the medical personnel needs urgent attention.

Strategy of the Programme.

61. This brings us to the question of the strategy. Any strategy of reaching the long-term objectives must be predicated upon the crucial dimensions, viz.-

- (a) developing the necessary levels of demand,
- (b) provision of the supply of services of all kinds needed by the people.

(a) Demand Development

62. The development of the demand for family welfare services, as noted earlier, is a complex process of political, social and economic volition. From every available data, the nature, pattern and level of motivation varies from State to State within the country although these States can be grouped in three broad categories of good, average and poor. Hopefully, as the several planned programmes of development move, the level of motivation will move synergistically.

63. While there are admittedly no short-cuts, evidence both in other developing countries and even within India, suggests that certain programme and measures have a major motivational impact. Two such are the female education and health care. While the exact 'thresholds' of these two parameters are not readily available, it is obvious that as large a national effort as is necessary should be put into these programmes.

64. Indeed from every available indicator, the women are the best votaries of the family welfare programme. The reasons are obvious. They have to bear the brunt not only of the pregnancy but in a significant number of cases of maternal care and rearing of the children.

65. We, therefore, recommend that the family welfare programme for the immediate future be increasingly centered around women. All services which cater to improvement of status and welfare of women should be given higher priority. Tubectomies and spacing methods such as IUD and oral pills should be provided fully. This does not mean that suitable services for men, whether of permanent or temporary nature should not be provided. On the contrary, they should be as the future programme will depend considerably on the role of the male as well. Suitable educational efforts to remove misconception about vasectomy have to be made. But on the basis of recent experience, we feel that the

demand from women in the short run will be more effective and that meeting such demand would be in the greater interest of the programme. Every step should, therefore, be taken to provide for greater involvement of the women in the programme. In fact, the general involvement of the community at the local, especially the village level for developing the necessary demand for family planning services needs a reiteration.

66. We are convinced that to the extent that developmental efforts are oriented towards women and children in the short run, the greater would be the 'felt need' for family planning services.

67. The most vital question then is what are the specific steps that can be taken to involve and motivate the people, and more particularly the women. We feel that the communicational strategies thus far followed are quite inadequate. The formal media, according to information available with us, do not reach more than a small fraction of the population especially in the rural area. The press, the T.V. and even the Radio are too remote. What seems to work at the moment is interpersonal communication and small group motivation.

68. The interpersonal communication or word of mouth at the local level, we recommend, should be institutionalised. Every local agency, institution or groups such as the Panchayats, wherever they exist,

co-operatives, special agencies such as S.F.D.A., Mahila Mandals should be involved in this process. They should be properly serviced through the local primary health centre. The stress should be on educating each village community especially the women on various aspects of health care, hygiene, nutrition and family welfare including family planning.

(b) Supply of Services.

69. In the short run the supply of services and therefore the entire delivery system is of crucial importance. In order to consider this issue in greater detail we have dealt with it in a separate section below under organisation of the Infrastructure.

Linkages

70. We now come to the vital issues of linkages between the general developmental programmes and of fertility control.

71. Over the last decade there has been an increasing national and international evidence that population growth and social and economic development are closely inter-related. We attempted to define this inter-relationship in precise terms. We have, however, come to the conclusion that the relationship is a complex one and is not amenable to a simple and

precise definition. This is so because the socio-economic factors are interwoven in a complex matrix of influences on population growth, some on the demand side and some on the supply side. To disentangle the effects with validity and precision would require several experimental designs since controlled experimentation in this field is not easily possible. Nor from the point of view of policy-making do we consider such precise quantification necessary. Our concern should be to identify those factors which have a secular effect in moderating population growth, raise the physical quality of life and be amenable to easy monitoring. We have also to keep in view that the people of India do not represent any single homogeneous entity. Intervention, therefore, cannot be an uniform exercise; it has to be undertaken separately for each sub-group of population identified on the basis of relevant social, economic and cultural criteria, and not at the national but at the local level.

72. Out of the various factors of socio-economic development which have a bearing on fertility control, we have considered only those which are of greater relevance in the contemporary socio-economic and cultural context. If we desire that the modification of the fertility on the part of the couples should be voluntary there is no alternative to the creation

of an atmosphere in which the benefits of reduced fertility become salient. The principal linkages which become apparent seem to relate to health care, education, water supply and economic factors such as employment and per capita income and urbanisation.

73. There are nine programmes under the Revised Minimum Needs Programme, (RMNP) viz:

- 1) Elementary education
- 2) Adult education
- 3) Rural Health
- 4) Rural water supply
- 5) Rural roads
- 6) Rural electrification
- 7) Housing for landless households
- 8) Environment and improvement of slums
- 9) Nutrition programme.

74. We are of the view that the needs and desires of the individuals at the most basic level are for longer life expectancy, better nutrition and health and greater employment opportunities. Indeed, the goal of NRR = 1 underlines the central objective of population policy as the achievement of a low mortality-low fertility equilibrium. Obviously, development strategies must incorporate a concern for mortality as well as for fertility. This calls for a broad front of co-ordinated policies in health, social, economic, communication

and technology fields. Indigeneous studies have shown that though general mortality is showing a downward trend, infant mortality is stubborn at levels varying from 120 to 130 per 1000 live births. A more equitable socio-economic development and more carefully targeted health and nutrition are imperative.

75. On the basis of the discussions in our Group and a detailed review of studies on socio-economic determinants of fertility and mortality that might be amenable to policy manipulations, we would like to emphasize the following programmes of socio-economic development character which appear to us to be crucial for policy making purposes and for upward social mobility providing motivation for smaller families:

- |   |   |  |
|---|---|--|
| 1) Adult education                        | X | To appreciate and demand   |
| 2) Elementary education                   | X | health and family welfare  |
|   | X | services.  |
| 3) Health care                            | X | To reduce infant mortality   |
| 4) Protective water supply and sanitation | X | and raise the physical   |
|   | X | quality of life  |
| 5) Nutrition programme                    | X |  |
| 6) Rural electrification:                 |   | To enable a more diversified life  |
| 7) Employment                             | : | To improve the purchasing power and generate demand.   |
| 8) Status of women                        | : | To enable women to take larger part in family decisions and to equip them for better child care. |

- 9) Communication programme: To improve motivation and change the perception of people.

76. There are two levels in securing linkages: the area approach and the sectoral approach. The area approach operates at the area or peripheral level and essentially implies a convergence of services or a functional linkage on a geographic basis. Public health, rural water supply, nutrition, education and rural development are on the whole well suited for this approach and need to be closely linked with family welfare services at the periphery.

77. Linkages to be effective have not only to be integrated at the area level but also at the sectoral level. The linkages depend upon the manner in which the resources would be allocated to the different programmes. The sectoral approach seeks organizational/financial linkage. It would be necessary for effective linkage that development programmes which have a direct effect on raising the physical quality of life of the people should get a higher priority in resource allocation. The Group has not been able to indicate the investment dimensions of the various programmes over a long term perspective for reasons of technical and policy nature. We are, however, clear that the dimensions of financial investments would be enormous and would require drastic changes in the



investment and allocational pattern followed in recent years. We have limited our efforts in this direction to the health and family welfare programme. We suggest that more detailed analysis may be made by <sup>the</sup> Planning Commission after considering the overall tradeoffs between the sectoral outlays.

78. Admittedly, linkages have a high degree of relevance when population and development goals are synergistic. A good example of such a synergism is the goal of  $NRR = 1$  by 2001 A.D. and the co-terminous goal of 'Health For All by 2000 A.D.' which inter alia makes possible the promotion of the 'small family norm' through the communication network of an expanded health service delivery. Such closely linked operational goals within a sector is regarded as an effective approach to link population policy and development programme. The Group recommends that long-term goals with appropriate 5-year phasing may be worked out for the nine programmes listed in para 75.

79. Once such exercises have been carried out, it should be possible to indicate the investment dimensions and also monitor the programmes more closely on both the population and development axes. The population-development nexus has, at its base, the need for equity in development which implies a larger share for social investment. Though social investments in the short

run might need readjustment in the economic growth strategy in dealing with question of linkages, the nature of and priority in social investments need careful consideration because of the tradeoffs involved.

80. Coming specifically to the financial implications of the Health and Family Planning sector, our findings are the following. According to current indications, the share of health and family planning expenditure in total Plan outlay is 2.86 per cent in the period 1978-83. in terms of our recommendations this will be hardly sufficient. In our view, an annual increase of 8 to 10 per cent is essential to keep to the rather ambitious goals we have prescribed. How such outlays should be used is an important problem by itself and we have tried to deal with it in the organisational dimension later.

81. We feel that effective linkages of the family planning programme with the programmes we have listed above will be the first important step in resolving the problem before us. If this could be done in conjunction with additional investments in these programmes, the results would be achieved even faster. This, however, may not be feasible in the short run without affecting the overall allocational framework of the plan and hence even effective linkages within the existing Plan outlays will be a crucial first step.

## Institutional Framework for Linkages

82. The problem of effective linkages ultimately resolves itself into institutional arrangements at all key policy and operating levels. The linkages cannot be truly operational unless and until the allocation of investment resources and programme management are closely integrated. The main levels at which the linkages are important are the following:

- (a) At the level of Government of India in view of its resources allocation and decision-making role.
- (b) At the State level where most of the administrative and organisational responsibilities lie.
- (c) At the district level where the main implementation instruments are currently located.
- (d) At the village or the community level where the actual operations have to take place.

83. The Working Group feels that both outward and inward linkages are essential to the success of the programme. In order to suggest such suitable and effective linkages, we considered a series of institutional alternatives. While discussing the various alternatives, the Working Group was generally of the view that the problem of effective linkages was not of creating large superstructures in New Delhi but of providing the policy and implementational linkages at the various levels, especially at the field level.

## Population Commission

84. A major institutional innovation suggested to the Group was the Population Commission. The main argument in support of the Population Commission is a clear definition of its role specially on the basis of the Philippines experience where the Commission has executive powers and its composition provides for the necessary linkages with the highest political authority. After considering the various pros and cons of the Population Commission and its relevance to India, the Working Group felt that such a Commission, if it is to be effective, would have to be statutory. Otherwise, it will tend to be merely an advisory body. Even if the Commission were to be statutory, the Indian administrative structure does not normally react well to the imposition of such an outside body on the system. Therefore, even with abundant goodwill it is likely that such a Commission would tend to be ineffective either because it will not be involved in the day to day participation in decision making or because its composition and membership would be amorphous. Besides, to give it a highest level political role in decision-making in the country would be creating alternative foci to the Planning Commission and to the National Development Council. This will neither be possible nor in the

present context of the Indian policy and administrative apparatus of the government, even desirable.

85. We are, therefore, not in favour of creation of a Population Commission.

#### Population Policy Board.

86. The Population Policy Board would not be very different in terms of the problems it will face. An executive board of this type with financial and investment powers, decision-making etc. relating to population policy may not work successfully without adequate administrative support from the various ministries. In our view, linkages with development programmes require linkages with population orientation not merely at the national level but down the line with active contact with the various specialised services.

87. The Working Group also therefore did not favour the creation of Population Board.

#### New Framework of Policy and Administrative Linkages.

88. The Working Group felt that while the alternatives for population policy making and implementation need not be dramatic such as Population Commission or Population Board, organisational linkages were necessary to be built within the existing political and administrative framework of the country.

89. Given the importance of the task and the complexity of the functions involved, the Working Group felt that such a function should be divided into two distinct parts. The first broader national policy and developmental framework and the second the administrative framework.

90. In so far as the policy framework is concerned, the Working Group strongly felt that the population policy development would not be possible without the political support at the highest national level. It is therefore necessary that the population policy structure should be headed at the highest level by the Prime Minister. Since however the major allocational decisions in the various development programmes having population linkages are made at the Planning Commission under the chairmanship of the Prime Minister, the policy function would best be performed in the Planning Commission. The function itself could either be under the direct charge of the Deputy Chairman or, better still in our view, under the charge of a full-time member of the Planning Commission. Since allocational functions specially investment decisions have wider national political consequences, the Working Group felt that it will be highly desirable to have a special meeting of the National Development Council on programme of population policy and the effective integration of

population policy with the broader development strategy. This involvement of the highest planning agency in the country consisting both the Central Cabinet and the Chief Ministers would be exceedingly desirable for providing the required level of political support for population policy and programme.

91. Policy linkages which we have suggested should not stop at the national level. It is equally important that similar institutional framework should be evolved at the State level so that the Chief Minister of the State and the State Planning Boards are fully involved in similar exercises for each one of the States of the Indian Union.

92. In addition to the new policy role of the Planning Commission, we are also of the view that for providing proper integration between policy and implementation, the existing Cabinet Committee on Population under the Chairmanship of the Prime Minister should continue. The Deputy Chairman of the Planning Commission and the Member in charge of the population field should be special member of this Committee. It is at that level that programme specific political integration between population policy, interface with various development programmes, and their implementation should be dovetailed.

93. At the administrative level, the Committee of Secretaries, in our view, has an important role. It should consist of Secretaries of concerned development departments especially Health and Family Welfare, Education, Agriculture, Finance etc. The Committee of Secretaries should service the Cabinet Committee on Population Policy and should prepare continuous reviews of the various programmes which have linkages with population policy and bring about an effective linkage between the various operating ministries and departments. This we feel is a crucial function where a large number of day to day issues would need to be resolved and closer integration between the various ministries and departments ensured.

94. The Committee of Secretaries should be headed by the Cabinet Secretary but serviced at the secretariat level by the Ministry of Health and Family Welfare. The Ministry of Health and Family Welfare should, as the focal point, remain in continuous touch with the various departments having a bearing on operational issues and from time to time circulate detailed papers and problems as they emerge at the field level and suggest specific action.

95. A similar Committee of Secretaries should be established at the State level under the chairmanship of the Chief Secretary and serviced by the State Ministry of Health and Family Welfare.



96. The question of effective linkage should again be taken up at the administrative level in each of the districts where under the chairmanship of the District Collector or in States like those in Gujarat and Maharashtra, the Chief Executive Officer. Effective coordination and linkages between the various State agencies operating at the district level should be provided.

97. The problem of linkages at the village or community level is a genuine one, but under the present institutional structure does not warrant creation of a separate agency. The linkages should be developed with greater care by the district administration especially at the block level.

98. We feel that the institutional linkage framework should be created as quickly as possible so that within the next one year or so this process of bringing about effective linkages is discussed both in aggregate terms as well as in the decentralised terms as might be required, given the diversity of the problems involved in the country. We strongly recommend that this issue of policy and administrative linkages should be given highest consideration at the earliest opportunity.

Organisation of the Infrastructure

99. In discussing the organisation of the infrastructure the Working Group considered the twin goals of achievement of NRR of 1 by 2001 and of health for all by 2000. Both these call for more equity in the distribution of health and family welfare services. For this purpose, we consider a reorganisation of the whole system of health care and family welfare services with detailed planning on a multi-level basis as necessary.

100. Basically, organisational programme in terms of the entire programme of population control lies in effective utilisation of the general health manpower available in the country. By health manpower we do not mean only allopathic medical persons but the medical personnel involved in all the systems of medicines, in addition to the people involved at the various levels for provision of health care in one form or the other to the people. We include the community health volunteers, wherever that scheme exists, the village Dai, the voluntary organisations, the private practitioners, and of course the entire official health and family welfare delivery system. Organisationally, it is most important that every institution available in the country is considered a national asset for the resolution of such a massive task as population control. No institution and individual should be regarded as irrelevant or unimportant.

101. Admittedly, under this programme the normal tendency is to expand the governmental apparatus in the field of health and family welfare. We have, however, to acknowledge the unfortunate fact that the official system even if it is present on paper, is not always available or accessible to the local people. The data from State after State indicates that in a significant number of cases the official health manpower is not really on the ground and in several instances even if it is, its access to the people is either low or sometime non-existent.

102. We are therefore of the view that consolidation of the existing health and family welfare infrastructure is even more important than expansion. We should systematically provide for effective consolidation of the existing infrastructure as the first task before the official programme. Essentially the existing infrastructure should be made both effective and accessible

103. In emphasizing utilisation of the entire health manpower we wish to draw specially upon the role the voluntary organisations can play with respect to health and family welfare services. Such bodies have played crucial role in several parts of the country and have demonstrated how much more can be done even outside the state intervention.

104. We do, however, notice that large number of voluntary organisations are more in urban areas than in the rural ones. While obviously urban areas are important, however, since the bulk of India's population lives in rural areas, it is necessary to develop effective voluntary agencies much more in rural areas than hitherto. This encouragement should be a matter of deliberate national policy and while the State may not always play a direct role in this respect, national policy should be to encourage development of such voluntary agencies in rural areas by private individuals, groups, people's organisations, etc. to whom the State should provide appropriate fiscal and other incentives.

105. A programme of health care and family welfare services, given the diversity of the country and local conditions, cannot possibly be centralised. Indeed, decentralisation is essential to develop the local foci, both of organisation and action. We should therefore move towards a larger measure of decentralization in as quick a time as possible, subject of course to the local conditions and institutions available for purposes of decentralization.

106. In our view, mere provision of extra funds to the States is no solution to the problem of delivering improved health and family welfare services. By

increasing quantity we should not obscure qualitative deficiencies. It is of primary importance to ensure that the present infrastructure is put to optimum use. We refer both to the physical infrastructure as well as the medical and supporting manpower which has been provided for. In this context, the Working Group felt that the PHC and the sub-centre building need better maintenance. The present poor maintenance is largely the result of a centralized PWD maintenance system. To ensure adequate maintenance of the peripheral health structures etc., it would be necessary to earmark funds for maintenance of health centres in the periphery.

107. Keeping this in view the Working Group also felt that in opening new centres care should be taken by which the maintenance requirements are minimal on the one hand while on the other we ensure increased people's participation in the creation of such centres. The local needs and local resources must receive the highest consideration in building and maintaining the centres. The suggestions made in this context are that for locating new sub-centres the land must be acquired by the Government at a suitable place, the structures should be erected with the help of voluntary labour, and by the use of locally available material, subject, of course to the need for having certain standards in these construction. Such an approach would take the health

and family welfare programme to a participative phase and impart to it the character of 'people's programme', which we have stressed earlier. Further, instead of opening sub-centres at absolutely new places care be taken to locate them as annexes of rural dispensaries, whether they are ayurvedic or unani or allopathic. This will result in security for the ANM and also bring in the curative institutions into the promotive - preventive health fold philosophy.

108. The replacement and repair of defective equipment in PHCs and sub-centres needs attention. There should be suitable budgetary provision for such maintenance and the CMO of the district should be personally responsible. Also the system of record keeping at the PHC and sub-centres should be streamlined.

109. The Working Group also felt that another reason for the existing facilities not being put to optimum use is the inefficiency of some of the local functionaries. While there are several ways to improve the health and family welfare delivery system, the Working Group is of the opinion that skill improvement of ANM, Dais and CHV backed by a suitable referral system should be an essential ingredient in improving the effectiveness as is being sought to be tried out in the new Area Projects. Better supervision of the functionaries and improvement of the mobility of the functionaries are also crucial elements. Instances were also cited of how the mobility of the peripheral staff could be improved by providing them either a bicycle or provide loan for purchasing motor cycles/scooters. These suggestions need careful consideration.

110. A related question is whether the health and family welfare delivery system could be passed on to non-government organisation (NGO) so that they become truly people's programme and are sustained by the people. Some of the agencies that could be considered are the Panchayat institutions, the voluntary organisations etc. Given the diversity of local conditions and institutional framework, we are of the view that there cannot be a uniform prescription for the entire country. We have already suggested that the Panchayats should have a decisive role. However, since the Panchayat map is uneven, we need to examine the options available to those states where Panchayats are not well organised or do not exist. While some states like Gujarat and Maharashtra have an effective Panchayat system, in several other states this system is not so effective while in few others the institutions have yet to be established.

111. The Working Group considered for the Panchayat institutions both the role of motivation and the delivery system of contraceptives and services. We felt that the States who have strong Panchayat system can perhaps be given both the responsibilities while the States that have less effective Panchayat system may be given only motivational functions to start with. In those states where there is no Panchayat system in vogue, the possibilities are either for the Government to handle the

motivational and distribution functions or to hand them over to suitable voluntary agencies.

112. Under any of the three systems indicated above, the family welfare programme can become a people's programme only when the people develop progressively a cost-sharing approach. Though this may not be insisted upon at the beginning and the activities could be started through a special fund, it is desirable that gradually these activities should become self-financing. There are good examples in Gujarat and Rajasthan of private donations for constructing new buildings and other infrastructures for starting health centres in rural areas. The Working Group also noted that in certain projects, though initial funds were provided by outside agencies, the programme has become nearly self-supporting in the course of five years, and has claimed significant achievements (reduction in infant mortality, improving the immunisation status, increase in contraception level, decline in birth-rate and death-rate), through a participative approach.

113. In regard to the model plan for infrastructure development in the area projects under foreign assistance, the Group was informed that such a plan is uniform in the districts covered in different states because the districts are selected as 'needy areas' requiring intensive services. The area projects are



based on foreign aid, but are within the budget structure of the Ministry of Health and Family Welfare and hence an essential element of the strategy for determining the optimum and replicable infrastructure facilities for 'needy districts'. The facilities envisaged in the projects are better training and supervision of the functionaries, improved mobility and an effective communication and education strategy. The Working Group was also informed that in the area projects, which would commence in 1980 in 44 needy districts spread over 12 states, a base-line and end-line survey along with a built-in monitoring system are being envisaged. The Group recommends that the impact of the area projects may be evaluated by independent external agencies.

114. The Working Group considers that in a normative approach (such as one sub-centre for 5000 people envisaged in the model plan) we have to go not only by the yardstick of population to be served but also by technical considerations like human settlement pattern, density of population, the road network and the accessibility of the sub-centre. Also, the relative merits of expanding the network of ANMs and the training of indigenous Dais needs an objective assessment. The ANMs at present are mostly outsiders, often young and unmarried, and have their own set of problems of safety and security in remote areas where they are posted.

On the other hand, the indigenous Dais have a better credibility in the eyes of the villagers and are not beset with problems of personal security. If the Dais are adequately trained, they could play a crucial role in Health and Family Welfare. This approach would be particularly relevant in Group A states which have poor performance in family planning and health. As far as possible, local persons should be recruited and trained for paramedical work. The minimum educational qualifications for ANMs may be relaxed but this should be compensated by more intensive training.

115. Health care is a continuous process with many contact points. The positive elements in health, the importance of preventive and promotive health and continuity of care through education, technology etc. call for a massive attitudinal change with the physician at the core. A critical problem which the Group considered is the availability of trained manpower in rural areas. The Group noted that a majority of the medical graduates turned out each year go for post-graduate specialisation and thus their services are denied to the rural areas. In order to have a more effective utilisation of health manpower, the Group recommends that two years' service in rural areas must be made a pre-condition for entry into post-graduate courses. The internship programme of medical graduates

could also be utilised. For this purpose, adequate facilities must be created in the field for the medical doctor. What the health system needs in terms of medical manpower is strengthening and consolidation and not expansion.

116. To make these innovative ideas possible, the Working Group strongly feels that both the family welfare programme and the Community Health Volunteer (CHV) scheme, which has enormous potential, should be hundred per cent centrally sponsored.

117. Under RMNP, environmental improvement is confined to urban areas only. We recommend that the Planning Commission should make adequate provision for improvement of environmental sanitation and health education in rural areas as a part of the outlay on rural health under RMNP. Also school health needs close and effective monitoring.

118. It is important to realise that great expectations have been aroused in the minds of the rural masses by the CHV scheme and about 100,000 CHVs have been trained and inducted into the field. There is need for a technical conference to undertake a thorough stock-taking of the strength and weakness of this scheme before announcing a new phase of expansion of this scheme.

119. Another problem which needs attention is the situation created by health being a state subject and family planning a de facto central subject. Methods of integrating health and family planning at various levels should continue to be constantly reviewed, as at present.

120. The role of voluntary agencies in promoting communication for family planning and population policy is unique in that unlike the Government functionaries, they are part of the community and are more alive to its needs and responsive. Though we recognise the important role of voluntary organisations as innovators, catalysts and change-agents at the peripheral level, we would also urge that as soon as possible, the voluntary organisations should become voluntary in the sense that they do not depend excessively upon governmental financial support. Admittedly, this situation would take time. Mean-while in order to secure the much needed cooperation from the voluntary organisations at the periphery, it would be essential to simplify the grant procedure for these organisations without in any manner diluting their accountability for the grants received. We are aware that this work has already been started by the Department of Family Welfare and would urge that this becomes a regular and continuous process. A closely related problem besides the provision of grants to voluntary organisations is the question of improving their performance per se. It would be innovative to have a system of counselling to step up

poor performance in a voluntary agency before closing down their work. Also the monitoring and evaluation of their work must take into account a comparison with levels achieved by centres run by government and non-government agencies rather than measuring the performance by a single yardstick of the target. Voluntary organisations should get involved more intensively in motivational work and some formulation for giving grants on the basis of performance in motivation may be considered. Implementation of the Act relating to age at marriage is an area for effective intervention by voluntary organisations. The Grants Committee set up by the State Governments should work regularly and also have some non-official representative on it to strengthen linkage between the voluntary organisations and the Government. It should be ensured that the work of non-government organisations and other community agencies are guided by a set of objectives, operational goals, grant-in-aid system, counselling, monitoring and evaluation, suited to the conditions and realities in which they function, while at the same time, providing for effectiveness and accountability.

121. A critical issue is how the community could be stimulated to work in areas where there are no peripheral agencies like Panchayats, Zilla Parishad etc. and where a well organized voluntary body could not

extend its reach. One of the major directions is by stimulating the formation of a great variety of local voluntary bodies like Mahila Mandals, Yuvak Mandals, Farmers' Clubs and other kinds of peer groups who can interact with each other in ways which they perceive to be beneficial to the community in light of the demographic situation. Also, schemes to involve the trade unions and the co-operative sector need to be formulated.

122. The Working Group considered the nature of communication support that would be needed by the population-oriented development programmes. The group noted that in the field of family welfare there is a three-pronged motivational strategy:

- (a) Strengthening of the climate in favour of the programme through mass media;
- (b) Increasing acceptance through group situation and inter-personal communication; and
- (c) Induction of population education in the formal and non-formal systems already in vogue.

123. The Group was also given to understand that a comprehensive evaluation of the media has been taken up which would comprise:

- a) evaluation of the Orientation Training Camps

- b) content analysis of mass media material
- c) reach and effectiveness of various communication media
- d) study of the media institutions.

While awaiting the results of such an evaluation which should be conducted carefully, we would like to emphasise that field programmes such as orientation training camps, integration of population education with agricultural extension etc. should have a built-in monitoring system to evaluate the effectiveness of the approach. Also, an objective study may be organized whether the motivational efforts of the peripheral functionaries have been obscured by the target orientation of the programme and the provision of incentives.

124. The Working Group is not in favour of high cost media. In view of the extensive outreach of the Radio (with 90% of population within the listening Zone) this medium should be increasingly used to transmit messages on the programme. To put the radio for effective use, the Group would like to suggest a differential communication strategy for specific target groups such as agricultural and landless workers, industrial workers, plantation workers, urban slum dwellers etc. If the messages can be structured keeping in view the occupational culture of these different target groups, and if such messages are transmitted through the radio, it is expected that

behavioural changes could be natural and hence faster. We would like to suggest a separate communication strategy for each of the three groups of States taking into consideration the demographic situation, the needs, resources and the socio-cultural setting. Also communication effort should be specially devoted to improve the credibility of the family planning programme, to handle the problems arising from contraceptive side-effects and to highlight the relevance of the MCH to the rural families.

125. Experience shows that the Information, Education and Communication (IEC) system must now be consciously geared to the needs and aspirations of younger age groups since this is the group which would be more responsible to the stimuli which can bring about changes in their life styles and desires to adopt new norms of behaviour. An appropriate communication strategy directed towards the late teens and upto the age of 25 would be rewarding. The message in their case must involve several elements and constitute as it were, a communication package, involving population education, sex and family life education, training in skills for income generating occupations, leading to self-development on the one hand and community service on the other.



126. Unless the functionaries at the peripheral level such as ANM, MPW, the family planning extension worker and non-officials like CHV and the Dai are themselves fully motivated, they cannot be successful change agents. Studies in Uttar Pradesh, Bihar and Andhra Pradesh conducted during 1973-78 have indicated that some family planning workers had never visited some of the families in their area. While large area of jurisdiction, lack of logistical support and effective supervision etc. could be the cause of low level of contact between the functionaries and the families, serious measures are necessary to improve the morale of the extension workers and to equip them better to communicate with people and motivate them, since contraceptive services require a personalised approach. Further, officials of other departments who work at the peripheral level such as in agricultural extension, should also be involved in securing communication support to the family planning programme by suitably training them with the help of audio-visual aids.

### Incentives

127. The Working Group noted that the Government decision to link 8 per cent of Central Plan assistance with performance and success in Family Planning and Welfare incorporated in the Population Policy Statement of April 1976 as well as in the Statement of Policy on the Family Welfare announced in June 1977 has not been

operated so far due to certain difficulties. The main objection to such an arrangement is that the States which are weak in infrastructure and consequently low in family planning performance will be further adversely affected if there is a cut in their Central assistance. The Working Group also does not favour this concept which is punitive and not promotional in nature.

128. Another suggestion considered by the Working Group is that 8 per cent Central assistance admissible to each State could be kept separately and given for earmarked projects to the same State with a view to develop necessary infrastructure for the family welfare programme. Though this is an improvement over the first suggestion, it basically suffers from the same defect of weaker States falling back further.

129. We would, however, like to suggest that a suitable sum of money outside the family welfare budget could be earmarked by the Planning Commission as an incentive for good performance in family planning. Such funds may be used by the recipient States for innovative, promotional programmes and schemes for improving the health infrastructure. Special attention to the Group A States may be paid through this fund.

130. Besides the clinical, education and communicational approach, the Family Planning Programme also focusses on incentives. At present the programme envisages incentives to individuals in the form of compensation for loss of wages arising from hospitalisation involved in sterilisation operation and provision of food and medicines. Such modest cash compensation may be continued so as to enable the low-wage employees to avail of the family planning facilities without undue hardships. While some increase commensurate with cost of living is desirable and the additional incentives provided by some States could be justified from the point of view of their sense of involvement, the Working Group does not favour any spectacular step-up in cash incentives to attract acceptors as that would be wasteful of scarce resources. Long term incentives built on social security concepts are desirable to sustain the programme. The Group noted that recently the Government have announced for Central employees (who constitute an effective demonstration group) these type of incentives (such as higher maturity value on postal Life Insurance policies, lower interest on house building advances for those accepting sterilisation after 2 or 3 children). Such incentives which combine thrift with social security should be progressively extended to other important target groups such as factory employees, Plantation workers etc. The

Group is firmly of the view that incentives should be of the promotive type; disincentives and punitive measures have no place in family planning which depends essentially on social change.

131. Consistent with the view held by the Group that family planning would be more successful in situations where there is an upward social mobility, we recommend 'Group Incentives' to villages, Panchayats, local bodies etc. which would create community assets and thus bring the community closer to the programme. We do not consider it desirable to specify a national framework because the local conditions will differ and it would be essential to work out the "Group Incentives" on the basis of close discussions with the State Governments. We do, however, recommend adequate provision for such incentives in the plan programme.

Contraceptive Technology, Biomedical Research and Development.

132. Three areas of contraceptive technology relevant to the population control programme are:

1. The status and the usage of existing contraceptives.
2. Contraceptives which are still in the stage of clinical trials.
3. Contraceptives which are still at the laboratory stage and would require long term development.

### Existing Contraceptives

133. As regards methods which are currently available for family limitation, we feel that in view of the existing health infrastructure in the country for female sterilization, Post partum sterilisation and mini-laprotomy would be most suitable for usage in the field conditions in our country. We also agree that for the immediate future, the laparoscopic methods may remain confined to the hospitals where the required expertise, adequate maintenance and back-up facilities are available. Vasectomy is a relatively simple method for male sterilisation. However, the programme is still in a low-key. Organisational, educational and motivational efforts should be strengthened to bring about greater acceptance. Multi-centric trials to obtain some concrete data on the immunological, endocrinological and psychological sequelae following vasectomy are necessary. These, we suggest, may be undertaken by the Indian Council of Medical Research (ICMR).

134. Regarding spacing methods, the Group recommends that for condoms, there is a need for studies on its distribution system availability and usage. Especially some pilot studies may be undertaken on the usage of free condoms versus priced condoms. For IUDs, we agree that Copper-T 200 in pre-sterilised packs with inserters may be used widely in the National

Family Planning Programme. Proper instructions and training for their usage by paramedics to avoid any complications, including pelvic inflammatory diseases is, however, necessary. In so far as the Oral Pills, are concerned, we agree that the low-dose combination pills containing 30 mcg ethinyl estradiol are suitable for national usage. However, some studies are required on the interaction of oral contraceptives with various therapeutic agents, nutritional status of women and parasitic diseases which are common in our population. On medical termination of pregnancy (MTP), the available data indicate that there is no increase in complication rates when Suction evacuation is done prior to 6 weeks or at 8 weeks. On the other hand, in cases of suction performed prior to 6 weeks after the last menstrual period about 30 per cent of women may not be actually pregnant and in those cases the procedure becomes unnecessary. While these studies were undertaken in the teaching centres where the ICMR has its contraceptive testing units, the Group recommends that it would be desirable to extend these studies to Primary Health Centres (PHCs) and District Hospitals for which adequate support may be provided by the Government.

#### Newer Contraceptive Technology

135. In respect of contraceptives which are still in the stage of clinical trials, the Group recommends

that for female sterilisation, a suitable method for occluding the fallopian tubes with chemical agents would be very useful since it would be a non-invasive method for female sterilisation. The Group recognized that an important facet in this technology is to develop a suitable drug-delivery system. We understand that the ICMR is in contact with the WHO with their proposed plans in taking part in these studies. The Group also recommends that clinical trials with clips and bands for occluding fallopian tube may be conducted. For male sterilisation, the Group recommends that the efforts should be intensified to make this technique reversible and recommended that support may be given to those investigators who are experimenting with reversible techniques whether surgical or with various plugging devices such as copper wire, silicone plugs and biodegradable polymers.

136. The Group recommends that condoms which have a lubricant to increase sensitivity may be manufactured in India on an adequate scale to increase its usage, particularly in urban areas. We also recommend that several newer generations, of IUDs such as those containing hormones, e.g. progesterone or norethisterone may be utilized to conduct clinical trials in India, preferably in the ICMR national network. It has been claimed that such IUDs reduce bleeding complications. While it is

unlikely that oral pill technology will have changed significantly during this decade, certain newer drug delivery systems such as subdermal implants, vaginal rings, intra-nasal spray may be explored. These newer leads in the field of contraception such as subdermal silastic implants and intranasal spray have been generated by our own scientists in India. Those scientific groups working on these themes may be encouraged to further develop this technology to find out whether or not these leads would turn out to be useful. While the vaginal rings may be a good method of delivering drugs, adverse clinical side effects such as high local infection rates which may occur due to poor hygienic conditions, high expulsion rates due to badly torn perineum as a result of poorly conducted home deliveries as well as squatting toilet habits, may be limiting factors for the mass use of this device.

137. The Group has taken note that there are no injectable preparations which have yet been cleared for clinical use on a wide scale. We urge the ICMR to conduct evaluation of the existing 3 monthly and 2 monthly or one monthly injectable preparations which are available for clinical trial purposes.

138. The Group considered the Indian literature which is full of indigenous drugs claiming contraceptive efficacy. We agree that the available leads in the



indigenous system may be explored to develop suitable contraceptive methods based on traditional systems of medicine.

139. The Group recommends that, for first trimester abortion, the isap tent developed by the Central Drug Research Institute, Lucknow, is a good replacement for the more expensive available methods and its efficacy may be further studied in multicentric trials. As far as newer generation of drugs to induce abortion are concerned, especially those belonging to prostaglandin group of drugs, we recognize that though they may have more efficacy in terms of reduced abortion time interval, complications such as bleeding problems and incomplete abortion are rather high as found in previous ICMR studies. Research to develop newer abortifacients such as PG vaginal suppositories or orally active agents deserves to be supported.

#### Contraceptive R. & D.

140. In regard to contraceptives which are still at the laboratory stage and would require long-term development the Group recommends:

- (a) For both male and female sterilisation, there is a need for those techniques which will allow the reversibility operations to be done in the field conditions such as

injection of biodegradable polymers or bio-compatible metallic alloys.

- (b) A condom which can have an aphrodisiac to maintain the sexual stimulation may be developed to increase its acceptability and usage.
- (c) In the field of IUDs, the most important need is to have an IUD which will fit into the size of involuting uterus during the post-partum period. This is a priority item of research since a woman is most highly motivated during this period.
- (d) For steroidal contraceptives, long-acting drug delivery systems such as bio-degradable polymers which can be inserted under the skin may be explored.
- (e) One of the major advances in the India reproduction research is the lead to develop a suitable contraceptive vaccine. This involves the development of an antigen which will generate anti-bodies against placenta as well as LA-RH analogues and Zón Pellucida antigens. This work needs to be supported adequately since it would be a major help in the programme if one could have a technology available which can provide temporary sterility in women produced by a single injection.

141. The Group recommends that while efforts must be made to improve the existing contraceptives as regards their safety and acceptability, necessary support must also be given for developing newer leads to improve the technology so that improved methods which are simpler,

cheaper, safer and more easily acceptable may be evolved. The Group considers that a proper monitoring and surveillance system of family planning service in India may be developed to constantly monitor the on-going activities in the national family planning programme so that timely remedies and appropriate mid-course corrections may be introduced to improve the programme. Also such a system would facilitate the introduction and/or testing of any newer contraceptive agent which may be developed in course of time. We wish to emphasize the fact that it takes roughly about 10-20 years to develop an entirely new contraceptive technology and that the cost for a new lead to reach the stage of mass use from the time the idea is generated at the laboratory bench level may be in the range of Rs. 20-30 crores.

142. Lastly, we wish to emphasize that if the existing technology is to yield better results, the delivery system has to be improved and integrated into the Primary Health Care Services. These need to be organised with the active participation of the community. Continuity of care holds the key to the generation of motivation for the continued use by the people of contraceptive technology. A bio-medical technology in contraception can be put to effective use only if socio-cultural factors determining the use setting of that technology are understood and appropriate social carriers of that technology are employed. Some of these issues, we have dealt with below.

### Socio-Economic Information and Research

143. The Working Group hardly needs to emphasize that the long-term policy of population-oriented development requires adequate data and research base. Research activities have to be organised not only to fill gaps in knowledge but should also be oriented progressively to identify specific problems and provide data base for policy making. Priority areas constitute population policy research, communication action research, methods research, evaluation research and experimental designs. In short, research in population itself requires a development orientation which in turn implies adequate emphasis on applied research, especially policy research.

### Health Information

144. One of the basic inadequacies we have noticed in terms of the data for effective policy making and for action is highly inadequate sources of information on health. None of the existing institutions provide timely and reliable data. We must therefore move quickly towards a better health information system. Given the national infrastructure now developed in most parts of the country, this should not be too difficult nor too costly. Indeed such costs are worthwhile as they will enable more accurate action

programme and more timely delivery of services to take care of location specific health care problems.

### Socio-Economic Research

145. We wish to emphasise that the research thrust go out of the programme experience-programme not merely in official sense but in the broader national context. It is, therefore, essential that our research organisations including the population research centres, should monitor continually programme experience and development and frame policy issues and policy research. Considering the size of our research infrastructure, the problem may appear rather vast. Even so, a beginning can be made where the infrastructure is already good and adequate institutional infrastructure simultaneously developed in those parts of the country where it is weak.

146. Some of the priority research areas are indicated below:

(i) Population policy issues need to be studied from many points of view. Research into policy aspects of population, particularly those that are designed to influence demographic variables and those that respond to population changes need to be pursued vigorously. In the absence of such research neither an alternative population policy nor any long-term choice could be decided.

(ii) Analytical research concentrated more on correlates of fertility. Comparatively little work has been done in understanding how mortality levels are influenced by socio-economic factors. Inequality of death is a part of the gross inequality in health status between different socio-economic categories. The goal of 'Health for All by 2000' would be illusory unless progressive efforts are made to bring equity in the health status of population. There is, therefore, an urgent need for mortality research and quinquennial morbidity (or health) surveys, particularly in rural areas.

(iii) Population programme such as control of fertility, reduction in infant mortality etc. do not fall into a simple input-output relationship. While in every programme the input is measurable and monitorable and the output is indicated in the form of quantitative goals, the 'process' by which the input brings about the desired output is not monitored. There is, therefore, a need to develop techniques of 'process evaluation'. A typical example is the input in the form of MCH services, the anticipated output being a reduction in infant and toddler mortality and higher acceptance of family planning methods. But the 'process situation' here is how the people understand the importance of the MCH programme and whether

they have an appreciation of this programme in their family context. If the people, who are expected to be the beneficiaries of MCH programme, do not have a perception about the relevance of this programme for their families and continue a traditional fertility behaviour, it would appear that the 'process part' has been a failure and the expected output may not materialise.

(iv) Studies are needed on improvement of management, delivery and utilisation of services associated with population, including family welfare. The Group has underlined the effective implementation of the minimum needs programme (MNP) in contributing to the quality of life in rural areas, so necessary for bringing about social and attitudinal change in favour of smaller families. Systematic studies are necessary to determine the effectiveness of the MNP in providing upward social mobility and motivation for smaller families, and the delivery system in these programmes.

(v) Expansion of family planning services without identifying the factors responsible for high fertility would be self-defeating. Hence, development of social indicators which would reflect the quality of life and the inter-relationship between socio-economic and demographic phenomenon should be an area of interest.

(vi) Since fertility behaviour is based on an individual decision within the circumstance of the family, more family type of studies would be useful to understand the decision-making process.

(vii) We attach considerable importance to disaggregated studies on target groups such as agriculture workers, tribals, weaker sections, plantation workers etc. It is expected that the feedback from such research could be utilised to develop policies to improve the motivation of people to participate in the formulation and implementation of the programme.

(viii) A more intensive programme of analytical studies based on Census 1981, especially small-area studies or target group studies would be helpful in having a cross-sectional view of population and socio-economic variable for policy and programme.

(ix) Children upto the age of six now constitute nearly a hundred million. Studies on child-oriented population strategies are highly relevant.

(x) The question of unmet demand and disequilibrium between supply and demand come up frequently in the discussions in the Group. It is necessary that surveys are organised in each State to determine the level of demand for contraception.



Similarly studies are needed to find out why a non-acceptor remains in that state and whether lack of accessibility of outlets is a factor.

(xi) For building the appropriate integration strategies in a long-term perspective of both demographic objectives and development goals, it would be necessary to have a systems approach, which involves the building of economic-demographic models.

(xii) Equity in health and family services implies a progressive decentralisation. It is necessary to identify more village level organisation, however amorphous, to assist in the service delivery system.

147. The data for these studies may not flow from the conventional systems of demographic data, namely, census and vital statistics. It would, therefore, be necessary to supplement the conventional sources through ad hoc surveys devoted to specific problems and progressively improve the data-base for population policy and programmes. Nevertheless, there is a need to improve urgently the vital statistics system of the Registrar-General, India, by the effective implementation of the Registration of Births and Deaths Act, 1969. The existing system of registration of marriages is usefully inadequate. If we wish to effectively plan

our population growth and monitor the eligible couples, compulsory registration of marriages, is essential. Appropriate legislation in this direction, we feel is now necessary. Since improvement in vital registration may take a long time, we feel that progressively the Sample Registration System (SRS) of the Registrar-General, India, should be expanded to a level that it could yield vital rates atleast for the districts which have a population of three million or more according to the 1981 census. In the rural areas even the fact of death is not fully reported and the cause-of-death coverage is almost negligible. Recognizing that a major cause of this information gap in mortality pattern in rural areas is the non-availability of a doctor at the time of death, the Registrar-General, India has evolved over the last decade a system of lay-reporting of cause of death, called the 'Model Registration System'. This system now covers only a few PHCs but has yielded a consistent set of data. It is time that the data thrown up by this system are evaluated comprehensively and attempts are made to extend the system to more PHCs. It may be emphasised that in the absence of an idea of rural pattern of morbidity for programme intervention, the mortality data is a proxy indicator and a first approximation. While this system would yield data annually for the

selected PHCs, it is necessary to have also quinquennial morbidity and mortality surveys on a sample basis to give state wise profile of morbidity. In short, the Group recommends a comprehensive health and vital statistics system.

148. The research needs indicated above require to be backed up by a policy regarding research personnel. The demographic training institutes in this country may have to shift the emphasis in training from basic demography to applied demography. For the formulation, implementation and evaluation of the population programmes, the trainees should have an exposure to population-development problems so that they could readily fit into the various tasks of analysing and monitoring population programmes in the different ministries as well as the population research centres who would be increasingly involved in action-oriented and applied research. Also the research personnel already working in various institutions dealing with population matters should have a periodic reorientation training so that they appreciate the current research needs and use the latest tools of analysis. At present the research carried out by the Population Research Centres falls into a three-tier pattern:

- (i) research relevant to the national programme

- (ii) research focussing on state/regional level problems, and
- (iii) research based on the nature of expertise available in the centre.

149. The Working Group considers this to be a sound approach and would like to emphasize that research projects should be formulated in such a manner as to bring out the programme implications of the findings. Research should respond to the needs of the services and applied research should go in line with the programme.

#### Overview and conclusions

150. The Working Group was appointed to recommend a long term demographic goal for the nation and to suggest measures to bring about better integration between population and development policies with particular reference to, linkages with the minimum needs programme which would make fertility control more popular and effective.

151. We have interpreted population policy in broader terms to mean ensuring to every citizen a quality of life commensurate with his dignity and needs of the nation. It is for this purpose, that we have to plan our population, its distribution, effective mobilisation, and utilisation.

152. We have basically recommended that we should move as quickly as possible towards the replacement level of population. We have spelt out this long term demographic goal as realisation of a Net Reproduction Rate of One by the year 2001 A.D. This means basically moving towards a two child family norm. We have suggested an operational programme necessary to achieve this goal both at the national and the State level. We have identified both the population-influencing policies such as improved health care, better water supply and nutrition which reduce mortality, specially infant-mortality, and population-responsive policies such as education and employment. We have pointed out that linkages have a high degree of relevance when population and development goals are synergistic. We have cited a good example of such synergism in the goal of Net Reproduction Rate of One by the year 2001 and the co-terminus goal of Health for All by the year 2000. We have recommended that such long term goals need to be worked out for the priority programmes with appropriate 5-year phasing.

153. We are quite clear that the task before the nation is not at all an easy one. Even the goal of Net Reproduction Rate of One will not be easy to achieve unless we launch a massive programme of socio-economic development and fertility control immediately.

154. We agree with the declared state policy that coercion of any kind in the programme will be counter-productive. Our efforts must, therefore, be directed essentially at the education and motivation of the people towards the small family norm. Neither of these objectives are easy. Present educational tools are inadequate. And motivation is far too complex a socio-economic and psychological phenomenon. We have, therefore, suggested acceptance of the complexity of the task ahead without seeking short-cuts of any kind and recognition of the fact that population control is not the function of the Department of Health and Family Welfare alone whether at the national or at the state level but of the entire government apparatus and the society itself. The principal task is, therefore, of raising the level of consciousness of the people about the need for population control.

155. Our major concern is with the entire delivery system not only of the official family planning programme but also of those socio-economic programmes which have a direct bearing on people's motivation such as health, education, water supply, nutrition etc. The delivery system must, therefore, be urgently developed whether through the official or non-official agencies or both.

156. While we have not worked out the detailed investment implications of our recommendation in the various social and economic programmes as well as in the health and family welfare activities, we are quite aware that these implications will be enormous. They call for a serious thought on the entire allocation strategy of investment and the greater mobilisation of the peoples' own effort.

157. We are quite clear that without the closest involvement of the people in this programme, whether through their representative institutions, voluntary groups, local organisations etc., the task will be more difficult of fulfillment. We have fortunately sufficient evidence within the country that given the political will and the support of the people, and careful planning and organisation, the problem is amenable to solution.

158. We have, therefore, suggested institutional framework at the highest level in the Planning Commission and in the Government of India to bring about a better integration between allocational decisions and implementation at all levels. We have also suggested a disaggregate communication strategy and a wide range of bio-medical and socio-economic research to support the population control

programme. We have also highlighted the need for an extensive data base and comprehensive health information system.

159. We are, in brief, convinced that a sound population policy would not be meaningful unless it has an impact on the mass of the population through improvements in their conditions of life that can bring about a transition from high to low fertility and mortality. We strongly urge that the recommendations we have made should be debated widely and used to evolve a national consensus and thereafter a concrete plan of action suited to the needs and requirements of each part of the country.



# ANNEXURE

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Note: These tables refer to para 51 of the Report. In tables 1.2, 1.3, 2.2, 2.3, 3.2 and 3.3, NRR is given in 3 digits and 100 would mean NRR equal to 1.00.

Table 1.1 : Assumptions on Demographic Parameters  
for India and States

High Priority Sterilisation

States	1980-81					1981-82				
	CBR	CDR	$e_{0M}^0$	$e_{0F}^0$	IMR	CBR	CDR	$e_{0M}^0$	$e_{0F}^0$	IMR
Andhra Pradesh	30.4	13.5	52.5	52.2	73	29.8	13.2	52.0	52.8	69
Assam	42.7	10.7	60.2	57.9	128	42.9	10.5	60.6	58.4	125
Bihar	39.8	15.7	49.9	48.4	117	39.8	15.3	50.4	49.0	114
Gujarat	30.1	11.0	55.8	56.2	73	27.9	10.7	56.3	56.7	69
Haryana	29.8	11.3	55.4	54.6	102	29.0	11.1	55.9	55.2	96
Himachal Pradesh	28.4	11.4	57.1	56.2	100	28.2	11.2	57.5	56.7	95
Jammu & Kashmir	36.0	10.9	57.1	56.2	53	35.8	10.7	57.5	56.7	51
Karnataka	32.7	12.4	54.4	53.9	81	31.8	12.1	54.9	54.4	79
Kerala	27.9	7.6	65.3	64.5	48	26.3	7.5	65.6	64.8	46
Madhya Pradesh	33.7	12.9	54.1	53.0	119	33.4	12.7	54.6	53.5	115
Maharashtra	28.4	11.2	56.1	56.5	74	27.3	11.0	56.6	51.0	70
Orissa	33.5	13.5	53.7	51.8	98	32.7	13.2	54.2	52.4	95
Punjab	33.8	11.4	57.1	56.2	101	33.1	11.2	57.5	56.7	95
Rajasthan	37.1	11.1	58.2	57.3	128	36.8	10.9	58.6	57.8	125
Tamil Nadu	27.2	14.1	51.9	51.5	98	27.1	13.9	52.4	52.1	92
Uttar Pradesh	37.3	17.1	48.0	47.3	166	37.2	16.8	48.5	47.9	162
West Bengal	33.9	12.0	56.1	54.1	95	33.5	11.8	56.6	54.7	92
All India	33.1	13.2	53.4	52.4	125	32.5	12.9	53.9	53.0	121

Table 1.1(Contd)

States	1985-86					1990-91				
	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR
Andhra Pradesh	27.0	12.0	55.2	55.2	55	23.2	10.7	58.0	58.2	41
Assam	36.0	8.9	62.4	60.6	109	29.6	7.3	64.7	63.4	90
Bihar	36.2	13.6	52.6	51.6	104	31.6	13.8	55.4	54.9	90
Gujarat	25.9	12.0	58.3	58.7	55	23.2	10.0	60.8	61.2	41
Haryana	26.8	10.1	57.9	57.6	76	23.5	9.0	60.4	60.6	57
Himachal Pradesh	25.3	10.3	59.3	58.9	75	22.0	9.3	61.6	61.7	56
Jammu & Kashmir	32.4	9.7	59.3	58.9	46	28.7	8.6	61.6	61.7	40
Karnataka	29.2	10.9	56.9	56.6	69	25.7	9.7	59.4	59.4	57
Kerala	23.3	7.1	66.8	66.2	36	20.0	6.8	68.3	68.0	27
Madhya Pradesh	30.4	11.5	56.6	55.7	101	26.2	10.2	59.1	58.5	83
Maharashtra	25.3	10.2	58.6	59.0	55	22.4	9.4	61.1	61.5	41
Orissa	29.8	11.9	56.2	54.8	83	26.0	10.5	58.7	57.8	69
Punjab	27.2	9.8	59.3	58.9	76	21.5	8.6	61.6	61.7	57
Rajasthan	32.9	9.7	60.4	60.0	113	28.8	8.4	62.7	62.8	98
Tamil Nadu	25.5	12.9	54.6	54.5	73	22.4	11.8	57.4	57.5	55
Uttar Pradesh	34.0	15.1	50.7	50.3	146	29.6	13.1	53.5	53.3	127
West Bengal	29.7	10.6	58.6	57.1	81	25.3	9.2	61.1	60.1	66
All India:	29.6	11.8	55.9	55.2	106	26.0	10.4	58.4	57.9	87

Table 1.1 (concluded)

States	1995-96					2000-01				
	GBR	CDR	GM	GF	IMR	GBR	CDR	GM	GF	IMR
Andhra Pradesh	21.6	9.7	60.7	61.2	31	20.4	8.8	63.5	64.2	23
Assam	23.7	6.2	66.9	66.1	70	22.3	5.7	69.2	68.9	51
Bihar	26.9	10.4	58.1	58.1	76	22.7	8.5	60.9	61.4	63
Gujarat	22.2	8.3	63.3	63.7	31	20.6	7.6	65.8	66.2	23
Haryana	21.7	8.2	62.9	63.6	43	19.2	7.5	65.4	66.6	32
Himachal Pradesh	21.0	8.7	63.8	64.4	42	19.6	8.2	66.1	67.2	32
Jammu & Kashmir	24.6	7.7	63.8	64.4	24	21.0	7.0	66.1	67.2	28
Karnataka	22.1	8.7	61.9	62.1	44	20.7	8.1	64.4	64.9	32
Kerala	19.6	6.7	69.8	69.7	20	18.8	6.6	71.3	71.5	15
Madhya Pradesh	22.1	9.1	61.6	61.2	65	20.6	8.4	64.1	64.0	47
Maharashtra	20.7	8.7	63.6	64.0	31	19.2	8.2	66.1	66.5	23
Orissa	23.3	9.3	61.2	60.8	54	21.0	8.6	63.7	63.8	39
Punjab	20.4	7.9	63.8	64.4	42	20.2	7.5	66.1	67.2	32
Rajasthan	24.9	7.4	64.9	65.5	83	21.2	6.6	67.2	68.3	69
Tamil Nadu	20.4	10.8	60.1	60.5	41	19.0	9.9	62.9	63.5	31
Uttar Pradesh	25.3	11.4	56.2	56.3	108	21.9	10.1	59.0	59.3	89
West Bengal	21.4	8.3	63.6	63.1	52	20.3	7.7	66.1	66.1	38
All India:	22.1	9.4	60.9	60.7	68	20.5	8.7	63.4	63.4	49

Table 1.2: Desired Levels of NRR and Future Family Planning Targets to Achieve NRR(100) by 2001.

High Priority Sterilization

States	1981-82				
	NRR *	Pop.	Ster.	IUD	CC
Andhra Pradesh	132	52,795	248,478	99,391	149,087
Assam	228	21,934	128,390	51,356	77,034
Bihar	186	75,290	321,334	128,534	192,800
Gujarat	130	33,256	269,540	107,816	161,724
Haryana	125	8,928	111,415	44,566	66,849
Himachal Pradesh	137	4,276	23,573	9,429	14,144
Jammu & Kashmir	197	6,113	27,020	10,808	16,212
Karnataka	145	36,894	235,727	94,291	141,436
Kerala	136	27,273	186,210	74,484	111,726
Madhya Pradesh	152	51,527	253,815	101,526	152,289
Maharashtra	121	59,979	336,838	134,735	202,103
Orissa	145	27,140	152,407	60,963	91,444
Punjab	163	17,408	179,983	71,993	107,990
Rajasthan	186	35,128	206,373	82,549	123,824
Tamil Nadu	118	45,496	252,629	101,051	151,577
Uttar Pradesh	163	108,137	685,537	274,215	411,322
West Bengal	159	55,102	288,803	115,521	173,282
All-India:	148	682,103	4662,162	1864,865	2797,297

\* NRR is expressed for 100 women.

Table 1.2(Contd.)

States	1985-86				
	NRR	Pop.	Stor.	IUD	CC
Andhra Pradesh	118	56,255	393,176	157,270	235,905
Ass	183	24,712	203,556	81,422	122,134
Bihar	164	82,714	524,987	209,995	314,992
Gujarat	117	35,523	297,023	118,809	178,214
Haryana	114	9,572	72,053	28,821	43,232
Himachal Pradesh	121	4,559	31,356	12,542	18,814
Jammu & Kashmir	172	6,726	39,918	15,967	23,951
Karnataka	131	39,814	285,838	114,335	171,503
Kerala	119	29,269	224,164	89,665	134,498
Madhya Pradesh	136	55,789	380,129	152,052	228,077
Maharashtra	112	63,883	454,257	181,703	272,554
Orissa	131	29,251	212,600	85,040	127,560
Punjab	134	18,853	166,344	66,537	99,806
Rajasthan	164	38,750	240,175	96,070	144,105
Tamil Nadu	110	47,908	344,548	137,819	206,729
Uttar Pradesh	148	116,990	679,607	271,843	407,764
West Bengal	141	59,820	437,653	175,061	262,592
<b>All-India:</b>	134	735,235	5073,696	2029,478	3044,217

Table 1.2: (Contd.)

States	1990-91				
	NIR	Pop.	Ster.	IUD	CC
Andhra Pradesh	103	60,308	352,478	180,991	271,487
Assam	139	27,974	253,815	101,526	152,289
Bihar	141	91,991	760,350	304,140	456,210
Gujarat	103	37,700	335,780	134,312	201,468
Haryana	102	10,354	78,576	31,430	47,145
Himachal Pradesh	103	4,890	36,879	14,752	22,127
Jammu & Kashmir	145	7,490	53,335	21,334	32,001
Karnataka	116	43,391	343,362	137,345	206,017
Kerala	103	31,533	213,193	85,277	127,916
Madhya Pradesh	118	60,931	459,594	183,838	275,757
Maharashtra	102	68,589	499,920	199,968	299,952
Orissa	116	31,815	246,698	98,679	148,019
Punjab	105	20,363	182,652	73,061	109,591
Rajasthan	141	43,215	303,332	121,333	181,999
Tamil Nadu	102	50,814	396,141	158,456	237,684
Uttar Pradesh	131	127,924	869,375	347,750	521,625
West Bengal	121	65,363	521,269	208,508	312,761
All-India	117	799,815	6122,259	2448,904	3673,356

Table 1.2(Contd.)

States	1995-96				
	NPR	Pop.	Ster.	IUD	CC
Andhra Pradesh	100	64,051	491,025	196,410	294,615
Assam	106	30,943	300,812	120,325	180,487
Bihar	120	99,440	860,414	344,166	516,249
Gujarat	100	40,392	322,391	128,956	193,435
Haryana	100	11,102	92,215	36,886	55,329
Himachal Pradesh	100	5,200	37,583	15,033	22,550
Jammu & Kashmir	123	8,223	65,752	26,301	39,451
Karnataka	103	46,727	385,466	154,187	231,280
Kerala	100	33,657	241,361	96,544	144,817
Madhya Pradesh	103	65,594	506,443	202,577	303,866
Maharashtra	100	72,984	559,816	223,926	335,889
Orissa	103	34,186	268,937	107,575	161,362
Punjab	100	21,657	154,187	61,675	92,512
Rajasthan	121	47,528	361,152	144,461	216,691
Tamil Nadu	100	53,441	397,327	158,931	238,396
Uttar Pradesh	116	138,141	1004,585	401,834	602,751
West Bengal	103	70,361	583,537	233,415	350,122
All-India	103	859,324	6877,676	2751,070	4126,606



States	2000-01				
	MFR	Pop.	Stor.	IUD	CC
Andhra Pradesh	100	67,910	512,374	204,949	307,424
Assam	100	33,622	283,021	113,209	169,813
Bihar	103	107,507	882,259	352,904	529,356
Gujarat	100	43,215	343,179	137,272	205,907
Haryana	100	11,829	91,400	36,560	54,850
Himachal Pradesh	100	5,521	40,103	16,041	24,062
Jammu & Kashmir	103	8,890	73,683	29,473	44,210
Karnataka	100	49,825	383,391	153,356	230,034
Kerala	100	35,840	259,152	103,661	155,491
Madhya Pradesh	100	69,777	511,781	204,712	307,068
Maharashtra	100	77,301	565,746	226,298	339,448
Orissa	100	36,395	281,390	112,556	168,834
Punjab	100	23,047	169,457	67,783	101,674
Rajasthan	103	51,534	404,443	161,777	242,666
Tamil Nadu	100	55,976	391,990	156,796	235,194
Uttar Pradesh	103	147,340	1079,306	431,722	647,583
West Bengal	100	74,949	553,885	221,554	332,331
All-India	100	913,027	6719,828	2687,931	4031,897

Table 1.3 : Desired Levels of NRR and Future Family Planning Targets per 1000 population

States	High Priority Sterilisation			
	1931-82			
	Targets per 1000 Popn.			
	NRR	St.	IUD	CC
Andhra Pradesh	132	4.71	1.88	2.82
Assam	228	5.85	2.34	3.51
Bihar	186	4.27	1.71	2.56
Gujarat	130	8.10	3.24	4.86
Haryana	125	12.48	4.99	7.49
Himachal Pradesh	137	5.51	2.21	3.31
Jammu & Kashmir	197	4.42	1.77	2.65
Karnataka	145	6.39	2.56	3.83
Kerala	136	6.46	2.58	3.87
Madhya Pradesh	152	4.93	1.97	2.96
Maharashtra	121	5.62	2.25	3.37
Orissa	145	5.62	2.25	3.37
Punjab	163	10.34	4.14	6.20
Rajasthan	186	5.87	2.35	3.52
Tamil Nadu	118	5.55	2.22	3.33
Uttar Pradesh	163	6.34	2.54	3.80
West Bengal	159	5.24	2.10	3.14
All-India	148	6.84	2.73	4.10

Table 1.3 (Contd.)

States	1985-86				1990-91			
	Targets for 1000 Popn.				Targets per 1000 Popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
Andhra Pradesh	118	6.99	2.80	4.19	103	7.50	3.00	4.50
Assam	183	8.24	3.29	4.94	139	9.07	3.63	5.44
Bihar	164	6.35	2.54	3.81	141	8.27	3.31	4.96
Gujarat	117	8.36	3.34	5.02	103	8.91	3.56	5.34
Haryana	114	7.53	3.01	4.52	102	7.59	3.04	4.55
Himachal Pradesh	121	6.88	2.75	4.13	103	7.54	3.02	4.52
Jammu & Kashmir	172	5.93	2.37	3.56	145	7.12	2.85	4.27
Karnataka	131	7.18	2.87	4.31	116	7.91	3.17	4.75
Kerala	119	7.66	3.06	4.60	103	6.76	2.70	4.06
Madhya Pradesh	136	6.81	2.73	4.09	118	7.64	3.02	4.53
Maharashtra	112	7.11	2.84	4.27	102	7.29	2.92	4.37
Orissa	131	7.27	2.91	4.36	116	7.75	3.10	4.65
Punjab	134	8.82	3.53	5.29	105	8.97	3.59	5.38
Rajasthan	164	6.20	2.48	3.72	141	7.02	2.81	4.21
Tamil Nadu	110	7.19	2.88	4.31	102	7.80	3.12	4.68
Uttar Pradesh	148	5.81	2.32	3.49	131	6.80	2.72	4.08
West Bengal	141	7.32	2.93	4.39	121	7.97	3.19	4.78
All India:	134	6.90	2.76	4.14	117	7.65	3.06	4.59

Table 1.3 (Concluded)

States	1995-96				2000-01			
	Targets per 1000 Popn.				Targets per 1000 popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
Andhra Pradesh	100	7.67	3.07	4.60	100	7.54	3.02	4.53
Assam	106	9.72	3.89	5.83	100	8.42	3.37	5.05
Bihar	120	8.65	3.46	5.19	103	8.21	3.28	4.92
Gujarat	100	7.98	3.19	4.79	100	7.94	3.18	4.76
Haryana	100	8.31	3.22	4.98	100	7.73	3.09	4.64
Himachal Pradesh	100	7.23	2.89	4.34	100	7.26	2.91	4.36
Jammu & Kashmir	123	8.00	3.20	4.80	103	8.29	3.32	4.97
Karnataka	103	8.25	3.30	4.95	100	7.69	3.08	4.62
Kerala	100	7.17	2.87	4.30	100	7.23	2.89	4.34
Madhya Pradesh	103	7.72	3.09	4.63	100	7.33	2.93	4.40
Maharashtra	100	7.67	3.07	4.60	100	7.32	2.93	4.39
Orissa	103	7.87	3.15	4.72	100	7.73	3.09	4.64
Punjab	100	7.12	2.85	4.27	100	7.35	2.94	4.41
Rajasthan	121	7.60	3.04	4.56	103	7.85	3.14	4.71
Tamil Nadu	100	7.43	2.97	4.46	100	7.00	2.80	4.20
Uttar Pradesh	116	7.27	2.91	4.36	103	7.33	2.93	4.40
West Bengal	103	8.29	3.32	4.98	100	7.39	2.96	4.43
All India:	103	8.00	3.20	4.80	100	7.36	2.94	4.42

Table 2.1: Assumptions on Demographic Parameters  
for India and States.

States	Medium Priority Stabilization									
	1980-81					1981-82				
	CBR	CDR	$e_{0M}^c$	$e_{0F}^c$	IMR	CBR	CDR	$e_{0M}^c$	$e_{0F}^c$	IMR
Andhra Pradesh	30.4	13.5	52.5	52.2	73	29.8	13.2	53.0	52.8	69
Assam	42.7	10.7	60.2	57.9	128	42.9	10.5	60.6	58.4	125
Bihar	39.8	15.7	49.9	48.4	117	39.8	15.3	50.4	49.0	114
Gujarat	30.1	11.0	55.8	56.2	73	27.9	10.7	56.3	56.7	69
Haryana	29.8	11.3	55.4	54.6	102	29.0	11.1	55.9	55.2	96
Himachal Pradesh	28.4	11.4	57.1	56.2	100	28.2	11.2	57.5	56.7	95
Jammu & Kashmir	36.0	10.9	57.1	56.2	53	35.8	10.7	57.5	56.7	51
Karnataka	32.7	12.4	54.4	53.9	81	31.8	12.1	54.9	54.4	79
Kerala	27.9	7.6	65.3	64.5	48	26.5	7.5	65.6	64.8	46
Madhya Pradesh	33.7	12.9	54.1	53.0	119	33.4	12.7	54.6	53.5	115
Maharashtra	28.4	11.2	56.1	56.5	74	27.3	11.0	56.6	57.0	70
Orissa	33.5	13.5	53.7	51.8	98	32.7	13.2	54.2	52.4	95
Punjab	33.8	11.4	57.1	56.2	101	33.1	11.2	57.5	56.7	95
Rajasthan	37.1	11.1	58.2	57.3	128	36.8	10.9	58.6	57.8	125
Tamil Nadu	27.2	14.1	51.9	51.5	98	27.1	13.9	52.4	52.1	92
Uttar Pradesh	37.3	17.1	48.0	47.3	166	37.2	16.8	48.5	47.9	162
West Bengal	33.9	12.0	56.1	54.1	95	33.5	11.8	56.6	54.7	92
All India	33.1	13.2	53.4	52.4	125	32.5	12.9	53.9	53.0	121

States	1985-86					1990-91				
	CER	GDR	e <sub>0</sub> M	e <sub>0</sub> F	IMR	CER	GDR	e <sub>0</sub> M	e <sub>0</sub> F	IMR
Andhra Pradesh	26.9	12.0	55.2	55.2	55	23.1	10.7	58.0	58.2	41
Assam	35.8	8.9	62.4	60.6	109	29.3	7.3	64.7	63.4	90
Bihar	36.1	13.6	52.6	51.6	104	31.5	13.7	55.4	54.9	90
Gujarat	25.8	12.0	58.3	58.7	55	23.1	10.0	60.8	61.2	41
Haryana	26.7	10.1	57.9	57.6	76	23.4	9.0	60.4	60.6	57
Himachal Pradesh	25.2	10.3	59.3	58.9	75	21.9	9.3	61.6	61.7	56
Jammu & Kashmir	32.3	9.7	59.3	58.9	46	28.5	8.6	61.6	61.7	40
Karnataka	29.1	10.9	56.9	56.6	69	25.6	9.7	59.4	59.4	57
Kerala	23.3	7.1	66.8	66.2	36	19.9	6.8	68.3	68.0	27
Madhya Pradesh	30.3	11.5	56.6	55.7	101	26.1	10.1	59.1	58.5	83
Maharashtra	25.3	10.2	58.6	59.0	55	22.3	9.4	61.1	61.5	41
Orissa	29.7	11.9	56.2	54.8	83	25.9	10.5	58.7	57.8	69
Punjab	27.1	9.8	59.3	58.9	76	21.4	8.6	61.6	61.7	57
Rajasthan	32.8	9.7	60.4	60.0	113	28.6	8.4	62.7	62.8	98
Tamil Nadu	25.4	12.9	54.6	54.5	73	22.4	11.8	57.4	57.5	55
Uttar Pradesh	33.9	15.1	50.7	50.3	146	29.6	13.1	53.5	53.3	127
West Bengal	29.6	10.5	58.6	57.1	81	25.2	9.2	61.1	60.1	66
All-India:	29.5	11.7	55.9	55.2	106	25.9	10.4	58.4	57.9	87

Table 2.1 (Concluded)

	1995-96					2000-01				
	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR
Andhra Pradesh	21.6	9.7	60.7	61.2	31	20.4	8.8	63.5	64.2	23
Assam	23.5	6.2	66.9	66.1	70	22.2	5.7	69.2	68.9	51
Bihar	26.8	10.4	58.1	58.1	76	22.6	8.5	60.9	61.4	63
Gujarat	22.2	8.3	63.3	63.7	31	20.6	7.7	65.8	66.2	23
Haryana	21.6	8.2	62.9	63.6	43	19.2	7.5	65.4	66.6	32
Himachal Pradesh	21.0	8.7	63.8	64.4	42	19.7	8.2	66.1	67.2	32
Jammu & Kashmir	24.5	7.7	63.8	64.4	34	20.9	7.0	66.1	67.2	28
Karnataka	22.1	8.7	61.9	62.1	44	20.7	8.1	64.4	64.9	32
Kerala	19.6	6.7	69.8	69.7	20	18.8	6.6	71.3	71.5	15
Madhya Pradesh	22.0	9.1	61.6	61.2	65	20.6	8.4	64.1	64.0	47
Maharashtra	20.6	8.7	63.6	64.0	31	19.3	8.2	66.1	66.5	23
Orissa	22.2	9.3	61.2	60.8	54	21.0	8.6	63.7	63.8	39
Punjab	20.3	7.9	63.8	64.4	42	20.1	7.5	66.1	67.2	32
Rajasthan	24.8	7.4	64.9	65.5	83	21.1	6.6	67.2	68.3	69
Tamil Nadu	20.4	10.8	60.1	60.5	41	19.0	9.9	62.9	63.5	31
Uttar Pradesh	25.3	11.4	56.2	56.3	108	21.8	10.1	59.0	59.3	89
West Bengal	21.3	8.3	63.6	63.1	52	20.3	7.7	66.1	66.1	38
All-India	22.1	9.4	60.9	60.7	68	20.5	8.7	63.4	63.4	49

Table 2.2 : Desired levels of NRR and Future Family Planning Targets to Achieve NRR(100) by 2001.

Medium Priority Sterilisation

States	1981-82				
	NRR	Pop.	Str.	IUD	CC
Andhra Pradesh	132	52,795	172,215	172,215	177,433
Assam	228	21,934	90,902	90,902	93,656
Bihar	186	75,290	226,963	226,963	233,841
Gujarāt	130	33,256	190,221	190,221	195,986
Haryana	125	8,928	78,964	78,964	81,357
Himachal Pradesh	137	4,276	16,561	16,561	17,063
Jammu & Kashmir	197	6,113	18,983	18,983	19,558
Karnataka	145	36,894	162,821	162,821	167,755
Kerala	136	27,273	147,948	147,948	152,431
Madhya Pradesh	152	51,527	180,042	180,042	185,498
Maharashtra	121	59,979	234,055	234,055	241,148
Orissa	145	27,140	105,481	105,481	108,678
Punjab	163	17,408	126,323	126,323	130,151
Rajasthan	186	35,128	145,404	145,404	149,810
Tamil Nadu	118	45,496	174,563	174,563	179,853
Uttar Pradesh	163	108,137	483,766	483,766	498,426
West Bengal	159	55,102	203,918	203,918	210,097
All-India	148	682,103 <sup>3</sup>	3,285,387	3,285,387	3,384,944



Table 2.2(Contd.)

States	1985-86				
	NRR	Pop.	Sur.	IUD	CC
Andhra Pradesh	118	56,247	354,605	354,605	365,351
Assam	183	24,704	188,555	188,555	191,269
Bihar	164	82,699	481,367	481,367	495,954
Gujarat	117	35,516	272,077	272,077	280,322
Haryana	114	9,569	70,011	70,011	72,133
Himachal Pradesh	121	4,559	28,988	28,988	29,866
Jammu & Kashmir	172	6,725	36,645	36,645	37,755
Karnataka	131	39,808	259,105	259,105	266,956
Kerala	119	29,263	205,875	205,875	212,113
Madhya Pradesh	136	55,780	350,691	350,691	361,318
Maharashtra	112	53,875	414,880	414,880	427,453
Orissa	131	29,247	192,567	192,567	198,402
Punjab	134	18,850	156,265	156,265	161,000
Rajasthan	164	38,744	223,096	223,096	229,857
Tamil Nadu	110	47,902	310,769	310,769	320,186
Uttar Pradesh	148	116,970	632,497	632,497	651,663
West Bengal	141	59,810	402,356	402,356	414,548
All-India	134	735,116	4,717,860	4,717,860	4,860,826

Table 2.2(Contd.)

States	1990-91				
	NRR	Pop.	Str.	IUD	CC
Andhra Pradesh	103	60,273	425,839	425,839	438,744
Assam	139	27,934	242,274	242,274	249,616
Bihar	141	91,912	695,308	695,308	716,378
Gujarat	103	37,671	328,353	328,353	338,303
Haryana	102	10,345	75,931	75,931	78,232
Himachal Pradesh	103	4,887	35,054	35,054	36,117
Jammu & Kashmir	145	7,484	49,952	49,952	51,466
Karnataka	116	43,363	321,337	321,337	331,074
Kerala	103	31,514	212,333	212,333	218,767
Madhya Pradesh	118	60,888	435,624	435,624	448,825
Maharashtra	102	68,554	475,938	475,938	490,361
Orissa	116	31,796	232,490	232,490	239,535
Punjab	105	20,350	174,954	174,954	180,256
Rajasthan	141	43,188	285,524	285,524	294,176
Tamil Nadu	102	50,790	370,653	370,653	381,884
Uttar Pradesh	131	127,845	810,974	810,974	835,549
West Bengal	121	65,319	495,117	495,117	510,120
All-India	117	799,290	5,789,425	5,789,425	5,964,862

Table 2.2(Contd.)

	1995-96				
	NRR	Pop.	Str.	IUD	CC
Andhra Pradesh	100	63,991	464,979	464,979	479,069
Assam	106	30,863	288,459	288,459	297,200
Bihar	120	99,293	834,834	834,834	860,132
Gujarat	100	40,341	311,144	311,144	320,573
Haryana	100	11,088	88,847	88,847	91,539
Himachal Pradesh	100	5,195	35,837	35,837	36,923
Jammu & Kashmir	123	8,212	62,183	62,183	64,067
Karnataka	103	46,678	366,739	366,739	377,852
Kerala	100	33,625	229,358	229,358	236,309
Madhya Pradesh	103	65,520	485,332	485,332	500,039
Maharashtra	100	72,927	534,648	534,648	550,849
Orissa	103	34,151	257,343	257,348	265,142
Punjab	100	21,636	150,101	150,101	154,649
Rajasthan	121	47,475	343,255	343,255	353,656
Tamil Nadu	100	53,409	378,089	378,089	389,546
Uttar Pradesh	116	138,018	948,745	948,745	977,495
West Bengal	103	70,286	561,263	561,263	578,271
<b>All India</b>	<b>103</b>	<b>858,420</b>	<b>6,563,333</b>	<b>6,563,333</b>	<b>6,762,221</b>

Table 2.2 (concluded)

States	2000-01				
	NRR	Pop.	Str.	IUD	CC
Andhra Pradesh	100	67,839	491,203	491,203	506,088
Assam	100	33,514	275,935	275,935	284,296
Bihar	103	107,314	852,973	852,973	878,820
Gujarat	100	43,153	332,073	332,073	342,136
Haryana	100	11,812	88,994	88,994	91,691
Himachal Pradesh	100	5,515	38,455	38,455	39,620
Jammu & Kashmir	103	8,874	70,941	70,941	73,090
Karnataka	100	49,761	370,261	370,261	381,481
Kerala	100	35,901	247,167	247,167	254,657
Madhya Pradesh	100	69,688	494,334	494,334	509,314
Maharashtra	100	77,237	547,564	547,564	564,157
Orissa	100	36,349	271,434	271,434	279,659
Punjab	100	23,020	163,799	163,799	168,763
Rajasthan	103	51,456	389,048	389,048	400,838
Tamil Nadu	100	55,945	377,698	377,698	389,143
Uttar Pradesh	103	147,193	1,033,287	1,033,287	1,064,599
West Bengal	100	74,849	538,953	538,953	555,285
All-India	100	911,933	6,503,801	6,503,801	6,700,886

Table 2.3 ; Desired levels of NRR and Future Family Planning Targets for 1000 Population

	<u>Medium Priority Sterilization</u>			
	<u>1981-82</u>			
	<u>Targets per 1000 Popp.</u>			
	<u>NRR</u>	<u>St.</u>	<u>IUD</u>	<u>CC</u>
Andhra Pradesh	132	3.26	3.26	3.36
Assam	228	4.14	4.14	4.27
Bihar	186	3.01	3.01	3.11
Gujarat	130	5.72	5.72	5.89
Haryana	125	8.84	8.84	9.11
Himachal Pradesh	137	3.87	3.87	3.99
Jammu & Kashmir	197	3.11	3.11	3.20
Karnataka	145	4.41	4.41	4.55
Kerala	136	5.42	5.42	5.59
Madhya Pradesh	152	3.49	3.49	3.60
Maharashtra	121	3.90	3.90	4.02
Orissa	145	3.89	3.89	4.00
Punjab	163	7.26	7.26	7.47
Rajasthan	186	4.14	4.14	4.26
Tamil Nadu	118	3.84	3.84	3.95
Uttar Pradesh	163	4.47	4.47	4.61
West Bengal	159	3.70	3.70	3.81
All-India:	148	4.82	4.82	4.96

Table 2.3 (Contd.)

States	1985-86				1990-91			
	Targets per 1000 Popn.				Targets per 1000 Popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
1.	2.	3.	4.	5.	6.	7.	8.	9.
Andhra Pradesh	118	6.30	6.30	6.50	103	7.07	7.07	7.28
Assam	183	7.63	7.63	7.86	139	8.67	8.67	8.94
Bihar	164	5.82	5.82	6.00	141	7.56	7.56	7.79
Gujarat	117	7.66	7.66	7.89	103	8.72	8.72	8.98
Haryana	114	7.32	7.32	7.54	102	7.34	7.34	7.56
Himachal Pradesh	121	6.36	6.36	6.55	103	7.17	7.17	7.39
Jammu & Kashmir	172	5.45	5.45	5.64	145	6.67	6.67	6.88
Karnataka	131	6.51	6.51	6.71	116	7.41	7.41	7.63
Kerala	119	7.04	7.04	7.25	103	6.74	6.74	6.94
Madhya Pradesh	136	6.29	6.29	6.48	118	7.15	7.15	7.37
Maharashtra	112	6.50	6.50	6.69	102	6.94	6.94	7.15
Orissa	131	6.58	6.58	6.78	116	7.31	7.31	7.53
Punjab	134	8.29	8.29	8.54	105	8.60	8.60	8.86
Rajasthan	164	5.76	5.76	5.93	141	6.61	6.61	6.81
Tamil Nadu	110	6.49	6.49	6.68	102	6.30	7.30	7.52
Uttar Pradesh	148	5.41	5.41	5.57	131	6.34	6.34	6.54
West Bengal	141	6.73	6.73	6.93	121	7.58	7.58	7.81
All India:	134	6.42	6.42	6.61	117	7.24	7.24	7.46

Table 2.3 (Concluded)

States	1995-96				2000-01			
	Targets per 1000 Popn.				Targets per 1000 Popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
Andhra Pradesh	100	7.27	7.27	7.49	100	7.24	7.24	7.46
Assam	106	9.35	9.35	9.63	100	8.23	8.23	8.48
Bihar	120	8.41	8.41	8.66	103	7.95	7.95	8.19
Gujarat	100	7.71	7.71	7.95	100	7.70	7.70	7.93
Haryana	100	8.01	8.01	8.26	100	7.53	7.53	7.76
Himachal Pradesh	100	6.90	6.90	7.11	100	6.97	6.97	7.18
Jammu & Kashmir	123	7.57	7.57	7.80	103	7.99	7.99	8.24
Karnataka	103	7.86	7.86	8.09	100	7.44	7.44	7.67
Kerala	100	6.82	6.82	7.03	100	6.90	6.90	7.11
Madhya Pradesh	103	7.41	7.41	7.63	100	7.09	7.09	7.31
Maharashtra	100	7.33	7.33	7.55	100	7.09	7.09	7.30
Orissa	103	7.54	7.54	7.76	100	7.47	7.47	7.69
Punjab	100	6.94	6.94	7.15	100	7.12	7.12	7.33
Rajasthan	121	7.23	7.23	7.45	103	7.56	7.56	7.79
Tamil Nadu	100	7.08	7.08	7.29	100	6.75	6.75	6.96
Uttar Pradesh	116	6.87	6.87	7.08	103	7.02	7.02	7.23
West Bengal	103	7.99	7.99	8.23	100	7.20	7.20	7.42
All-India	103	7.65	7.65	7.88	100	7.13	7.13	7.35

Table 3.1: Assumptions on Demographic Parameter  
for India and StatesLow Priority Sterilisation

States	1980-81					1981-82				
	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR	CBR	CDR	e <sub>0</sub> <sup>M</sup>	e <sub>0</sub> <sup>F</sup>	IMR
Andhra Pradesh	30.4	13.5	52.5	52.2	73	29.8	13.2	53.0	52.8	69
Assam	42.7	10.7	60.2	57.9	128	42.9	10.5	60.6	58.4	125
Bihar	39.8	15.7	49.9	48.4	117	39.8	15.3	50.4	49.0	114
Gujarat	30.1	11.0	55.8	56.2	73	27.9	10.7	56.3	56.7	69
Haryana	29.8	11.3	55.4	54.6	102	29.0	11.1	55.9	55.2	96
Himachal Pradesh	28.4	11.4	57.1	56.2	100	28.2	11.2	57.5	56.7	95
Jammu & Kashmir	36.0	10.9	57.1	56.2	53	35.8	10.7	57.5	56.7	51
Karnataka	32.7	12.4	54.4	53.9	81	31.8	12.1	54.9	54.4	79
Kerala	27.9	7.6	65.3	64.5	48	26.3	7.5	65.6	64.8	46
Madhya Pradesh	33.7	12.9	54.1	53.0	119	33.4	12.7	54.6	53.5	115
Maharashtra	28.4	11.2	56.1	56.5	74	27.3	11.0	56.6	57.0	70
Orissa	33.5	13.5	53.7	51.8	98	32.7	13.2	54.2	52.4	95
Punjab	33.8	11.4	57.1	56.2	101	33.1	11.2	57.5	56.7	95
Rajasthan	37.1	11.1	58.2	57.3	128	36.8	10.9	58.6	57.8	125
Tamil Nadu	27.2	14.1	51.9	51.5	98	27.1	13.9	52.4	52.1	92
Uttar Pradesh	37.3	17.1	48.0	47.3	166	37.2	16.8	48.5	47.9	162
West Bengal	33.9	12.0	56.1	54.1	95	33.5	11.8	56.6	54.7	92
All India	33.1	13.2	53.4	52.4	125	32.5	12.9	53.9	53.0	121



Table 3.1 (Contd.)

	1985-86					1990-91				
	CBR	CDR	e <sup>o</sup> M	e <sup>o</sup> F	IMR	CBR	CDR	e <sup>o</sup> M	e <sup>o</sup> F	IMR
Andhra Pradesh	26.8	12.0	55.2	55.2	55	23.0	10.7	58.0	58.2	41
Assam	35.6	8.8	62.4	60.6	109	28.9	7.3	64.7	63.4	90
Bihar	35.9	13.6	52.6	51.6	104	31.2	13.7	55.4	54.9	90
Gujarat	25.6	12.0	58.3	58.7	55	22.9	10.0	60.8	61.2	41
Haryana	25.5	10.0	57.9	57.6	76	23.3	9.0	60.4	60.6	57
Himachal Pradesh	25.1	10.3	59.3	58.9	75	21.8	9.3	61.6	61.7	56
Jammu & Kashmir	32.2	9.7	59.3	58.9	46	28.3	8.6	61.6	61.7	40
Karnataka	29.0	10.9	56.9	56.6	69	25.4	9.7	59.4	59.4	57
Kerala	23.2	7.1	66.8	66.2	36	19.7	6.8	68.3	68.0	27
Madhya Pradesh	30.1	11.5	56.6	55.7	101	26.0	10.1	59.1	58.5	83
Maharashtra	25.2	10.2	58.6	59.0	55	22.2	9.4	61.1	61.5	41
Orissa	29.6	11.9	56.2	54.8	83	25.7	10.5	58.7	57.8	69
Punjab	27.0	9.8	59.3	58.9	76	21.3	8.6	61.6	61.7	57
Rajasthan	32.7	9.7	60.4	60.0	113	28.5	8.4	62.7	62.8	98
Tamil Nadu	25.3	12.9	54.6	54.5	73	22.3	11.8	57.4	57.5	55
Uttar Pradesh	33.8	15.1	50.7	50.3	146	29.4	13.1	53.5	53.3	127
West Bengal	29.5	10.5	58.6	57.1	81	25.0	9.2	61.1	60.1	66
All-India:	29.4	11.7	55.9	55.2	106	25.7	10.4	58.4	57.9	87

Table 3.1: (Concluded)

States	1995-96					2000-01				
	CBR	CDR	e <sup>CM</sup>	e <sup>OF</sup>	IMR	CBR	CDR	e <sup>CM</sup>	e <sup>OF</sup>	IMR
Andhra Pradesh	21.5	9.7	60.7	61.2	31	20.4	8.9	63.5	64.2	23
Assam	23.2	6.2	66.9	66.1	70	22.1	5.7	69.2	68.9	51
Bihar	26.7	10.4	58.1	58.1	76	22.6	8.6	60.9	61.4	63
Gujarat	22.1	8.3	63.3	63.7	31	20.6	7.7	65.8	66.2	23
Haryana	21.5	8.2	62.9	63.6	43	19.3	7.5	65.4	66.6	32
Himachal Pradesh	20.9	8.7	63.8	64.4	42	19.7	8.2	66.1	67.2	32
Jammu & Kashmir	24.4	7.7	63.8	64.4	34	20.8	7.0	66.1	67.2	28
Karnataka	22.0	8.7	61.9	62.1	44	20.7	8.1	64.4	64.9	32
Kerala	19.5	6.7	69.8	69.7	20	18.8	6.6	71.3	71.5	15
Madhya Pradesh	21.9	9.1	61.6	61.2	65	20.6	8.4	64.1	64.0	47
Maharashtra	20.6	8.7	63.6	64.0	31	19.3	8.2	66.1	66.5	23
Orissa	22.1	9.3	61.2	60.8	54	20.9	8.6	63.7	63.8	39
Punjab	20.3	7.9	63.8	64.4	42	20.1	7.5	66.1	67.2	32
Rajasthan	21.6	7.4	64.9	65.5	23	21.0	6.6	67.2	68.3	69
Tamil Nadu	20.4	10.8	60.1	60.5	41	19.0	10.0	62.9	63.5	31
Uttar Pradesh	25.2	11.4	56.2	56.3	108	21.8	10.1	59.0	59.3	89
West Bengal	21.2	8.3	63.6	63.1	52	20.3	7.7	66.1	66.1	38
All India	22.0	9.4	60.9	60.7	68	20.5	8.7	63.4	63.4	49

**Table 3.2 : Desired Levels of NRR and Future Family Planning Targets to Achieve NRR(100) by 2001.**

Low Priority Sterilisation

States	1981-82				
	NRR	Pop.	Steri.	IUD	CC
Andhra Pradesh	132	52,795	109,354	218,708	218,708
Assam	228	21,934	59,065	118,131	118,131
Bihar	186	75,290	147,137	294,274	294,274
Gujarat	130	33,256	123,178	246,356	246,356
Haryana	125	8,928	51,297	102,593	102,593
Himachal Pradesh	137	4,276	10,674	21,349	21,349
Jammu & Kashmir	197	6,113	12,246	24,492	24,492
Karnataka	145	36,894	103,186	206,373	206,373
Kerala	136	27,273	104,017	208,033	208,033
Madhya Pradesh	152	51,527	116,707	233,415	233,415
Maharashtra	121	59,979	149,205	298,410	298,410
Orissa	145	27,140	67,012	134,024	134,024
Punjab	163	17,408	81,363	162,726	162,726
Rajasthan	186	35,128	94,054	188,108	188,108
Tamil Nadu	118	45,496	110,777	221,554	221,554
Uttar Pradesh	163	108,137	312,643	625,286	625,286
West Bengal	159	55,102	131,889	263,778	263,778
All-India	148	682,103	2,121,932	4,243,864	4,243,864

Table 3.2(Contd.)

States	1985-86				
	NRR	Pop.	Ster.	IUD	CC
Andhra Pradesh	118	56,241	287,736	575,472	575,472
Assam	183	24,696	158,456	316,913	316,913
Bihar	164	82,684	400,540	801,080	801,080
Gujarat	117	35,509	228,175	456,351	456,351
Haryana	114	9,566	62,297	124,595	124,595
Himachal Pradesh	121	4,558	24,284	48,569	48,569
Jammu & Kashmir	172	6,724	30,481	60,963	60,963
Karnataka	131	39,802	211,829	423,657	423,657
Kerala	119	29,258	172,452	344,903	344,903
Madhya Pradesh	136	55,770	293,903	587,807	587,807
Maharashtra	112	63,867	341,582	683,165	683,165
Orissa	131	29,243	157,033	314,066	314,066
Punjab	134	18,847	133,371	266,743	266,743
Rajasthan	164	38,738	188,226	376,452	376,452
Tamil Nadu	110	47,897	252,629	505,257	505,257
Uttar Pradesh	148	116,950	537,044	1074,087	1074,087
West Bengal	141	59,800	335,652	671,304	671,304
All-India	134	734,997	3995,817	7991,634	7991,634

Table 3.2 (Contd.)

States	1970-71				
	NRR	Pop.	Ster.	IUD	CC
Andhra Pradesh	103	60,233	376,690	753,379	753,379
Assam	139	27,884	220,487	440,973	440,973
Bihar	141	91,813	603,770	1207,540	1207,540
Gujarat	103	37,635	301,180	602,360	602,380
Haryana	102	10,333	70,748	141,496	141,496
Himachal Pradesh	103	4,884	31,697	63,394	63,394
Jammu & Kashmir	145	7,477	44,329	88,657	88,657
Karnataka	116	43,331	282,517	565,034	565,034
Kerala	103	31,490	196,647	393,294	393,294
Madhya Pradesh	118	60,834	393,057	786,114	786,114
Maharashtra	102	68,512	427,690	855,379	855,379
Orissa	116	31,773	206,136	412,271	412,271
Punjab	105	20,335	159,761	319,522	319,522
Rajasthan	141	43,153	255,950	511,899	511,899
Tamil Nadu	102	50,762	325,927	651,853	651,853
Uttar Pradesh	131	127,747	718,272	1436,544	1436,544
West Bengal	121	65,266	446,667	893,333	893,333
All-India	117	798,645	5213,504	10427,008	10427,008

Table 3.2(Contd.)

	1995-96				
	NRR	Pop.	Steri.	IUD	CC
Andhra Pradesh	100	63,916	419,387	838,775	838,775
Assam	106	30,755	268,818	537,637	537,637
Bihar	120	99,097	760,772	1,521,545	1,521,545
Gujarat	100	40,273	292,724	585,448	585,448
Haryana	100	11,068	82,490	164,980	164,980
Himachal Pradesh	100	5,189	33,032	66,063	66,063
Jammu & Kashmir	123	8,197	56,011	112,022	112,022
Karnataka	103	46,616	331,264	662,528	662,528
Kerala	100	33,583	208,626	417,252	417,252
Madhya Pradesh	103	65,422	446,429	892,859	892,859
Maharashtra	100	72,852	487,229	974,459	974,459
Orissa	103	34,106	234,245	468,490	468,490
Punjab	100	21,609	142,860	285,720	285,720
Rajasthan	121	47,402	312,050	624,100	624,100
Tamil Nadu	100	53,367	342,057	684,114	684,114
Uttar Pradesh	116	137,855	853,956	1,707,912	1,707,902
West Bengal	103	70,186	517,592	1,035,185	1,035,185
All-India	103	857,224	6,007,255	12,014,511	12,014,511

Table 3.2 (concluded)

States	2000-01				
	NRR	Pop.	Steri.	TUD	CC
Andhra Pradesh	100	67,745	449,276	898,552	898,552
Assam	100	33,357	263,185	526,369	526,369
Bihar	103	107,048	796,006	1,592,013	1,592,013
Gujarat	100	43,068	311,469	622,937	622,937
Haryana	100	11,789	84,239	168,478	168,478
Himachal Pradesh	100	5,507	35,448	70,896	70,896
Jammu & Kashmir	103	8,853	65,411	130,821	130,821
Karnataka	100	49,675	342,769	685,537	685,537
Kerala	100	35,749	225,231	450,462	450,462
Madhya Pradesh	100	69,567	461,136	922,273	922,273
Maharashtra	100	77,150	507,155	1,014,310	1,014,310
Orissa	100	36,286	250,850	501,699	501,699
Punjab	100	22,984	153,712	307,424	307,424
Rajasthan	103	51,348	359,136	718,272	718,272
Tamil Nadu	100	55,905	347,513	695,025	695,025
Uttar Pradesh	103	146,997	947,891	1,895,783	1,895,783
West Bengal	100	74,713	509,764	1,019,529	1,019,529
All-India	100	910,424	6,074,905	12,149,810	12,149,810

Table 3.3 : Desired levels of NRR and Future Family Planning Targets per 1000 Population

Low Priority Sterilisation

	1981-82			
	Targets per 1000 Popn.			
	NRR	St.	IUD	CC
Andhra Pradesh	132	2.07	4.14	4.14
Assam	228	2.69	5.39	5.39
Bihar	186	1.95	3.91	3.91
Gujarat	130	3.70	7.41	7.41
Haryana	125	5.75	11.49	11.49
Himachal Pradesh	137	2.50	4.99	4.99
Jammu & Kashmir	197	2.00	4.01	4.01
Karnataka	145	2.80	5.59	5.59
Kerala	136	3.81	7.63	7.63
Madhya Pradesh	152	2.26	4.53	4.53
Maharashtra	121	2.49	4.98	4.98
Orissa	145	2.47	4.94	4.94
Punjab	163	4.67	9.35	9.35
Rajasthan	186	2.68	5.35	5.35
Tamil Nadu	118	2.43	4.13	4.13
Uttar Pradesh	163	2.89	5.78	5.78
West Bengal	159	2.39	4.79	4.79
All-India:	148	3.11	6.22	6.22



Table 3.3: (Contd.)

States	1985-86				1990-91			
	Targets per 1000 popn.				Targets per 1000 popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
Andhra Pradesh	118	5.12	10.23	10.23	103	6.25	12.51	12.51
Assam	183	6.42	12.83	12.83	139	7.91	15.81	15.81
Bihar	164	4.84	9.69	9.69	141	6.59	13.15	13.15
Gujarat	117	6.43	12.85	12.85	103	8.00	16.01	16.01
Haryana	114	6.51	13.02	13.02	102	6.85	13.69	13.69
Himachal Pradesh	121	5.33	10.66	10.66	103	6.49	12.98	12.98
Jammu & Kashmir	172	4.53	9.07	9.07	145	5.93	11.86	11.86
Karnataka	131	5.32	10.64	10.64	116	6.52	13.04	13.04
Kerala	119	5.89	11.79	11.79	103	6.24	12.49	12.49
Madhya Pradesh	136	5.27	10.54	10.54	118	6.46	12.92	12.92
Maharashtra	112	5.35	10.70	10.70	102	6.24	12.49	12.49
Orissa	131	5.37	10.74	10.74	116	6.49	12.98	12.98
Punjab	134	7.08	14.15	14.15	105	7.86	15.71	15.71
Rajasthan	164	4.86	9.72	9.72	141	5.93	11.86	11.86
Tamil Nadu	110	5.27	10.55	10.55	102	6.42	12.84	12.84
Uttar Pradesh	148	4.59	9.18	9.18	131	5.62	11.25	11.25
West Bengal	141	5.61	11.23	11.23	121	6.84	13.69	13.69
All India	134	5.44	10.87	10.87	117	6.53	13.06	13.06

Table 3.3 (Contd.)

States	1995-96				2000-01			
	Targets per 1000 popn.				Targets per 1000 popn.			
	NRR	St.	IUD	CC	NRR	St.	IUD	CC
Andhra Pradesh	100	6.56	13.12	13.12	100	6.63	13.26	13.26
Assam	106	8.74	17.48	17.48	100	7.89	15.78	15.78
Bihar	120	7.68	15.35	15.35	103	7.44	14.87	14.87
Gujarat	100	7.27	14.54	14.54	100	7.23	14.46	14.46
Haryana	100	7.45	14.91	14.91	100	7.15	14.29	14.29
Himachal Pradesh	100	6.37	12.73	12.73	100	6.84	12.87	12.87
Jammu & Kashmir	123	6.83	13.67	13.67	103	7.39	14.78	14.78
Karnataka	103	7.11	14.21	14.21	100	6.89	13.78	13.78
Kerala	100	6.21	12.42	12.42	100	6.30	12.60	12.60
Madhya Pradesh	103	6.82	13.65	13.65	100	6.63	13.26	13.26
Maharashtra	100	6.69	13.38	13.38	100	6.57	13.15	13.15
Orissa	103	6.87	13.74	13.74	100	6.91	13.83	13.83
Punjab	100	6.61	13.22	13.22	100	6.69	13.38	13.38
Rajasthan	121	6.58	13.17	13.17	103	6.99	13.99	13.99
Tamil Nadu	100	6.41	12.82	12.82	100	6.22	12.43	12.43
Uttar Pradesh	116	6.19	12.39	12.39	103	6.45	12.90	12.90
West Bengal	103	7.37	14.75	14.75	100	6.82	13.65	13.65
All-India:	103	7.01	14.02	14.02	100	6.67	13.35	13.55