

**REPORT  
OF  
THE COMMITTEE OF THE STUDY GROUP  
ON  
INFORMATION GAP**



**PLANNING COMMISSION  
GOVERNMENT OF INDIA  
NEW DELHI-110001  
July, 1989**

REPORT OF THE COMMITTEE OF THE STUDY GROUP ON  
INFORMATION GAP

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PLANNING COMMISSION,  
GOVERNMENT OF INDIA, NEW DELHI

ON INFORMATION

*Knowledge is of two kinds: either you know something yourself or you know where to find information about it.*

*- Samuel Johnson.*

*The information you have is not what you want; the information you want is not what you need; the information you need is not what you can get; the information you can get costs more than you can pay.*

*- Finagle's Law.*

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C H A P T E R - I

INTRODUCTION:

Background

1.1 The Report of the Working Group on District Planning set up by the Planning Commission in September, 82 under the Chairmanship of Prof. C.H.Hanumanth Rao, the then Member, Planning Commission had highlighted the need to identify the minimum information and data required for Planning and decision making at the district level in the context of decentralised Planning. It had provided an illustrative list of data/ information useful for district Planning. But experience with district planning so far has clearly brought out the fact that there are significant gaps in the availability of data/ information at sub-state level, as against the requirement of such data for planning. Basic information on several socio-economic aspects required for Planning at the lower level is not available. In certain cases there is considerable time lag in the generation of data not to speak of making it available to the users in time. Though a lot of data is collected, at micro level which is processed and published for the country as a whole or for individual States, no disaggregation of the data for sub-state levels is done. This results in a yawning gap in data for effective planning at those levels. There is, therefore an urgent need to fill in the gap and improve the information system.

Constitution of the Study Group

1.2 In the above background, the Planning Commission, had convened a meeting of State Planning Secretaries on the 6th July, 1988, to discuss this and other issues connected with district Planning. After discussions, it was decided to set up a Study Group on Information Gap which would identify the information gap and recommend suitable procedures for collection, compilation, processing, storage, retrieval etc. of the required information including its periodic updating. It was also expected to recommend the best means of utilising available input facilities for the purpose. The Study Group was constituted in Planning Commission Order N6.PC(P)27/Study-Group/88-MLP dated 9.9.88 with the following composition. A copy of this order is at Annex- I.

Composition :

- 1.3. (i) Shri P.B.Krishnaswamy, Chairman  
Special Secretary,  
Planning Commission.
- (ii) Dr. N.Seshagiri, Member  
Director General  
National Informatic Centre  
Planning Commission  
A-Block CGO Complex  
Lodi Road, New Delhi
- (iii) Dr. M.N.Qureshi, Member  
Adviser (SPG)  
Deptt. of Science  
and Technology,  
Technology Bhawan  
New Nehrauli Road  
New Delhi - 16.
- (iv) Dr. L.R.A. Narainan, Member  
Associate Professor  
National Remote  
Sensing Agency,  
(Deptt. of Sapce,  
Balnagar)  
Hyderabad-500032, A.P.



- (v) Shri Mukul Sanwal, Member  
Administrative Training  
Institute, Naini Tal (UP)
- (vi) Shri S. Sundararajan, Member  
Addl. Development Commissioner  
and Secretary, Planning and  
Coordination Deptt. Government  
of Orissa, Bhubaneswar.
- (vii) Shri V.R.S. Cowlagi, Member  
Planning Secretary,  
Govt. of Gujarat, Gandhinagar
- (viii) Shri R.V. Pillai, Member  
Planning Secretary,  
Govt. of Meghalaya, Shillong.
- (ix) Shri G.V. Krishnamoorthy, Member  
Planning Secretary,  
Govt. of Kerala, Trivandrum.
- (x) Shri G.V. Viswanath, Member  
Planning Secretary,  
Govt. of Karnataka, Bangalore.
- (xi) Shri Arun Sinha, Convenor.  
Joint Secretary (States Plan)  
Planning Commission,  
New Delhi.

4. Subsequently Dr. Uddesh Kohli, Adviser (Energy & Monitoring), Planning Commission was also taken as a member of the Study Group vide Planning Commission order No. PC(P)27/Study Group/88-MLP dated 26.9.88. In the same order, Shri M. Shankarnarayan was nominated as a member of the Group in the capacity of Secretary (Planning), Government of Karnataka in place of Shri G.V. Vishwanath. A copy of this order is at Annex - II.

Terms of Reference:

- 1.5. The terms of reference of the Study Group were -
- (a) To review the actual position prevailing in the States including the contribution of various agencies involved in the field of informatics.

- (b) To synthesise and evolve an information system as adjunct to planning.
- (c) To prescribe role of various organisations and work out time frame and phasing of development and
- (d) To consider and recommend any other matter connected with bridging of information gap.

Proceedings:

1.6. The first meeting of the Study Group on Information Gap was held under the Chairmanship of Shri P.B. Krishnaswamy, Special Secretary, Planning Commission on 4th October, 1988 in Yojana Bhawan. In the said meeting, it was decided to set up a Committee to study in depth some of the issues relating to information gap in the context of District Planning and give a report to the Study Group.

1.7. The meeting also discussed in detail regarding the information gap, the related issues to be covered and the approach to be adopted by the Study Group in dealing with the assignment. Besides the decision to appoint a small Committee of Experts to identify the data requirement, the Study Group arrived at a consensus on some of the major issues as follows:-

- (i) Village would continue to be the basic data originating point. In some cases particularly where infrastructural data is required, it could be Block or Taluk.
- (ii) NIC is to play a vital role in the building up of data base, as also its use, through its district information net work. It has to develop the process of data collection, making necessary adjustments of the wide differences that exist between the various States. It would necessitate formation of Standing Coordination Committee at the State Level.

- (iii) There is need to coordinate the efforts of various agencies like BISNIC, NNRS, CRISP, NRDMS, NRSA etc. involved in information collection to avoid possibilities of over-lapping of efforts and to gain maximum advantage out of them for information support for planning purposes.
- (iv) Besides identifying the information data requirement, it would be necessary to look at the sources from which data originates the formats in which it flows and purposes for which it is being used, in order to enable the Committee to take stock of available information and to work out simplified formats and the gaps that get covered.
- (v) Institutional arrangements for data collection at the district level and below between the Statistical and Planning agencies have to be made to ensure efficient functioning of the system. It was however felt that the two would have to work out in close coordination with each other.
- (vi) There is a need as well for coordination to identify data requirement and data linkage for different levels of Planning. Specially the problems relating to the information need in terms of linkages and in terms of quality assessment would need detailed study for solution.
- (vii) It may not be desirable to try straightaway to computerise all the data, as there is danger of information being cluttered up. In the present context, prioritisation would have to be done in building up information base as a support for effective planning.

Composition of the Committee of the Study Group on Information Gap:

1.8. In pursuance of the decision of the Study Group, the following Committee was constituted vide Planning Commission order No.PC(P)27/Study Group/88-MLP dated 17th October, 1988:

- |       |  |          |
|-------|--|----------|
| (i)   | Shri S.Sundararajan,<br>Additional Development<br>Commissioner & Secretary,<br>Planning, Govt.of Orissa,<br>Bhubaneswar.                           | Chairman |
| (ii)  | Shri Mukul Sanwal,<br>Director, Administrative<br>Training Institute,<br>Nainital (U.P.)   | Member   |
| (iii) | Dr. N.Moni,<br>Principal Systems Analyst,<br>National Informatics Centre,<br>Planning Commission,<br>A-Block, CGO Complex,<br>Lodi Road, New Delhi | Member   |
| (iv)  | Prof. R.N.Tripathy,<br>Director, Centre for Micro<br>Planning, National Institute<br>of Rural Development,<br>Hyderabad.                           | Member   |
| (v)   | Shri R.P.Katyal,<br>Joint Director, National<br>Accounts Division, Central<br>Statistical Organisation,<br>Sardar Patel Bhawan, New Delhi.         | Member   |
| (vi)  | Shri Arun Sinha,<br>Joint Secretary (SP)<br>Planning Commission,<br>New Delhi.   | Convenor |

A copy of the Planning Commission order constituting the committee is at Annex - III.

TERMS OF REFERENCE

1.9. The terms of reference of this Committee were to examine and report

- (a) Information required for Planning purposes at different levels.
- (b) Status of availability of requisite information

- (c) the Information Gap.
- (d) the kind of information format that can be developed.
- (e) any other related issue.

Proceedings:

1.10. The first meeting of the Committee was held on 21st. November, 1988.

1.11. At this meeting, the Committee took note of the recommendations emanating from the National Workshop on Information Gap and Micro Computer Application held during October 10-16, 1988 at Nainital. It was agreed that village should be treated as the basic unit for collection of data, though data may have to be collected at Block/District level, in certain cases, where it cannot be had at village level (e.g.) Railways, roads, Reserved forests, irrigation projects etc. If, in any State, the Administrative Unit is known by a nomenclature other than village, like (e.g.) 'Kara' in Kerala State, that Unit will be the basic Unit for collection of data. In the case of urban areas, the corresponding Unit will be the Ward.

1.12. The following other decisions were also taken :

(i) Formats for data collection needed to be devised keeping in view the distinction between planning, monitoring and evaluation requirements. As such, the proforma could be divided into three data base files namely (i) Plan information data, (ii) data for monitoring (iii) data for evaluation. However, they can be built in such a way that any particular data for any particular purpose can be retrieved from the system to be devised.

(ii) Basic data which is needed to be collected for ~~the~~ planning at the unit level with facility for aggregation need not be changed too frequently and it may have a particular reference period. However, it may be updated after every year or so.

(iii) Data for monitoring would require to be collected monthly, fortnightly or even weekly. On the basis of this data the data base file on plan information could be updated once a year.

(iv) Collection of derived information from facts available to the Surveyors for obtaining information like "Potentials" etc. would form part of data collection on the basis of queries made on the spot and judgement made by the data collectors. For this, the nodal agencies and the sources of data should be identified.

(v) For the data requirement at the District level in respect of unemployment, poverty population and consumer expenditure, the three major data inputs for District level Planning, the possibility of utilizing N.S.S. data after adequate increase of sample size or restructuring of the design by pooling of Central & State samples to arrive at fairly reliable district-wise estimates may be examined.

(vi) Data processing may have to be computerised to reduce time lag and facilitate retrieval of data. It is, therefore, necessary that formats are to be developed by N.I.C. for data processing through DISNIC, with national information net work with terminals, keeping in view the data requirement at various levels for micro level planning.

(vii) NRDMS would specify the items of natural resources inventory relevant for Plan formulation at the district level and those which could be reflected through computographics.

(viii) A mechanism should be evolved to bring about the co-ordination in data management between Central Statistical Organisation and State Statistical Bureaus, NRDMS, NIC and other concerned institutions. At the State level, the newly constituted NIC Coordination Committee and similarly at the district level, the NIC District Co-ordination Committee can ensure this coordination, but there is a need for an Apex Coordination Committee at the National level. The Planning Commission could constitute such a Committee under the Chairmanship of Secretary/Special Secretary, Planning Commission and with the Heads of all Data Source Agencies and representatives of a few State Governments as members. In the alternative, the National Level Steering Committee on DISNIC could be enlarged to include the Heads of the Data Source Agencies and representatives of a few States as Members.

1.13. Further discussion was held again in the Planning Commission in the last week of December, 1988, followed by another meeting under the Chairmanship of Shri Arun Sinha, Joint Secretary (State Plans), Planning Commission on 12.1.89 to discuss the formats developed by NIC and to suggest necessary modifications for catering to the data requirement at the District, Block and village levels for planning purposes.

1.14. The Committee finalised its report at its sitting held on 30.6.89 in the Planning Commission.

1.15. The Committee would like to gratefully acknowledge the assistance provided by Sarvashri A.Sinha, Joint Secretary (State Plans) and Jagadish Chandra, Deputy Adviser as also Smt. S.Salhotra, Senior Research Officer of the Planning Commission in fixing the meetings of the Committee and in timely circulation of the Agenda notes for and the proceedings of the meetings. The Committee would also like to place on record its deep appreciation of the help rendered by Shri S.K.Sinha, Director, Economics and Statistics, Government of Orissa and Sarvashri M.Moni, Principal Systems Analyst & Head, DISNIC Soft Ware Division and N.Malaviya, Scientific Officer NIC in guiding the deliberations of the Committee and in finalising its report.



C H A P T E R - I I

THE EXISTING INFORMATION SYSTEM AND ITS  
APPLICABILITY TO MICRO LEVEL PLANNING.

2.1.1. Before examining the details of data and information required for District and Sub-district level planning, it would be worthwhile to make an assessment of the actual data available and the usability and adequacy of that data for the purpose. The statistical system as has been evolved in the country since independence, is broadly decentralised with subjectwise division of authority and responsibility for the collection of Statistics between the Central and State Governments. As between them, there is a further division of responsibility for collection, compilation and maintenance of statistics among the various Central Ministries, as also among the various State departments. A number of organisations have been set up at the Central level for the purpose of collecting and compiling statistical data on specific items which have relevance broadly to the national or the State level barring a few like the Census organisation which furnishes population and vital statistics even upto village level through the system of decennial censuses. Similar is the case with quinquennial live stock Census which provides data on the size and composition of live stock which though available at the village level, is published for the district and higher levels of territorial aggregation. The National Sample Survey Organisation, through its nationwide sample surveys on different socio-economic aspects of the economy provides useful data concerning

the income, expenditure and level of living of the population. These data are not available even at the district level not to speak of block/village level. Pooling of data of central and state samples, can provide estimates at best at the regional level. As such no other statistics which is collected and compiled by the Central agencies throw disaggregated information at the district or sub-district levels. Consequently, the statistical information made available by the Statistical organisations in the States and also by other Departments of State Governments has to be examined with reference to the methodology of collection to see to what extent it can be adopted qualitywise and quantitywise to lower levels of territorial disaggregation to be of use for micro level planning. The study has accordingly to be confined to the data available from the State level agencies, since only that would be relevant for the District or sub-district level planning.

2.1.2. In pursuance of the recommendations of the Working Group on preparation of a manual on regional level statistics constituted by the Department of Statistics in 1977, many State Directorates and Economics and Statistics are collecting village level Statistics under the schemes known as "Village Index Card Scheme". In 1986, the Planning Commission had issued certain guidelines to the State Governments for collection of information on village level development indicators in a particular format in view

of the emphasis on decentralisation. These guidelines were issued in D.O. No. 0-11017/7/86 - M & I dated 14th October, 1986, of Shri J. S. Bajjal, the then Secretary of the Planning Commission and the format covered as many as 27 development indicators. Similarly, information on village level indicators have been compiled by a number of State Governments on their own. The Government of Karnataka had collected a lot of information about villages and had even computerised the data in mid Seventies though this information was not put to any use. The Government of Gujarat also maintains information about villages for the purpose of implementing minimum needs programme. Government of Madhya Pradesh also collected information on development indicators for each village in a comprehensive and compact form. The Committee feels that all the information being collected under the village index card system, and the own schemes of the State Governments are inadequate to meet the needs of planning at the level of a village or group of villages. So instead of duplicating the efforts of collection of data at village level in different forms, the committee would suggest that comprehensive information at village level may be collected in the format recommended by this Committee in para 3.3.2 of this report.

2.2.1. Data available as at present and the data that can be generated can be classified into two major categories, such as (i) data available as

bye-product during implementation of various development programmes and (ii) data obtained through special surveys or research studies undertaken. Since the data available through research or evaluation studies is very much limited and specific, official agency set up for collection and compilation of statistics remains as the major source for making available whatever data could be utilised for planning purposes, with all its limitations in content, coverage, quality and periodicity.

2.2.2. Incidentally, in many States, the data being collected for the purpose of monitoring of various plan schemes remains with the line Departments and does not regularly flow to the central agency in-charge of collection and compilation of Statistics, viz., the State Directorate of Economics and Statistics. This data is required for up-dating the plan information. In view of this, the Committee would recommended that a regular system of flow of this data to the D.E.S. should be evolved. Perhaps, the District Planning office which gets this data in the normal course of plan monitoring at the district level from different District level officers of line Departments, could it self use this data for up-dating the plan information, so that it can be picked up by the District Statistical Office, and Director, Economics & Statistics through, DISNIC.

2.3 Inadequacy or non-availability of data at the required level continues to be the principal constraint for micro-level planners leading to a situation of non-reflection of the need of the area or of compromising with the quality of data. The quality of data depends on the procedure adopted for collection and the agency responsible for it and other related factors. Secondly, in the existing system, sometimes there are more than one agency involved, because of established practice, involving duplication of efforts in collection of the same type of information. In such cases the concepts, methodology and coverage could be different. As a result, though the data may relate to similar items, it is not strictly comparable. Certain data on agriculture, irrigation, etc. will come under this category. Thirdly, there is no uniformity or standardised approach in collecting and reporting various types of statistical information, which naturally makes it appear inconsistent and incompatible.

Further, in the existing system, while reporting village-wise information at times, the revenue villages and the census villages get mixed up. To some extent there is lack of standardisation.

2.4 Data sets as available which can be utilised for planning purposes at the village, Block or district level can be classified into six classes as per the recommendations of the Working Group on District Planning. These are,

- (i) Natural Resources
- (ii) Infrastructure details
- (iii) Demographic particulars
- (iv) Agro-economic conditions
- (v) Socio-economic aspects, and
- (vi) Specific items collected through surveys / studies.

Besides the State Directorate of Economics and Statistics, the apex statistical organisation in the State and the Statistical Cells with other Heads of Departments, some development Departments have at district, sub-divisional, block and village levels agencies for smooth implementation of departmental programmes with independent mechanism for collection of data for planning and monitoring purposes. This has helped in making available, with whatever limitations there may be, a large mass of data at district, Block and village level, which gets collected through the existing Government machinery. The category-wise details regarding their availability and content can be summarised in following paragraphs.

## 2.5 Data on Natural Resources:

### 2.5.1 Geographical area :

The total geographical area of the village or Block is available from the records prepared by survey and settlement operations. These figures are updated through resurveys taken up at irregular intervals which at times do go upto 30-40 years. Among the villages there are some uninhabited villages as well and each village is demarcated by a boundary, which generally excludes the area of Reserved / Protected Forests. In the long intervals between settlement operations, the ownership of lands undergoes changes. The local Revenue officials like the Patwari, Revenue Inspector and the Tahsildar keep this information but often it is not incorporated in the basic land records of the villages.

### 2.5.2 Classification of Land :

The source of this information is again the survey and settlement records. Along with this, details like irrigation status, etc. are also recorded. There have been marked changes in the pattern of use over years, because of depletion of forest coverage and because land classified as pastures, community land and fallow change their classification overtime. These changes get recorded through

settlement operations at long intervals. Thus, though land records serve as basic records, they do not become very much useful for land use planning at the micro-level unless the classifications have been recorded very recently.

The Agriculture Department also collects information about classification of land for the purpose of computing production and productivity. Their main aim is to get data on net and gross area sown under different crops. Since the information on classification of land is made available by the Agriculture Department through personal enquiry on an annual basis, this piece of information with a time series data becomes the only source of information on the subject. Recently, the District Statistical Agency has also been engaged in covering all the villages in a cycle of 5 years for compilation of data on land use. Keeping in view the scientific methodology and procedure of collection of data adopted by the Directorate of Economics & Statistics, the information as available under nine-fold classification is likely to be more accurate though subject to annual variations as between classifications. The Agricultural Census also throws out certain information once in every 5 years on land classification and utilisation besides ancillary information on size of operational holdings, tenancy, area irrigated, area under different crops etc. which are available for the district level only. However, the utility of this data for land use planning at micro level is doubtful.



2.5.3. Rainfall, temperature and  
Climatic conditions.

A recording station has been provided in each Block which records the daily rainfall, the highest and lowest temperature in each month and furnishes data to District Collector. In the absence of any recording station within a block, the report of the neighbouring Block is usually used. For Agricultural planning, micro level information on rainfall, total number of rainy days, the highest and lowest temperatures and other details relating to climatic features would be required.

2.5.4. S o i l

For the purpose of planning for agricultural production, information regarding retention of soil moisture, texture and depth of top soil, area requiring soil conservation, area under saline inundation etc. would be necessary but this data for the Block and Panchayats are not available at present except with respect to some specific areas where detailed surveys have been undertaken by the soil conservation agencies. The

monthly and annual reports submitted by the District Soil Conservation Officer in respect of different schemes like Plantations, bunding, Pasture development etc. could serve as the source of information and the data can be made use of, for Block level planning. Generally the District Soil Conservation Officers keep their Plan information on water shed basis. But it should be possible to break this information down villagewise and furnish it to the District Planning Office with necessary cross referencing of the water shed code number, so that data can be used either on village basis or on water shed basis as may be required in any particular case.

2.5.5. Other natural resources.

There may be certain local resources like mineral deposits or quarries, large water resources, including underground water resources, information about which would be useful for the District and Block level planners. Though such type of information may also be available from the Geological Survey of India or the State Mining and Geology Department such information is generally

for large areas. Data like type and extent of minerals, water resources etc. for micro areas such as Blocks may, therefore, have to be collected.

## 2.6. INFRA-STRUCTURE DETAILS

### 2.6.1. Rural Health.

In all the Blocks, there are Primary Health Centres and sub-Centres for health cover and extension of family welfare services to the rural population of the area under the control of the Chief District Medical Officer. At selected places inside the Block area there are also dispensaries and Health Centres set up according to certain norms and catering to the requirements of the people. The data under the rural health sector, needed for planning for infrastructure in the area which includes the availability and type of institutions and their number, the types of health facilities, the number of beds, number of medical staff available, number of patients treated, family welfare and ECH facilities available etc. is generally kept at the public health centres or the District Medical Office. But the basic statistics on rural health infrastructure is not available in complete form with the Block Development Officers. Results of some specific case studies undertaken by the Health Directorate in selected area may also be required for planning purposes.

2.6.2 EDUCATION

Education Departments of State Government have a wide network of institutions and infrastructural facilities at different levels for collection of information for the purpose of educational planning. Such information is generally available as a bye-product of routine administration. Under the District Inspector of Schools, there are Sub-Inspectors of Schools in each Block Office who maintain data on location of different types of schools in the Block area, number of students and teachers by sex and by ethnic group, average annual attendance etc. . For Ashram Schools run by the Tribal and Rural Welfare Departments similar records are compiled at the Block level for the routine administration. Information on adult education and functional literacy programmes and those pertaining to non-formal education is also available in the concerned offices. Additional data required at the Block level and district level can be collected through the S.I. of Schools and District Inspector of Schools. Updating of educational data at the various levels by the same agencies would not pose any problem.

Besides the data available from the administration, other relevant data on educational development collected through specific and periodical surveys undertaken in the Block areas -

is also available in published form. The Fifth All India Education Survey, recently completed, provides information relating to (i) availability of educational institutions for all habitations and (ii) facilities available in the institutions to meet the requirement of quality. It gives information on the location of schools in every inhabited village, the type of schools, number of teachers and students classified according to ethnic status ( S. C. and S.T. ) and facilities available in each of them etc.. In case of villages without a school, the distance of the nearest school has been reported. As such the data available from both the sources are fairly adequate for educational planning purposes at micro level including determination of location and upgradation of schools and for provision of other necessary educational infrastructural facilities in the area.

### 2.6.3. Drinking water

The Urban Development Department of State Governments generally implement drinking water supply schemes both for rural and urban areas. For urban areas, the supply is effected through the Municipalities and N.A.Cs. There is no problem regarding availability of information

about these schemes. In regard to rural water supply schemes there are public health Engineering personnel in all the Blocks who implement water supply schemes in problem villages. They can give required information village-wise. Of course revenue village-wise information on drinking water supply may not be enough as the facilities should have a bearing on all habitations, (i.e) the hamlets as well. Information in regard to population and availability of drinking water facilities in hamlets is also essential for proper planning.

Further, in certain areas, the statistics relating to drinking water facilities is maintained by two separate agencies who are in charge of implementation of the schemes. The Block Development Officer is in-charge of provision of sanitary and open wells whereas the public Health Engineering Staff are in-charge of sinking tube wells. As a result, the Public Health Engineering personnel may not have the complete data on drinking water facilities in the Block area. But the data available with Public Health Engineering Department and Block Development Officer can be pooled to get a complete picture of the status of drinking water supply facilities in the Block area and for formulation of an effective plan viz-a-viz the identified problem villages as per the norms fixed.

#### 2.6.4. Transport and Communication

Data in regard to the transport facilities would be available at the Block level. This relates

to length of roads, the type and category of roads, number and frequency of buses plying, number of bus stops, distance from the nearest bus stop etc.. Village-wise information on the facility can be collected by the Block authorities through the help of Roads & Buildings authorities and the Transport authorities. With the help of existing agencies, periodical updating of the data is also possible. In States where village Index Card Scheme is in operation, data for this sector could be taken from the Cards. Similarly, information in regard to the number of posts and telegraph offices functioning within the area and population served by them, the volume and frequency of postal and telegraphic activities which are being collected by the P.&T authorities through their periodical censuses would be available for use by the District and Block level authorities.

#### 2.6.5. Power

In regard to electrification in the area, two types of data are required. The first is on the availability of electricity for the village on the basis of the transmission lines connecting the village. The other is the information relating to actual electrification of the village and whether electric power is utilised for domestic, agricultural and non-agricultural purposes. There are of course complaints of misreporting. Sometimes a village is reported

to be electrified when only transmission lines have passed by the village boundary.

For planning the utilisation of electricity for various purposes in the villages, though some information is available from the electricity offices in the area, bifurcation of purpose-wise and village-wise data would be essential.

#### 2.6.6. Housing

Data about housing is an important requirement for area planning. In regard to urban areas, data on housing is available from the concerned NACs or Municipalities. Relevant data relating to building activities is also thrown up by National Building Organisation in their regular reports but similar information for the villages and Block level is not available at present from any source.

#### 2.6.7. Small Industries and Services

Development of small industries and traditional household and Cottage industries is considered as an essential programme of plan activity for generation of income and employment opportunities for the people in rural areas. Such activities will include handlooms, power looms, bee-keeping, food and fodder processing units etc. Similarly under the services sector, small trades



like grocery, tea stalls, betel shops etc. find ready acceptance with the rural people. Detailed data on the nature of these industries and trade and the number of people engaged in each are necessary. This data could be obtained from the District Industries Centres at the district level and Industrial Promotion Officers at the Block level. This data could also be had with village-wise details if needed. The agencies available at various levels are adequate. Some special studies/surveys can also be undertaken by them to cater to the requirement of planning.

Data on training for different trades is maintained in the Block offices. But they do not have adequate data on existing skills needing upgradation, skills locally needed etc., For this, Census of households can be the only guide.

#### 2.6.8. Financial Institutions

Data relating to the activities of the financial institutions is needed for credit planning purposes. Information on the number of institutions by type such as rural banks, commercial banks, service cooperatives, agricultural credit societies etc. and their membership is readily available. The sources of information relating to their activities in the rural areas are the financial institutions themselves.

The credit plans prepared by the S.B.I also give detailed information. These are adequate for drawing up plans at the district and sub-district levels.

## 2.7 Demographic particulars:

### 2.7.1. Population:

Population is recognised as a resource like any other natural resource and all area Planning aims at betterment of the living conditions of the people of that area. The information about the population in the village or Block under different categories is important for determining the nature and size of the plans. Growth of population has to be taken into account for any planning for the future. It is redeeming that the basic data on population and its other characteristics is abundantly available in the volume of census reports as published and other socio-economic surveys undertaken by various agencies.

The size of the population during interim years between the censuses can also be worked

out by known procedure of estimation. Even with this availability of data, it may be necessary to identify any additional needs for micro level planning and to determine how far those can be met with what is currently available from the point of view of coverage, reliability and timeliness. The decennial census continues to be the most dependable source of all information like size and composition of the population of a village, G.P. or Block with classified details on age, sex, ethnicity, literacy, working population, employment/ unemployment etc. This has the only limitation that the details become out-dated due to the long gap for re-enumeration. Mid-year details are required to be obtained either through known procedure of estimations or through some special surveys undertaken for the purpose. D.R.D.A and other agencies do undertake such survey to meet the gap.

### 2.7.2. Manpower & Employment

There are three major sources of information on manpower and employment. They are (a) Employment exchanges (b) National Sample survey and (c) decennial census. But they have their limitations as well.

In regard to data obtained from employment exchanges, it is not possible to know the actual number of job seekers belonging to a particular area as the job aspirants can register themselves in any exchange of their choice. Moreover, it is difficult to know the actual number of unemployed from the live registers maintained in the exchanges, since a large part of the labour force in the rural areas is generally not registered.

Similarly, the information on labour force participation and level of unemployment though available from N.S.S. reports, has been generated after a gap of five years. Further, the estimates hold good for the State only and are not useful even with broad guesses for the district or block.

In the Census only, the broad classification of persons whether he is a worker or a non-worker is shown. The workers have been classified again as main and marginal workers age and sex-wise.

Main workers have been further divided into different categories like cultivators, agricultural labourers, industries, household industries, trade and commerce and services. Those who have worked for less than six months during the reference year have been classified as marginal workers. The rest of the population have been classified as non-workers. This would not help in measuring the extent of unemployment.

The status of unemployment and underemployment problem in rural areas could be assessed if the Primary and secondary occupation of the Working population could be determined. There is also the need for other supporting information like the number of days employed on an average during the year, whether being employed the person is still a job seeker, if so what kind of work etc. This would be necessary for making an assessment of the actual level of unemployment and underemployment for formulation of a strategy for their reduction. Such information is not readily available at the level of the Block or village. The household census organised by D.R.D.As. may provide some information but a complete picture would not emerge. Even if an estimate of the underemployment could be derived, there will still be some information left out such as whether these

categories of persons are seeking work and, if so, the nature of work sought etc. which would also be necessary for manpower planning purposes. On the whole the data needs for manpower planning cannot be fully met with the data as at present available and special surveys would be called for. However, available data can be used for immediate planning.

### 2.7.3. Live stock population

Data on Live stock population is available in the livestock Census reports, though it has limitations like periodical validity in regard to their size as in case of human population. However in regard to other secondary data on the live stock the information is usually obtained from the District Veterinary officers through their net work at lower levels. For meeting the information gap on some other specified items, it may be necessary to undertake special studies and sample surveys either separately or alongwith routine studies/surveys.

## 2.8 Data sets on Agro-Economic conditions:

### 2.8.1. Agricultural Statistics

In an agriculturally predominant economy, planning at the grass root level will be dependent on basic details of the nature and structure of agriculture and allied sectors. Lack of adequate and accurate data from this particular sector alone may result in failure to properly plan for the needs of the area. Thus with the emphasis on decentralised planning in the country, there has been a growing demand for more detailed and reliable information reflecting the real scenario of

agriculture and its potentialities and deficiencies at micro level.

2.8.2. Information on gross cropped area and net area sown, cropwise area, area irrigated, use of fertiliser and insecticides, and other inputs, estimates of yield rates and seasonwise production of different crops is being collected by the Agricultural Agency in the district as well as at the block level. In regard to the procedure of collection of data, the practice of Village Agricultural Worker obtaining the information from cultivator households through personal enquiry, is also being followed in many of the States. There however, is the question of the degree of accuracy of the information. The degree of accuracy may vary according to the type of information collected, the purpose for which it is collected and the knowledge of the respondents. So is the case with information collected through the Revenue agency in some of the States which is generally not done on objective basis.

2.8.3. The other agency which has been assigned the task of estimating the area and yield of principal crops is the District Statistical agency. The method and procedure of data collection is more scientific, because complete enumeration of the plots in the village is undertaken and the area under each crop is recorded. The yield estimations of the crops is also done through crop cutting experiments following certain prescribed scientific procedures. With the use of average yield rates derived from these experiments, the estimations of production of different crops is done. This procedure helps in providing fairly reliable data on the yield of

and acreage under different crops. But though the village-wise information on the acreage under different crops and utilisation pattern of the land is available, the estimates of yield rate and production are limited to the Block level.

2.8.4. Since decentralised planning focusses on the village, Gram Panchayat and Block as the development units, accurate agricultural and related statistics is needed for each of the levels. Between the data, based on eye estimations and oral enquiry and that obtained through scientific assessment, the data made available by the District Statistical agency has a better claim of quality. In regard to village-wise information on land utilisation and agricultural activity, it takes the District Statistical agency 5 years to cover all the villages in the State due to the ceiling limit of 20% villages for every year. There is, therefore, a need for supplementing the data on land classification and use, cropping pattern, yield rate and production with that from the district and block agricultural authorities.

2.8.5. Livestock and Animal Husbandry:

In regard to the data on the stock of different varieties of animals and birds, the main source is the quinquennial report published by livestock census. Current stock is calculated through extrapolation techniques. Secondary data on animals and birds is, however, available from the District Veterinary Officers and breeding farms. However, some of the details



on the working and non-working status of animals, percentage of milch and dry cattle, average yield per day, percapita consumption of milk, demands in market etc. have to be collected for planning purposes.

2.8.6. Information on the number of high yielding animals is not, however, available at the village or Block level whereas Block Officers maintain systematic data on livestock including number of artificial inseminations, the number of improved cattle, buffalo and birds supplied under beneficiary oriented programmes, the number of livestock centres/ units etc.. But certain essential information required for planning purposes under poverty alleviation programmes regarding employment and income generated per unit of livestock is not available at the Block level.

2.8.7. Pisciculture

Certain broad information on the number and area of tanks, spawn and fingerlings supplied etc. is maintained by the Fishery and Block offices.

2.8.8. Forestry

Information about area under different types of forests like Reserved Forests, Demarcated Protected Forests, Undemarcated Protected Forests, Village Forests and others and the status of development schemes implemented by the forest department etc. is not available for village or Block level from the forest range offices as the operational jurisdiction of such offices and units are not coterminous with the villages or

Blocks. For that matter, even district wise information is not available as the Forest Divisions are not coterminous with Districts. Thus the data required at the district, Block or village level may have to be collected from the Forest Department with addition or subtraction or through special surveys conducted by other agencies like NRSA.

#### 2.8.9. Ecology and Environment

Ecology and Environment is a newly emerging area of major concern in planning. Environmental impact has to be studied before any major plan project can be approved. Since major projects are not generally taken up in the District Sector, there may not be any need for environmental impact analysis for District Sector Schemes. But even small projects may have to be carefully implemented in delicate eco systems. Existence of a delicate eco system in his area should however be made known to the district planner. Only then he can ensure that there is no disturbance to the eco system and consequent deterioration of ecology and environment. The Committee feels that data about delicate eco systems should be pooled at the National or State level and made available to the

District planner through DISNIC. NIC themselves could get this data from the Ministry of Environment and Forest or the Union Department of Science and Technology, and feed it into DISNIC so that the District Planner is made aware of the details with the help of the software to be devised by NIC for him.

## 2.9 Data on Socio-economic aspects

2.9.1. With a view to prepare a socio-economic profile of all villages for facilitating beneficiary oriented schemes at the block level, an attempt was made to conduct socio-economic survey in each village through the village level workers during the Sixth Five Year Plan. The scope of investigation was limited to studies on :-

- (i) Land holding
- (ii) Types of occupation
- (iii) workers-agricultural and non-agricultural
- (iv) Skills available
- (v) Occupation—Main & subsidiary, and
- (vi) Assets and liabilities.

The survey could not be completed covering all the villages and households in most areas. Even the reliability of collected data for identification of beneficiaries was subject to question.

2.9.2. Another attempt at a fresh survey was made by D.R.D.A. during the year 1988 for collection of socio-economic data needed for implementation of different beneficiary oriented plan schemes. The survey covered the following areas :-

- i) Ethnic groupwise population
- ii) Main and subsidiary occupation
- iii) Land holding by type
- iv) Assets, liabilities and income
- v) Employment
- vi) Live stock position
- vii) Benefits received etc.

The survey, when complete will give a full picture of all the blocks in a district covering the above items . This data can be updated for subsequent years for facilitating its usage in planning. For assessing the quality of data collected through this survey, some sample checks for matching the results would be required.

### 2.9.3. Data on financial aspects of planning

Annual statements incorporating the information on allotments received and expenditures incurred under different schemes, prepared by the Blocks provide useful information about utilisation of plan funds at the Block level. Similarly the financial institutions associated with the development programmes of the Block also keep information on the total amount allocated, amount spent, schemes supported, loans and subsidies given, number and categories of persons assisted, which are essential for plan formulation purposes. So also, the credit plans of the banks and societies are readily available. These can serve as useful source of information for rural development plans. However, information on the investment in the private sector for undertaking development activities is not presently available from any source.

2.10. Specific items of information collected through surveys/studies :

2.10.1. The District Statistical agency operating in the districts is generally responsible for collection of secondary data from different sources besides being in charge of operation of schemes in the districts for primary data collection. There are also statistical wings in some of the district offices under subject matter departments to collect and compile data relating to their subjects, independent of the District Statistical agency. In the Block and village level also there are officials belonging to different departments for collection of statistical information in respect of certain development activities at such lower levels, who work under the control of their respective district level authorities. The information collected by these agencies mainly relate to agriculture, cooperation, education, health and family welfare. However there has not been any effort for standardising and coordinating the statistical activities of these agencies for ensuring the quality, accuracy and timeliness of the data collected at these levels.

2.10.2. The Village Index Card Scheme operated under the direct supervision of the District Statistical officers provides basic data set for every village facilitating preparation of realistic micro-level plans. The information collected through specially designed schedule cover broadly the following items.

- i) Population classified by literacy and backward community.
- ii) Workers by sex and ethnic category.
- iii) Occupation pattern.
- iv) Facility for storage of food-grains and fertilisers and supply of seeds and fertilisers.
- v) Agricultural implements.
- vi) Service facilities
- vii) Facilities for agricultural credit, fertiliser supply, marketing.
- viii) Livestock and fisheries.
- ix) Education.
- x) Health.
- xi) Drinking water.
- xii) Power, transport and communication facilities.
- xiii) Industry.
- xiv) Village amenities.
- xv) Other development activities.

Data collected with proper control and supervision as above can be used for block/Panchayat level planning purposes.

2.10.3. National Sample survey is being operated throughout the country on a continuing basis since 1950 for collection of data on different socio-economic aspects of the national economy.

The surveys broadly cover the following.

- i) Demography, health and family planning.
- ii) Assets, debt and investments.
- iii) Land holdings and Livestock enterprises,
- iv) Employment, rural labour and Consumer expenditure
- v) Self employment in non-agricultural enterprises.
- vi) Special surveys on selected items.

On the basis of the information collected through these surveys, estimates are usually formulated for the State level. But for the district level planning, certain data on (i) proportion of population unemployed (ii) Percapita monthly consumption (quantity and value of consumption of food grains, value of consumption of total food and total non-food etc.) and (iii) proportion of population below poverty line for which information is collected in Household schedule 10 (Employment and unemployment) and 1.0 (Consumer expenditure) would be necessary to be estimated. If estimates are required at district level, for rural and urban sectors separately and/or combined, a special tabulation of the results has to be undertaken. There may not be any technical problems involved in the same as the same data files with the same 'multipliers' (i.e. weights) are to be used.

The reliability of these estimates are judged usually by their relative standard errors and since these indicators are to be used for monitoring and evaluation of the various economic programmes,

their sample estimates with relative standard error in the range of 5 to 10% should be acceptable.

In a normal N.S.S. round, the sample consists of around 8500 sample villages for rural sector and 4500 sample blocks for urban sector in the country. On an average, in the rural sector, there will be 20-25 sample villages in a district, which may vary from district to district. This will mean around 200-250 sample households or 1000-1250 sample persons covered during a round. Basing on the past estimates of standard errors, the relative standard error of the district level estimates of some of the indicators mentioned in paragraphs above for the sample sizes mentioned is expected to be as follows.

<u>Character</u>	<u>expected r.s.e (%)</u>
1. Value of consumption of cereals.	3 to 5
2. Value of consumption of total food.	4 to 6
3. Value of consumption of total non-food.	10 to 12
4. Value of consumption of total expenditure.	5 to 8
5. Proportion of population below poverty line.	8 to 12
6. Proportion of population unemployed.	10 to 15

The above indicates that the districtwise estimates of some of the indicators are reasonably reliable in the rural sector. In the urban sector,



the total sample is smaller and their distribution among the districts is very unequal. As such, estimates for the urban sector may not be meaningful.

It therefore transpires that, for the estimates required at the district level, the present sample size will be grossly inadequate and will be subject to large margin of error. This is particularly true of the poverty line if it is to be estimated at district level. Pooling of the State and Central samples will nodoubt double the sample size, but this also may not be adequate to prepare reliable tables as required. In regard to the estimates of the poverty line, it may be get prepared at the State or in the case of large states, at the regional level. As the consumption pattern as well as prices will be nearly same within a region, the poverty line can be assumed to be the same for the districts within a region.

## CHAPTER - III

### REQUIREMENT OF DATA FOR MICRO LEVEL PLANNING AND THE EXTENT OF ITS AVAILABILITY

3.1. The data needs of the country have increased tremendously in respect of volume, nature, quality, accuracy and timeliness, after our commitment to economic planning with social justice. The demands for collection, compilation and analysis of relevant data have also gone up correspondingly. Further it has assumed a new dimension with the reoriented approach towards data management in the context of shifting of emphasis to micro-level planning.

3.2. Village is the appropriate basic unit for micro-level planning. Next in territorial hierarchy come the Panchayats, Blocks / Mandals and the districts in that order. For the purposes of data requirement, three levels i.e. the village, Block and the district, which form the strategic levels of sub-area planning have been identified. The requirement of data on economic, Agro and Socio - economic aspects as inputs for planning purposes at each level will no doubt vary due to their relevance to the area and the population. The collection and maintenance of this data, would also have short term and long term implications to facilitate and to provide objectivity to plan formulation. Besides the basic data on different aspects which would need to be identified and collected for each of the above levels, some derived data also needs to be maintained. Periodical up-dating of

this data is another essential pre-requisite for an efficient data management system to be developed at the district level. Some data would require up-dating on a regular basis, while for some it would be adequate if it is done in longer spans of say five years.

3.3.1. For the purpose of collection and maintenance of data for planning at each of the levels i.e. , village, Block and the district, the six data sets recommended by the working group can be regrouped into three broad categories. These categories are (i) Infrastructure details relating to data on basic amenities (ii) Demographic details relating to Census data on population and livestock and (iii) Agro-economic details relating to Census data on irrigation, agriculture, forestry, land use etc..

3.3.2. Keeping in view the data requirement at the village, Block and District levels for micro-level Planning, three sets of data with categorywise have been formulated after a series of deliberations between the members of the Committee and the representatives of NIC, C.S.O. NRDMS and NIRD. On the suggestion of this Committee, the Planning Commission had referred the format covering the three sets of data with categorywise details to selected State Governments for their comments in early May. The State Governments were requested to forward their comments within a month. But no comments have been received from any State Government till the end of June. So the Committee has presumed that the formats

are acceptable to the State Governments. These are enclosed as Annexes IV, V and VI to this report. The forms for collection of data will now have to be designed to enable entry of the mass of data so collected at each level, into the Computer at the District level for processing, storage and retrieval with ease. The items of information in each form will have to be suitably coded for computerisation. This should be done by the N.I.C.. While giving code number, the N.I.C. should ensure linkages wherever necessary with the corresponding code numbers for the same items under other systems. Of course the ideal thing would be to have the same code number for a particular item in all systems irrespective of the purpose for which the information is collected / used in a system.

3.4. Infrastructure details :

Information on the infrastructure details at the village level covering basic amenities available within the village or if outside the village, its distance from the village in different sectors like health, education, drinking water, transport and communication, employment, power, housing, industries, agricultural services, animal husbandry, pisciculture, co-operation and other miscellaneous facilities would be essential for drawing up suitable plans for making available such facilities to the village. At the Block and District levels, besides the aggregated village-wise

information on the above facilities, some additional information on these sectors as well as on certain other sectors would be necessary for formulation of plans. The sector-wise details have been briefly outlined in following paragraphs.

#### 3.4.1. Health

The data base needed for planning rural health facilities would include the types of institutions available with distance, the system of health facilities, number of health guides, compounders, midwives, nurses, and doctors. Besides, details on past epidemics with types, affected area and population will be also useful for planning preventive measures.

At the Block level, besides the aggregated data on number and type of health institutions with ownership details, availability of mobile health vans is needed.

At the District level, information on the hospitals, doctors with specialisation, staff, number of beds and other facilities will have to be obtained to complete the data requirement.

#### 3.4.2. Education

Data at the village level will be required on number and type of educational institutions, number and types of school buildings library facilities etc;

At the Block level, information on the details of the higher educational institutions would be an additional necessity. Similarly, at the district level

details about the higher technical, medical, post-graduate, fine arts, music, dancing, training etc. institutions will be needed to have a complete picture of the educational infrastructure available within the district.

#### 3.4.3. Drinking water :

Data required at the village level for any plan to provide this minimum need will include availability with distance of various sources of water supply with the number of population benefitted including the composition of the population showing S.C. & S.T. Besides, the past history with details of scarcity of water, quality of drinking water available, whether a problem village or not will also be needed for rural water supply planning.

At the district level, some more details on urban water supply and Drinking water supply projects will be of relevance. Other information on drinking water supply collected at the village level can be aggregated for Block and district.

#### 3.4.4. Transport and Communication :

At the village level, basic data on the availability of approach road, its type, distance from the National/ State high ways, major/ other district roads, Panchayat Samiti / Panchayat Roads and availability of bus connections (all wheather or fair weather) railway connections, distance from the nearest post and telegraph offices, Telephone connections would be useful for planning the rural communication facilities.

At the Block level, some additional information like number and location of railway stations, length of different types of roads with surface types, and number of telephone exchanges within the Block area will provide some idea about the infrastructural facilities available in this sector. At the district level, some more information on the length of different types of railway lines and availability of Ports and harbours, fishing jettis / harbours would be a useful data.

#### 3.4.5. Employment :

This is one of the most important items of information required to be made available to the District Planner for planning fuller employment for all categories of persons in rural areas. For manpower Planning in the rural areas, village-wise information on some important aspects like number of unemployed under each category of workers with male and female component in each, number employed of special categories like women, S.C., S.T., B.C. and handicapped, number of unemployed with their levels of education and details of under employed groups of persons, would be essential. This data is not readily available. Special surveys may be needed to collect it, though available information can be used for immediate purposes.

Besides this basic information, some details regarding the availability of vocational guidance and counselling at the Block level would

be helpful. At the level of the district, some details like facilities available for placement and for making people employable would also be useful for planning purposes. These details would include number of employment exchanges with number of job seekers registered, availability of craftsman and apprentice training programmes, status of SEEUY, number of migrant labour categorywise etc. Details on Overseas employment, if available, would also be useful.

#### 3.4.6. Power:

Rural electrification is one of the important plan programmes. Making available alternative sources of energy is also a priority programme in villages. For the purpose of proper planning of this sector for the rural areas, some information needs to be collected at the village level. It will include the status of electrification of the village with details of sector-wise consumption and committed load, availability of solar plants, type and use, windmills and their purpose, biogas plants with type and source of input, purpose etc.. Ownership details of these installations will also be needed.

#### 3.4.7. Housing:

For the purposes of planning for provision of housing facilities specially in rural areas, villagewise information on number of families without houses, those with house sites but not houses, and those without even house sites, is required. This can be aggregated for higher levels.



For the housing problems in slum areas under urban sector, some additional details on towns having slums with details like area, and population in each of the slum areas, would be necessary to be collected at the Block level and aggregated for district level.

#### 3.4.8. Industries:

Under this sector, village-wise information on small scale and cottage industries is required. The details of these industries, viz their number, total investment and the number of males/females employed would form the basic information for this sector. Besides, the above, category-wise details of Industrial cooperative societies, if any available in the village is also required to be maintained at the village level. These details would include, number of members in each such society, number of borrowing members, defaulters, amount outstanding/ over due, number employed in each etc; This information is to be collected directly from the institutions. Besides this, information on number of families benefitted under Govt. schemes would be useful.

This village-wise information can be aggregated for the Block level. But at the district level, some additional information on large and medium industries would be necessary. For industries under each category, information on the total investment, number employed, status of the industry, whether functional or sick are to be maintained at the district level.

### **3.4.9. Economic Services:**

Availability of various economic services at the village level is an indicator of the status of economic activity in the villages. It includes existing infrastructural facilities and their potential for further growth. These facilities may be categorised as follows:

- (i) Agricultural services
- (ii) Animal husbandry
- (iii) Pisciculture
- (iv) Fair price shops
- (v) Cooperative societies.

Under each of the above categories details like number and different types of service Centres/ depots/ farms/ shops are required to be maintained at the village level. In regard to Pisciculture, information about number of tanks under pisciculture, availability of fish seed/ manure/feed, production of fish, number of beneficiaries under these schemes etc., is required. In case of Cooperative Societies since they form the basic institutions of finance for various economic activities at the village level, details of their number, type, number of members, borrowing members, defaulters, amount outstanding/ overdue, number employed, if the society is not located in the village, then its distance etc., are essential for planning purposes.

At the Block level, some additional information on the Cooperative Societies like Primary land mortgage banks, Irrigation Societies etc. for which information is not collected at the village level, would be required to be

collected. Besides this, information about Institutional finance and banking facilities available and details like amount lent for agricultural and industrial purposes etc. would also be required. Similarly, for animal husbandry services, some additional information on meat processing units, Feed plants, number of slaughter houses etc. should be collected.

For the District level, information on different types of Apex Cooperative Societies and the details of their activities which are not covered at the Block level is required to be collected. Under this category will come, Central Cooperative Bank, Milk Union/Apex Handloom Society, Apex Fishery Society/Apex Handicraft Society, Land Development Bank etc. In regard to apex societies like Milk Union, Apex Fish Cooperative and Apex Handloom Cooperative, information about their collection/procurement, sale & employment is required to be collected at the district level.

#### 3.4.10. Miscellaneous Facilities :

At the village level, some basic information on the availability of recreation facilities, like cultural centres, play grounds, community centres reading room/library, child/women welfare centres etc. will be useful.

At the Block level, additional information on bal Bhawan/creches with their capacity, etc. should be collected. Similarly at the district level, information on institutions like Stadium, Olympic Association, Museum, Zoo, Art galleries etc. should be collected.

3.4.11. Judicial and Administrative Services :

Basic data on the number of Police Stations/ outposts, population covered etc. should be collected and maintained at the Block level. It can be aggregated for the district level.

3.5. DEMOGRAPHIC DETAILS :

3.5.1. Population :

This is an essential information needed at village, Block and district level for undertaking planning exercises at these levels. The details can be collected at the village level and aggregated for the Block and district levels. The details will include age group-wise number of males and females, S.C./S.T. population, migrant population, literates, number of farmers including break up of small and marginal farmers/number of births/deaths since last census, number of infant deaths in age group 0-1 year etc.. Besides this, information on S.C./S.T. families below poverty line will also be needed for planning poverty amelioration programmes.

Census will no doubt provide the basic data. But there is need for periodical up-dating of these figures through information on births, deaths, and emigration at the village level. But information on S.C./S.T. population below poverty line can only be obtained through special surveys/studies taken up periodically. Incidentally,

in view of the need for computerisation of data, for easier and quicker analysis, the Committee feels that it would be desirable to adopt a common coding for villages giving separate code number for each census village as part of a revenue village. Since one revenue village is generally divided into one or more census villages, this should be possible. Common coding would be advantageous for cross flow of information between different systems. Particularly, information from Census can easily flow to the District Planning office and vice versa. The Committee was given to understand that the Census organisation itself is not sticking to the same coding from census to census. This would not be conducive to proper information flow. There should be a finality to village coding. The Census of India could adopt the coding of 1981 census for 1991 census also. If for any reason this is not possible, they should devise a new code for 1991 census and adopt it for future census operations without change.

### 3.5.2. Livestock Details :

Information on cattle population is an equally essential ingredient for planning for the rural areas. The

The live stock census provides information every five years but inter census updating may be necessary. Information about number of different types of cattle and poultry should be maintained at village level and then consolidated for the Block and district levels. Agency of the Veterinary Department at the grass root level should be entrusted with the task of updating this data at the village level.

### 3.6. AGRO-ECONOMIC DETAILS :

Agriculture being the mainstay of the rural population and also their principal economic activity, the entire thrust of the grass root level planning will naturally be on this sector. Hence, it is absolutely essential to get reliable and up-to-date data on the status of agriculture and allied activities at the village level for a realistic assessment of the existing situation and the potential for future development. The villagewise information on land classification is the first requisite. Details like cropped area, yield, irrigation, potential created during different seasons, cropwise details of area cultivated, average yield etc. are required for detailed crop planning. Since waste land development has become an integral part of Planning, basic information on patches of waste land in different ranges like area below 1 Ha. area between 1 & 2 Ha. area between 2 & 4 Ha. and area above 4 Ha. will be very much needed at the village level, for taking up afforestation/pasture development. All this information which should be collected villagewise can be aggregated for the Block and district levels for agricultural planning at those levels.

Updated land classification details and cropwise statistics are also needed. Land utilisation surveys conducted by the State Statistical organisations provide necessary basic data. Village level agency of agricultural department would be the source of updated information. Further, new technologies available with agencies like NRSA, GSI, FSI etc. in this regard should be taken advantage of to get more detailed and accurate data.

### 3.7. Data on norms.

Apart from the data required for the village, Block and district level planning, as indicated in the preceding paragraphs, some derived data based on norms, both physical and financial would be necessary. This is for taking decisions on providing inputs in different sectors and at different locations with a view to ensure optimum growth and flow of benefit to the target group as per the objectives of the Plan. It would be necessary to assess the existing situation in regard to infrastructural facilities in a realistic manner through indicators and compare them with standard norms. These norms will vary for different activities and locations. For example, by comparing the agricultural production in different areas against some standard norm, a decision can be taken in regard to the inputs which need to be provided, their quality etc.. So will be the case for other development sectors for which certain standards or norms can be set for purpose of comparison and

for evolving a strategy to reduce the gap between the actual and normative positions. Thus norms are necessary to be adopted for identifying the functional needs of a study area. In the services sector, however, it is necessary to have two types of norms. One is the quantum of service input to be provided for specified number of people and secondly the spatial distribution of service locations. Here again, for existing indicator may have to be compared with one or both types of norms stated above. In the education sector for example, norms on population and distance would be different for primary, secondary and higher institutions of education.

There is of course no standard pattern to decide on the specific norms for all services or sectors, may be in the course of Block Planning an attempt can be made to identify these gaps and construct suitable norms as will be appropriate to local conditions.

Along with the Physical norms some financial norms would also be necessary to be worked out. Information on investments required for achieving the desired level of development would necessitate collection of information from different sources on location of activities, cost per unit of activity etc; These norms will of course vary in regard to location and the type and level of activities. For an effective plan formulation at whichever level it is desired a planner would need the basic information on different sectors as outlined in the foregoing chapters. In addition, he would



need to be guided with physical and financial norms for the functional needs of the area, which would be different from area to area, depending upon the location and type of services planned. This is an exercise which should be taken up at village / Block / District level simultaneously for each development sector of the economy.

### 3.8. Data requirement for the urban sector

Planning for urban areas in a district cannot be excluded from over-all District planning. Besides, in view of the rural - urban continuum, urban planning has to take into account the villages and blocks in the periphery of urban areas for the purpose of forward and backward linkages. It is true that urban planning may have to be viewed differently from rural planning. To facilitate proper planning for urban areas, the data needed for urban areas should also be collected and the District Plan should encompass development programmes required for the urban areas. The formats suggested by this Committee for collection of data provide for collection of data regarding urban areas as well. But to what extent urban planning will be taken up as part of District planning would depend on the policy to be adopted by the individual State Governments. The Working Group on District Planning had recommended that such of the towns in the district with a population of 10,000 or less should be covered

under District Planning. Perhaps the Working Group felt that the need of such towns may not be different from the needs of big villages. But since data would be collected for all urban areas according to the format recommended by this Committee, there is no reason why the District Planning cannot encompass all the urban areas of the district irrespective of the population. Anyway this Committee would not like to recommend a rigid policy regarding urban planning, namely, whether it should be part of District Planning or be separate from it, since such a recommendation would not be strictly germane to the terms of reference of this Committee. This could be left to the individual State Governments for decision as a regional variant.

### 3.9. Data Gaps :

As will be revealed against each of the items discussed in this Chapter, there exist some gaps in certain areas for which specific steps have to be taken for collection, compilation storage and regular flow of data to the Planning authorities at the district level with earmarking of the agency responsible for the same. Some of the specific areas where attention is to be focussed are summarised as follows :-

3.9.1. Under land utilisation/ classification data, crop-wise area, typewise irrigated area, number and areawise land holdings, road/ rail margins etc. at the village level are some of the items for which data is not available on a regular basis. Primary data must be collected and provision made for updating it every year.

3.9.2. Data about forest area according to classification of forests within the village boundaries or nearby are not available. Data of degraded forests under each category of forests should be made available for micro-level planning.

3.9.3 The potential for irrigation from each of the different classes of irrigation sources, based on a survey of water resources including availability of ground water, should be known for proper planning of irrigation.

3.9.4 Under socio-economic data set, it is necessary to know the number of small and marginal farmers among S.T. & S.C. separately. Similarly, the population below poverty line among S.T. & S.C. and others would also be required for planning poverty amelioration schemes. Data about the employment/unemployment position of skilled/unskilled labour, the educated unemployed, unemployment and under employment is needed. This would need separate surveys. The N. S. S. O. may have to be associated.

3.9.5. Another area where gap is identifiable is the income and consumption levels of population. Here also the N.S.S.O. can come to the assistance of the State Statistical Organisations.

3.9.6. Productivity can be worked out from the data on production. No doubt, this does not always give the correct picture. It is necessary to update the information through periodical surveys about the level of technology and productivity. There is no information about the inflows and outflows of goods and services at the district level. In fact, there is no reliable information about input and output even at the State level. The C.S.O. should evolve a methodology for regularly working this out.

3.9.7 A decision has long since been taken at the level of the Planning Commission as well as by the State Governments to compile District Income estimates to assess the impact of the implementation of several developmental programmes on the level of economic growth at the district level as also to assess the inter district disparity. This would serve as a useful indicator for policy formulation while drawing up district level plans. Gaps in basic data at the level of the district would be the main constraint in compilation of these estimates. These gaps relate to working force in different activities, inter-district migration of workers, ratio and proportion of different products and bye-products, districtwise production of fruits and vegetables, quantity and cost of various inputs in agricultural production, districtwise production and prices of Livestock products like milk, meat etc, forest statistics, production of fish according to type and size, districtwise data on mineral production,

construction, electricity, mechanised and non-mechanised transport, Trade, Hotel and restaurants and other services etc. All these may require special studies, sample surveys or routine collection by concerned departments or suitable reorientation of the usual surveys undertaken at the State or national level.

3.9.8 With the difficulties indicated above, the exercise of plan formulation for district and sub-district levels, is bound to have certain limitations. But, by and large, it should be possible to undertake micro-level planning with more confidence than at present if the suggestion for collection and periodic updating of the additional information as discussed in the foregoing paragraphs is adopted.

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CHAPTER - IV

MEASURES FOR MEETING THE DATA GAP  
AND IMPROVING THE INFORMATION SYSTEM

4.1 . In regard to collection of the primary and secondary data at each of the specified levels, we have seen that complete data is not available from any single source especially for sectors like irrigation, education, roads and forests. There is no nodal agency to compile the data on such items. As a result the data remains incomplete at any given point of time. For most of the other sectors, the required information is available from multiple sources which are responsible for implementation of the programmes in their respective fields. The data is kept by a plethora of organisations which collect it in different formats. There is a need for fixing a nodal agency for each item or group of items of information to be collected.

4.2.1. Under the existing system, the District Statistical agency, operating at the district levels is responsible for collection of certain primary and secondary data from different district level authorities of line departments and compiling it in a compact form. This forms the routine of collection and what is needed now is to enlarge

the scope of this exercise for planning purposes which in turn would require the development departments to suitably modify their structure and mode of collection of data. Certain data may have to be derived through inferences, the exercise for which could only be undertaken by the concerned departments, for passing on the data to the district planning authorities. Thus at the district level, the District Statistical agency and the District Planning authority will have to work in close cooperation with each other for developing a well integrated data base with wide coverage, attuned to micro-planning requirements.

4.2.2 Information as available at the village level, and Block level, at present is meagre and un-systematic. Some departments having extension agencies at Block level have not yet developed a regular system of timely reporting of basic data or data required for monitoring purposes. There is no separate statistical agency operating at the Block or lower level to coordinate the Statistical information. As a result, there is a serious information gap at the Block level. This poses a problem in presenting blockwise data under various sectors for planning purposes. As a short term measure, there is a need for the concerned Departments to evolve suitable methods of collection and reporting of quality data for planning and monitoring purposes.

4.2.3. Even after ensuring the availability of information from different departmental agencies through disaggregation for lower levels, there will still remain some gap in essential data required for realistic planning at the lowest level. Even in cases where there is no such gap, there is a time lag in getting the temporal data rendering the information unrealistic. This points out to the need for evolving a methodology for collection of relevant information required for micro-level planning with long term implications. A few of the measures may be outlined as follows:

(i) The data set for which considerable gap exists, as already identified should be prioritised in terms of its importance on the basis whether it is of general nature or specific for an area or it is a project level data requiring micro-level attention. In regard to the data for general need, collection of data with spatial connotation may be made by national agencies. For example, the N.S.S.O may consider suitably increasing the sample size and pooling of the State and Central samples for estimating socio-economic features at the district or lower level. Other national agencies like survey



of India, Geological Survey of India, National Atlas and Thematic organisation, National Bureau of Soil Survey and land use planning, Forest Survey of India, Central Ground Water Board etc., may provide the required information through their nationwide surveys and mapping. On the other hand the data about specific areas or projects can be collected in the required form by the concerned department. Some special studies/ surveys can also be undertaken by these agencies.

(ii) Collection of Village level information for planning and rural development may be synchronised with population census conducted by Census of India and land use survey by Survey of India, without duplicating the efforts.

(iii) In the matter of routine collection of information through multiple sources as at present a well knit single agency like the District Statistical Organisation in close collaboration with the District Planning Organisation can be entrusted with the responsibility of collection of information at the village, Block and District level, with the assistance of line Departments. A methodology for automatic flow of information for the purpose of updating and monitoring has to be ensured.

(iv) The mechanism of providing information should be synchronised with updating of these data. There is some data which though being collected on a regular basis, is so done with considerable time lag, due to which its relevance is lost to a great extent. It should be possible to update such data once in five years rather than the present period of ten years. This can be achieved with the help of the modern technology like remote sensing, computerised processing etc.

4.3 Taking an overall view of the system in the context of the need for more prompt and more relevant data for economic and social policy formulation, some immediate steps for restructuring of the data collecting and reporting machinery both at the Central and State level is necessary to suit to the needs of the time.

#### NIC and DISNIC:

4.4.1 With the requirement of voluminous data at each level, the traditional sources of data and the traditional mode of their collection, compilation and processing are bound to be a constraint, defeating the very purpose of the exercise. In recent years, there has been rapid advancement in the technology of data processing which has necessitated reorganisation and modernisation of the statistical cells and organisations, responsible for data handling. Traditional method of

compilation and computation are fast getting replaced by computerised systems. Other technological tools which are now available include aerial photographs, satellite imagery etc. Topo sheets of Geological survey of India, interalia, also constitute a useful source of information on the natural resources of an area. The District Information Systems being set up in each district by NIC with a super PC-AT computer for data handling at the district level could work in close linkage with the sophisticated data sources like the National Remote Sensing Agency and its Regional Centres, the survey of India and its aerial photo interpretation units including Indian Photo Interpretation Institute, Dehradun, the Geological Survey of India, Ground Water Survey Board, Soil Survey Institutes at the National and State levels and Land use Boards and other institutions dealing with land use. A note explaining the role of NIC in storage, processing and retrieval of data at District level through DISNIC and its potential is enclosed at Annexure VII.

4.4.2 An important point requiring consideration at the initial stage at the district level is about information required to be fed and stored in the computer for use in district planning and the procedure for updating it. Three different sets of formats have been recommended by this Committee, the information covering which has to be fed into the District Computer. It would be necessary to have a data base file covering all

villages so that aggregation of information for the villages of a Grampanchayat or Block or District as a whole is possible and any combination could be worked out depending on whether the plan will be for any part of the district or the district as a whole. It should be considered if on line computerisation of the Census data could not be done in 1991 so that a quick analysis of such data can be undertaken on the one hand and the District Information System can have the latest data particularly on demography for planning on the other.

4.4.3 Cartographic presentation of the district profile showing selected themes is an essential input for spatial planning. This can also be done through computers using computographic technology. The coordinates of villages can be digitised and thematic information can also be fed to the computer after digitisation to produce thematic maps through computographics.

4.4.4. It would, therefore be useful to adopt modern tools like computers as discussed in the foregoing paragraphs for handling the voluminous data in the shortest possible time with easy access to user agencies. Data so collected should no doubt have a high degree of accuracy for usefulness in plan formulation.

4.4.5. The Remote Sensing Application Centres are using, in addition to topo sheets, aerial photographs and satellite imagery grid and they could provide this information gridwise for all natural resources like water, forests, agriculture, land, soil, rocks and

minerals, and ground water. Since the grids cover vast areas, for micro-level planning, it would be difficult to get the gridwise data to provide information at the Grampanchayat and village level. They may serve to a certain extent the requirements for planning at district level.

#### 4.5.1. C R I S P

Prior to the establishment of District Computer Centres by N I O, mini-computer centres were set up in all the District Rural Development Agencies for developing a data base for rural development programmes at the district level under the Computerisation of Rural Information System Project (CRISP).

Its principal functions are to

- (i) provide an easy method of generating various reports prescribed by the State and the Centre.
- (ii) create a basic record of beneficiaries and works under rural developmental programmes and
- (iii) gather information about villages for planning application.

This computerisation project covers the schemes which are in operation in the districts like IRDP, NREP, RLEGP and Rural drinking water supply. The entire programme of computerisation helps in disseminating information on the achievements as against the targets fixed under each of the above programmes. Thus it provides a scope for monitoring of the programmes undertaken at the State and District level, besides showing a village level data base for planning purposes in the context of

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\* Since merged into Jawahar Rozgar Yojana. (JRY)

the poverty amelioration programmes as above.

A note on CRISP is enclosed at Annex VIII.

4.5.2. NRDMS

The project on the Natural Resources Data Management System (NRDMS) has been undertaken in ten selected districts of the country on a pilot basis for evolving an appropriate methodology for collection, collation, storage, analysis and retrieval of data on natural resources for selected districts. This has also the broad objective of evolving standardised formats for collection of data on natural resources and socio-economic aspects. This data is being collected through various agencies in the districts for utilisation in planning at various levels and establishing a computerised monitoring system for evaluation of development projects and programmes during execution. The NRDMS will thus have the village, Block and District level data on natural resources collected in specially designed formats, for a few selected districts. This project would be appropriate for preparing applications software for specific exercise as part of district planning including monitoring and evaluation. However, it is necessary for providing free flow of information between DISNIC, CRISP & NRDMS. To facilitate this, these three projects should adopt a common code number for different items. Also they could use the same format for that part of information which is common as between all of them. A note on NRDMS is enclosed at Annex IX.

4.5.3 Some State Governments have also developed their own system for managing information for micro level planning. The Committee feels that such duplication is unnecessary and avoidable since DISNIC would be covering all the districts and the management of information could be left to the DISNIC. This will ensure uniformity on the one hand and economy on the other.

4.5.4. As discussed in the foregoing paragraphs, the National Informatics Centre (NIC) who have developed the DISNIC with a country-wide network, should assist the District Planning Office in the entry and processing of all data at the district headquarters for the purposes of plan formulation at micro levels. For this purpose they should exclusively provide one terminal of the PC-AT of the District Computer Centre with required extension facilities to the District Planning office. Similarly they should provide another terminal exclusively for the District Statistical Office to facilitate flow of information from the District Statistical Office to the District Planning Office and vice versa. The primary data would be collected by the District Statistical Office, but up-dating with monitoring data will be done by the District Planning office and this will be used for up-dating of the primary data by the District Statistical Office. Suitable arrangements are to be made by them for training of the personnel at different levels belonging to line

Departments, on computer as also in maintaining the quality and timeliness of the data flow. CRISP could devote its computer net work for regular monitoring of poverty alleviation programmes. It could feed its data to DISNIC for up-dating plan information on poverty alleviation programmes. NRDNS could continue as a pilot project for developing suitable application software and evolve methods for storage and retrieval of more sophisticated data on natural resources so that, wherever it is available DISNIC could use it as plan information.

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CHAPTER - V

SUMMARY OF RECOMMENDATIONS

5.1 Unit:

Village should be treated as the basic unit for collection of data, though data may have to be collected at Block/District level, in certain cases, where it cannot be had at village level (e.g) Railways, roads, Reserved forests, irrigation projects etc. If, in any State, the Administrative Unit is known by a nomenclature other than village like (e.g) 'Kara' in Kerala State, that Unit will be the basic Unit for collection of data. In the case of urban areas, the corresponding Unit will be the Ward. (Para 1.11)

5.2 Data Collection and Processing:

5.2.1. (i) Formats for data collection needed to be devised keeping in view the distinction between planning, monitoring and evaluation requirements. As such, the proforma could be divided into three data base files namely (i) Plan information data, (ii) data for monitoring (iii) data for evaluation. However, they can be built in such a way that any particular data for any particular purpose can be retrieved from the system to be devised.

(ii) Basic data which is needed to be collected for planning at the unit level with facility for aggregation need not be changed too frequently and it may have a particular reference period. However, it may be updated after every year or so.

(iii) Data for monitoring would require to be collected monthly, fortnightly or even weekly. On the basis of this data the data base file on plan information could be updated once a year.

(iv) Collection of derived information from facts available to the Surveyors for obtaining information like "Potentials" etc. would form part of data collection on the basis of queries made on the spot and judgement made by the data collectors. For this, the nodal agencies and the sources of data should be identified. (Para 1.12)

5.2.2. For the data requirement at the District level in respect of unemployment, poverty population and consumer expenditure, the three major data inputs for District level planning the possibility of utilizing N.S.S. data after adequate increase of sample size or restructuring of the design by pooling of Central and State samples to arrive at fairly reliable district-wise estimates may be examined. ( Para 1.12)

5.2.3. Data processing may have to be computerised to reduce time lag and facilitate retrieval of data. It is, therefore, necessary that formats are to be developed by N.I.C. for data processing through DISNIC, with national information net work with terminals, keeping in view the data requirement at various levels for micro level planning. (Para 1.12)

5.2.4. A mechanism should be evolved to bring about coordination in data management between the Central Statistical Organisation and the State Statistical Bureaus, NRDNS, NIC and other concerned institutions. At the State level, the newly constituted NIC Coordination Committee and similarly at the district level, the NIC District Co-ordination Committee can ensure this coordination, but there is a need for an Apex Coordination Committee at the National level. The Planning Commission could constitute such a Committee under the Chairmanship of Secretary/Special Secretary, Planning Commission and with the Heads of all Data Source Agencies and representatives of a few State Governments as members. In the alternative, the National Level Steering Committee on DISNIC could be enlarged to include the Heads of the Data Source Agencies and representatives of a few States as Members. (Para 1.12)

5.2.5. The National Informatics Centre (NIC) who have developed the DISNIC with a country-wide net work, should assist the District Planning Office in the entry and processing of all data at the district headquarters for the purposes of plan formulation at

micro levels. For this purpose they should exclusively provide one terminal of the PC-AT of the District Computer Centre with required extension facilities to the District Planning office. Similarly they should provide another terminal exclusively for the District Statistical Office to facilitate flow of information from the District Statistical Office to the District Planning Office and vice versa. The primary data would be collected by the District Statistical Office, but up-dating with monitoring data will be done by the District Planning Office and this will be used for up-dating of the primary data by the District Statistical Office. Suitable arrangements are to be made by them for training of the personnel at different levels belonging to line Departments, on computer as also in maintaining the quality and timelines of the data flow. CRISP could devote its computer net work for regular monitoring of poverty alleviation programmes. It could feed its data to DISNIC for up-dating plan information on poverty alleviation programmes. NRDMS could continue as a pilot project for developing suitable application software and evolve methods for storage and retrieval of more sophisticated data on natural resources so that, wherever it is available DISNIC could use it as plan information. ( Para 4.5.4)

### 5.3 Information System

5.3.1. The Statistical information made available by the Statistical organisations in the States and also

by other Departments of State Governments has to be examined with reference to the methodology of collection to see to what extent it can be adopted qualitywise and quantitywise to lower levels of territorial disaggregation to be of use for micro level planning. The study has accordingly to be confined to the data available from the State level agencies, since only that would be relevant for the District or sub-district level planning. (Para 2.1.1)

5.3.2 . All the information being collected under the village index card system, and the own schemes of the State Governments are inadequate to meet the needs of planning at the level of a village or group of villages. So instead of duplicating the efforts of collection of data at village level in different forms, comprehensive information at village level may be collected in the format recommended in para 3.3.2. ( Para 2.1.2)

5.3.3 A regular system of flow of this (Monitoring) data to the D.E.S. should be evolved. Perhaps, the District Planning office which gets this data in the normal course of plan monitoring at the district level from different District level officers of line Departments, could it self use this data for up-dating the plan information, so that it can be picked up by the District Statistical Office, and Director, Economics & Statistics through DISNIC. ( Para 2.2.2)

5.3.4. Generally the District Soil Conservation Officers keep their plan information on water shed basis. But it should be possible to break this information down villagewise and furnish it to the District Planning Office with necessary cross referencing of the water shed code number, so that data can be used either on village basis or on water shed basis as may be required in any particular case. (Para 2.5.4)

5.3.5. There may be certain local resources like mineral deposits or quarries, large water resources, including underground water resources, information about which would be useful for the District and Block level planners. Though such type of information may also be available from the Geological Survey of India or the State Mining and Geology Department such information is generally for large areas. Data like type and extent of minerals, water resources etc. for micro areas such as Blocks may, therefore, have to be collected. (Para 2.5.5)

5.3.6. The Urban Development Department of State Governments generally implement drinking water supply schemes both for rural and urban areas. For urban areas, the supply is effected through the Municipalities and N.A.Cs. There is no problem regarding availability of information about these schemes. In regard to rural water supply schemes there are public health Engineering personnel in all the Blocks who implement water supply schemes

in problem villages. They can give required information village-wise. Of course revenue village-wise information on drinking water supply may not be enough as the facilities should have a bearing on all habitations, (i.e.) the hamlets as well. Information in regard to population and availability of drinking water facilities in hamlets is also essential for proper planning. Further, in certain areas, the statistics relating to drinking water facilities is maintained by two separate agencies who are in charge of implementation of the schemes. The Block Development Officer is in-charge of provision of sanitary and open wells whereas the public Health Engineering Staff are in-charge of sinking tube wells. As a result, the Public Health Engineering personnel may not have the complete data on drinking water facilities in the Block area. But the data available with Public Health Engineering Department and Block Development Officer can be posted to get a complete picture of the status of drinking water supply facilities in the Block area and for formulation of an effective plan vis-a-vis the identified problem villages as per the norms fixed. (Para 2.6.3)

5.3.7. For planning the utilisation of electricity for various purposes in the villages, though some information is available from the electricity offices in the area, bifurcation of purpose-wise and village-wise data would be essential. ( Para 2.6.5)

5.3.8. The (Census) details become outdated due to the long gap for re-enumeration. Mid-year details are required to be obtained either through known procedure of estimations or through some special surveys undertaken for the purpose. D.R.D.A and other agencies do undertake such survey to meet the gap.(Para2.7.1)

5.3.9 The data needs for manpower planning can not be fully met with the data as at present available and special surveys would be called for. However, available data can be used for immediate planning. ( Para 2.7.2)

5.3.10. For meeting the information gap on some other specified items, it may be necessary to undertake special studies and sample surveys either separately or alongwith routine studies/surveys.(Para 2.7.3)

5.3.11. In regard to village-wise information on land utilisation and agricultural activity, it takes the District Statistical agency 5 years to cover all the villages in the State due to the ceiling limit of 20% villages for every year. There is, therefore, a need for supplementing the data on land classification and use, cropping pattern, yield rate and production with that from the district and block agricultural authorities. (Para 2.8.4)



5.3.12. The data (under Forestry sector) required at the district, Block or village level may have to be collected from the Forest Department with addition or subtraction or through special surveys conducted by other agencies like NRSA. (Para 2.8.8)

5.3.13. Existence of a delicate eco system in his area should be made known to the district planner. Only then he can ensure that there is no disturbance to the eco system and consequent deterioration of ecology and environment. The Committee feels that data about delicate eco systems should be pooled at the National or State level and made available to the District Planner through DISNIC. NIC themselves could get this data from the Ministry of Environment and Forest or the Union Department of Science and Technology, and feed it into DISNIC so that the District Planner is made aware of the details with the help of the software to be devised by NIC for him. ( Para 2.8.9)

5.3.14. For assessing the quality of data collected through survey, ( on socio -economic aspects conducted by DRDA) some sample checks for matching the results would be required. ( Para 2.9.2)

#### 5.4. Data requirement :

5.4.1. Besides the basic data on different aspects which would need to be identified and collected for each of the specified levels, some derived data also needs to be maintained. Periodical up-dating of this data is another essential pre-requisite for an efficient data management system to be developed at the district level. Some data

would require up-dating on a regular basis, while for some it would be adequate if it is done in longer spans of say five years. (Para 3.2)

5.4.2. For the purpose of collection and maintenance of data for planning at each of the levels i.e., village, Block and the district, the six data sets recommended by the working group can be regrouped into three broad categories. These categories are (i) Infrastructure details relating to data on basic amenities (ii) Demographic details relating to Census data on population and livestock and (iii) Agro-economic details relating to Census data on irrigation, agriculture, forestry, land use etc. (Para 3.3.1.)

5.4.3. In regard to collection of the primary and secondary data at each of the specified levels, we have seen that complete data is not available from any single source especially for sectors like irrigation, education, roads and forests. There is no nodal agency to compile the data on such items. As a result the data remains incomplete at any given point of time. For most of the other sectors, the required information is available from multiple sources which are responsible for implementation of the programmes in their respective fields. The data is kept by a plethora of organisations which collect it in different formats. There is a need for fixing a nodal agency for data items or groups of items of information to be collected.

5.4.4. Basic data as identified to be collected at the village, Block and District levels for the micro-level planning in respect of provision of Drinking water supply, Transport and Communication, Employment, Power, Housing, Industries, Economic Services and other miscellaneous facilities should be collected in the formats, recommended by the Committee. ( Para 3.4.2 to 3.4.10 )

5.4.5. (Demographic) details will include age-group-wise number of males and females, SC/ST population, migrant population, literates, number of farmers/small farmers/marginal farmers, number of births/deaths since last Census, number of infant death in age group 0-1 year etc. Besides these information on SC/ST families below poverty line will provide a very useful information for planning poverty amelioration programmes. Census will no doubt provide the basic data. But there is need for periodical up-dating of these figures through information on births, deaths, and emigration at the village level. But information on S.C/S.T. population below poverty line can only be obtained through special surveys/studies taken up periodically. Incidentally, in view of the need for computerisation of data for easier and quicker analysis, the Committee feels that it would be desirable to adopt a common coding for villages giving separate code number for each census village as part of a revenue village. Since one revenue

village is generally divided into one or more census villages, this should be possible. Common coding would be advantageous for cross flow of information between different systems. Particularly, information from Census can easily flow to the District Planning office and vice versa. The Committee was given to understand that the Census organisation itself is not sticking to the same coding from census to census. This would not be conducive to proper information flow. There should be a finality to village coding. The Census of India could adopt the coding of 1981 census for 1991 census also. If for any reason this is not possible, they should devise a new code for 1991 census and adopt it for future census operations without change. (Para 3.5.1)

5.4.6. The live stock census provides information every five years but inter census updating may be necessary. Information about number of different types of cattle and poultry should be maintained at village level and then consolidated for the Block and district levels. Agency of the Veterinary Department at the grass root level should be entrusted with the task of updating this data at the village level. ( Para 3.5.2)

5.4.7. (For land classification details and crop-wise statistics) new technologies available through the agencies like NRSA, GSI, FSI etc. should be taken advantage of. ( Para 3.6)

5.4.8. Apart from the data required for the village Block and District level planning, some derived data

on norms, both physical and financial would be necessary for taking decisions on providing inputs in different sectors and at different locations with a view to ensure optimum growth and to provide benefit to the target groups as per the objectives of the plan. It would therefore be necessary to assess the existing situation in regard to infrastructural facilities in a realistic manner through indicators and compare them with standard norms. These norms will vary for different activities and locations. These norms are necessary for identifying the functional needs of the study area. This (developing physical and financial norms) is an exercise which should be taken up at village/Block/District level simultaneously for each development sector of the economy. (Para 3.7)

5.4.9. The data needed for urban area should also be collected and the District Plan should encompass development programmes required for the urban areas. The formats suggested by this Committee for collection of data provide for collection of data regarding urban areas as well. But to what extent urban planning will be taken up as part of District Planning would depend on the policy to be adopted by the individual State Governments. The Working Group on District Planning had recommended that such of the towns in the district with a population of 10,000 or less should be covered under District Planning. Perhaps the Working Group felt that the need of such towns may not be different from the needs of big villages. But since data would be collected for all urban areas according to the format recommended

by this Committee, there is no reason why the District Planning cannot encompass all the urban areas of the district irrespective of the population. Any way this Committee would not like to recommend a rigid policy regarding urban planning, namely whether it should be part of District Planning or be separate from it, since such a recommendation would not be strictly germane to the terms of reference of this Committee. This could be left to the individual State Governments for decision as a regional variant. (Para 3.8)

#### 5.5. Data Gaps.

5.5.1. Under land utilisation/classification data, crop-wise area, typewise irrigated area, number and areawise land holdings, road/rail margins etc. at the village level are some of the items for which data must be collected and provision made for updating it every year. (Para 3.9.1)

5.5.2. Data of degraded forests under each category of forests within the village boundaries should be made available for micro level planning. (Para 3.9.2)

5.5.3. The potential for irrigation from each of the different classes of irrigation sources based on a survey of water resources including availability of ground water, should be known for proper planning of irrigation. (Para 3.9.3)

5.5.4. Under socio-economic data set, it is necessary to know the number of small and marginal farmers among ST & S.C. separately. Similarly the population below poverty line among S.T. & S.C. and others would also be required for Planning Poverty amelioration schemes. Data about the employment/unemployment position of skilled and unskilled labour, the educated unemployed, unemployment and under employment is needed. This would require separate surveys. The NSSO may have to be associated. (Para 3.9.4)

5.5.5. Another area where gap can be identified is the income and consumption levels of population. Herein also the N.S.S.O can come to the assistance of the State Statistical Organisations. (Para 3.9.5)

5.5.6. There is no information about the inflows and outflows of goods and services at the district level. The C.S.O. should evolve a methodology for regularly working this out. (Para 3.9.6)

5.5.7. All these (data) may require special studies, sample surveys or routine collection by concerned Departments or suitable reorientation of the usual surveys undertaken at the State or national level. (Para 3.9.7)

5.6. Meeting the Data Gap

5.6.1. At the district level, District Statistical Agency and the District Planning authorities will have to work in close cooperation with each other for developing a well integrated data base with wide coverage attuned to micro planning requirements. (Para 4.2.1.)

5.6.2. As a short term measure, there is a need for the concerned Departments to evolve suitable methods of collection and reporting of quality data for planning and monitoring purposes.

(Para 4.2.2)

5.6.3. A few of the measures (for long term) may be outlined as follows:

(i) The data set for which considerable gap exists, as already identified should be prioritised in terms of its importance on the basis whether it is



of general nature or specific for an area or it is a project level data requiring micro-level attention. In regard to the data for general need, collection of data with spatial connotation may be made by national agencies. As for example, the N.S.S.O may consider suitably increasing the sample size and pooling the State and Central samples for estimating socio-economic features at the district or lower level. Other national agencies like Survey of India, Geological Survey of India, National Atlas and Thematic organisation, National Bureau of Soil Survey and land use planning, Forest survey of India, Central Ground Water Board etc., may provide the required information through their nationwide surveys and mapping. On the other hand the data about specific areas or projects can be collected in the required form by the concerned department. Some special studies/surveys can also be undertaken by these agencies.

(ii) Collection of village level information for planning and rural development may be synchronised with population census conducted by Census of India and land use survey by Survey of India, without duplicating the efforts.

(iii) In the matter of routine collection of information through multiple sources as at present, a well knit single agency like the District Statistical Organisation in close collaboration with the District Planning Organisation can be entrusted

with the responsibility of collection of information at the village, Block and District level, with the assistance of line Departments. A methodology for automatic flow of information for the purpose of updating and monitoring has to be ensured.

(iv) The mechanism of providing information should be synchronised with updating of these data. There is some data which though being collected on a regular basis is so done with considerable time lag, due to which its relevance is lost to a great extent. It should be possible to update such data once in five years rather than the present period of ten years. This can be achieved with the help of the modern technology like remote sensing, computerised processing etc. (Para 4.2.3)

5.6.4. The District Information System, being set up in each district by the NIC should work in close linkage with the sophisticated data sources like the NRSA and its regional centres, the Survey of India and its aerial photo interpretation units including Indian Photo Interpretation Institute, Dehradun, the Geological Survey of India, Ground Water Survey Board, Soil Survey Institute at the National and State levels etc. and land use Boards and after Institutions dealing with land use. (Para 4.4.1)

5.6.5. It would be necessary to have a data base file covering all villages so that aggregation of information for the villages of a Grampanchayat or Block or District as a whole is

possible and any combination could be worked out depending on whether the plan will be for any part of the district or the district as a whole. It should be considered if on line computerisation of the Census data could not be done in 1991 so that a quick analysis of such data can be undertaken on the one hand and the District Information System can have the latest data particularly on demography for planning on the other. (Para 4.4.2.)

5.6.6. The Remote Sensing Application Centres are using, in addition to topo sheets, aerial photographs and satellite imagery grid and they could provide this information gridwise for all natural resources like water, forests, agriculture, land, soil, rocks and minerals, and ground water. Since the grids cover vast areas, for micro-level planning, it would be difficult to get the gridwise data to provide information at the Grampanchayat and village level. They may serve to a certain extent the requirements for planning at district level. (Para 4.4.5)

5.6.7. Some State Governments have also developed their own system for managing information for micro level planning. The Committee feels that such duplication is unnecessary and avoidable since DISNIC would be covering all the districts and the management of information could be left to the DISNIC. This will ensure uniformity on the one hand and economy on the other. (Para 4.5.3))

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ANNEX - I

No. PC(P)27/Study Group/88-MLP  
Planning Commission  
(MLP Division)

Yojana Bhavan  
Sansad Marg  
New Delhi-110 001

9th September, 1988

ORDER

OFFICE MEMORANDUM

Sub: Constitution of the Study Group on Information Gap.

In the meeting convened on 6th July, 1988 to discuss the issues connected with district planning, it was decided to set up a Study Group on Information Gap to develop the future course of action including synthesising of expertise of various organisations in the field of computerised information generation based on review of actual progress made in this field.

The composition of the Study Group will be as follows:

1. Shri P.B. Krishnaswamy Chairman  
Special Secretary  
Planning Commission
2. Dr. N. Seshagiri, Director General Member  
National Informatic Centre  
Planning Commission  
A-Block, CGO Complex  
Lodi Road, New Delhi
3. Dr. M.N. Qureshi, Adviser (SPG) Member  
Deptt. of Science and Technology  
Technology Bhavan  
New Mehrauli Road, N. Delhi-16
4. Dr. L.R.A. Narainan Member  
Associate Prof.  
National Remote Sensing Agency  
(Deptt. of Space, Balanagar)  
Hyderabad-500032-Andhra Pradesh
5. Shri Mukul Sanwal Member  
Administrative Training Institute  
Nainital (UP)
6. Shri S. Sunderarajan Member  
Addl. Development Commissioner  
and Secretary Planning  
Government of Orissa  
Bhubaneswar.

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7. Shri V.R.S. Cowlagt, Planning Secretary Member  
Government of Gujarat, Gandhinagar
8. Shri R.V. Pillai, Planning Secretary Member  
Goveenment of Meghalaya, Shillong
9. Sh. G.V. Krishnamoorthy, Plg. Secretary Member  
Government of Kerala, Trivandrum
10. Shri G.V. Viswanath, Planning Secretary Member  
Government of Karnataka, Bangalore
11. Shri Arun Sinha  
Jt. Secretary (State Plan) Convenor  
Planning Commission, N. Delhi

The terms of reference of the study Group are as follows :

1. To review the actual position prevailing in the States including the contribution of various agencies involved in the field of information.
2. To synthesiss and evolve an information system as adjunct to planning.
3. To prescribed role of various organisations and work out time frame and phasing of development.
4. Any other matter connected with bridging of information gap.

The meetings of the Study Group will be ordinarily held in New Delhi.

The Chairman of the Group may co-opt. any other person(s) whose services may be deemed necessary.

Official members of the group will draw their TA/DA from their respective Government /Offices to which they belong. Non-official members and special invitees of the Group will be paid TA/DA by the Planning Commission as admissible to Grade I Officers of the Government of India.

The group may submit its report by 30th November, 1988.

Sd/. J.C. Dangwal  
Director (Administration)

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ANNEX - II

No.PC(P)27/Study Group/88-MLP  
Planning Commission  
(MLP Division)

Yojana Bhavan,  
Sansad Marg  
New Delhi - 110 001

September 26, 1988

ORDER

Subject : Constitution of Study Group on Information Gap

In continuation of this office order of even number, dt.9th Sept., 1988 regarding constitution of Study Group on Information Gap, it has been decided to include Dr.Uddesh Kohli, Adviser(Energy and Monitoring), Planning Commission, as a Member of the Group.

It is also notified that Shri M.Shankarnarayanan has been nominated as Member of this Group in the capacity of Secretary (Planning), Govt. of Karnataka, in place of Shri G.V.Vishwanath.

Sd/- J.C.Dangwal  
Director(Admn.)

No.PC(P)27/study Group/SS\_MLP  
 Planning Commission  
 (MLP Division)

...

Yojana Bhavan  
 Sansad Marg  
 New Delhi

17th Oct., 1988

ORDER

Sub: Constitution of Committee of the Study Group on Information Gap.

In the first meeting of the Study Group on Information Gap, constituted by the Planning Commission, vide its order of even number, dt.9th September, 1988, held on 4.10.1988 under the Chairmanship of Sri P.B. Krishnaswamy, Special Secretary, Planning Commission, it was decided to set up a Committee to study in depth some of the issues relating to information gap in the context of District Planning.

2. Accordingly, a Committee consisting of the following is constituted by the Chairman of the Study Group :

- |   |          |
|---|----------|
| 1. Shri S. Sundararajan,<br>Development Commissioner<br>and Special Secretary (Planning),<br>Govt. of Orissa, Bhubaneswar                               | Chairman |
| 2. Shri Mukul Sanwal,<br>Director,<br>Administrative Training Institute,<br>Janital (U.P.)  | Member   |
| 3. Dr. M. Monti,<br>Principal Systems Analyst,<br>National Informatics Centre,<br>Planning Commission,<br>A-Block, CGO Complex,<br>Lodi Road, New Delhi | Member   |
| 4. Prof. R. N. Tripathy,<br>Director,<br>Centre for Micro Planning<br>National Instt. of Rural Development<br>Hyderabad                                 | Member   |
| 5. Shri R. P. Katyal,<br>Jt. Director,<br>National Accounts Division,<br>Central Statistical Organisation,<br>Sardar Patel Bhavan, New Delhi.           | Member   |
| 6. Shri Arun Sinha, Jt. Secretary (JF),<br>Planning Commission, New Delhi.  | Convenor |

(v)

3. The terms of reference of the Committee are to examine in depth the following issues :

1. Information required for planning purposes at different levels ;
2. Status of availability of requisite information ;
3. Identification of information gap ;
4. Based on planning requirements, the kind of information format that can be developed ;
5. Any other relative issue.

The meetings of the Committee will ordinarily be held in Delhi.

4. Official members of the Committee will draw their TA/DA from their respective Government offices to which they belong. Non-official members of the Committee will be paid TA/DA by the Planning Commission as admissible to the Gr.I Officers of the Govt. of India.

5. The Committee may submit its report by the middle of December, 1988 for consideration of the Study Group.

Sd/-  
( J.C.Dangwal )  
Director (Admn.)



INFORMATION NEEDS

Data requirement at village level for the microlevel planning

The requirements must be classified into the following details :

- I INFRASTRUCTURE DETAILS (Data on basic amenities)
- II DEMOGRAPHIC DETAILS (Census data on population, livestock)
- III AGRO-ECONOMIC DETAILS (Census data on irrigation, agriculture, forestry, land use etc.)

I INFRASTRUCTURE DETAILS

1. HEALTH

Basic data

1.1. Village health guide available (y/n) ?  
If yes in 1.1

- a. Number of compounders
- b. Number of midwives/nurses

1.2. Distance from nearest

- a. Primary Health Centre
- b. Additional PHC
- c. Sub Centres
- d. Medical shop

1.3. Personnel (number)

- i. Private Doctors (reg.)

1.4. No. practising indigenous system of medicine for each of the following types :

- i. Ayurvedic
- ii. Homeopathic
- iii. Unani
- iv. Others

Others data

1.5. Past epidemic details (last 5 years) for each type of epidemic diseases :

- i. Population affected
- ii. Area affected

Epidemic types :

- a. Cholera
- b. Jaundice
- c. Dysentery and Diarrhoea etc.

The epidemic details for each type to be coded

## 2. EDUCATION

### Basic data

#### 2.1. Educational institutions(number)

- i. Anganwari(pre-primary)
- ii. Primary school
- iii. Middle school
  - a. Boys school
  - b. Girls school
  - c. Co-education
- iv. Secondary school
  - a. Boys school
  - b. Girls school
  - c. Co-education.

#### 2.2. Primary school building

The details to be kept for each type are :

- i. Number of buildings
- ii. Number of classes
- iii. Number of rooms

The following are the types of buildings :

- a. Kuccha
- b. Pucca
- c. Kuccha with asbestos roof
- d. Kuccha with tiled roof
- e. Pucca with slab roof
- f. Pucca with asbestos roof
- g. Others (specify)

#### 2.2. Secondary school building

The details to be kept for each type are

- i. Number
- ii. Number of classes
- iii. Number of rooms

The following are the types of buildings :

- a. Kuccha
- b. Pucca
- c. Kuccha with asbestos roof
- d. Kuccha with tiled roof
- e. Pucca with slab roof
- f. Pucca with asbestos roof
- g. Others (specify)

The Primary and Secondary school building details to be coded with respect to the type of building

#### 2.3. Library facilities (number)\*

- i. Library with reading room
- ii. Library without reading room

2.4. No. of school going childrens in age group 5-14 yrs.

- i. Boys
- ii. Girls

3.

DRINKING WATER

Basic data

3.1. No. of sources and population benefitted by each of the sources with break up of S.C & S.T and total.

The various sources are:

- i. Ordinary wells
- ii. Hand pumps
- iii. Piped water supply \*
  - a. No. of domestic connections
  - b. No. of stand posts.
- iv. Other sources

3.2 Any hamlet without sources and its population, with break up of S.C., S.T and total.

Other data

3.3 History of past drinking water scarcity (last 5 yrs.)

3.4 Whether affected by scarcity (y/n) ?  
If yes -

- i. Months during which scarcity occurs
- ii. Reasons for scarcity
- iii. Loss in the quantity of water.

3.5 Whether problem village ( y/n) ?  
If yes,

- i. Quality of drinking water with reference to
  - a. Fluorosis
  - b. Iron
  - c. Guinea worms
  - d. Salinity
  - e. Other causes
- ii. Distance of the nearest source

4.

TRANSPORT

Basic data

4.1. Approach road (y/n) ?  
If yes -

- i. All weather road with type of the road
- ii. Fair weather road with type of the road

The various types are:

- a. Black top
- b. Metal road
- c. Murrak road
- d. Earthen soil road

(ix)

The approach road with type of the surface to be coded

4.2. Distance from nearest (shortest distance by existing roads)

- i. National Highway
- ii. State Highway
- iii. Major District Road
- iv. Other District Road
- v. Classified village Road
- vi. P anchayat Samiti Road
- vii. P anchayat Road

4.3. Bus connections available (y/n) ? \*

If yes

- i. Throughout the season ?
- ii. If seasonal, which months ?

The months to be coded as :

- a. Between 0-2 months
- b. Between 0-4 months
- c. Between 4-6 months
- d. Between 6-8 months
- e. Between 8-10 months

4.4. Railway connection available (y/n) ? \*

## 5. COMMUNICATION

Basic data

5.1. Distance from the nearest

- i. Branch office
- ii. Sub post office
- iii. Post office
- iv. Telegraph office

5.2. Telephone facility available (y/n)? \*

## 6. EMPLOYMENT

Basic data

6.1. Number employed for each category of workers with male and female for each

The categories are

- i. Agricultural labourers
- ii. Marginal farmers
- iii. Small farmers
- iv. In livestock, forestry and fishing
- v. Inter farmers
- vi. Rural artisans
- vii. Carpenters, Blacksmith, Weavers, Potters
- viii. In household industry

(x)

- ix. In manufacture other than household industry
- x. In Quarrying
- xi. In construction
- xii. In trade and Commerce
- xiii. In Transport, Storage and communication
- xiv. Employees
  - Central Government
  - State Government
  - Local Bodies
  - Public sector
  - Private sector
- xv. Other categories

The categories of the workers to be coded

- 6.2. Employment(number) of
  - i. Women
  - ii. Scheduled Caste
  - iii. Scheduled Tribe
  - iv. Backward caste
  - v. Handicapped
- 6.3. Unemployed (number)
  - i. Uneducated unemployed
  - ii. Educated unemployed
    - a. Below matric
    - b. Above matric

6.4. Under employed

Details to be covered are :

- i. Number :-
  - With respect to
    - a. Nature of employment
    - b. Category belonging to
    - c. Period of the year when employed, if seasonal

Nature of employment is

- . Wage employment
- . Self employment
  - Own
  - Through Govt. schemes

Category of employment ( as listed above)

Period of employment in months

The details of under employment with respect to the nature of employment, category & period to be coded

7. POWER

Basic data

7.1. Village electrified (y/n) ?

7.2. If yes in 7.1.

i. Consumption sectors (connections) & load committed

- a. Domestic
- b. Commercial
- d. Agricultural
- e. Others

ii. Distance from the nearest substation with code no.

7.3. Solar plant (y/n) ? \*

If yes : Type, ownership, number & capacity of each

The various types are :

- a. Solar generator
- b. Solar water pump
- c. Solar heater

The ownership details are :

- a. Community
- b. Private.

The solar plants to be coded with respect to the type and the ownership

7.4. Wind mill (y/n) ? \*

If yes - Ownership, purpose and number of each

The ownership details are :

- a. Community
- b. Private

The purpose of wind mill :

- a. Power (with capacity)
- b. Irrigation
- c. Drinking water (with capacity)

The wind mill to be coded with respect to the ownership and purpose.

7.5. Bio-gas plant (y/n) ? \*

If yes - Ownership, source of waste, purpose, number and installed capacity of the each

The ownership details are :

- a. Community
- b. Private

The sources of waste are :

- . Human waste

(xii)

- . Animal waste
- . Vegetable waste
- . Other waste

The purpose of Bio-gas plant :

- a. Power
- b. Cooking

The bio-gas plant to be coded with respect to the owner -

ship, source of waste and purpose.

## 8. HOUSING

Basic data

- 8.1. No. of families without houses
- 8.2. No. of families with house sites but not houses
- 8.3. No. of families without even house sites

## 9. INDUSTRIES

Basic data

### 9.1. Cottage Industries

The details to be kept for each category are :

- i. Number category wise
- ii. Total investment
- iii. Number employed (males/females separately)

### 9.2. Small scale Industries

The details to be kept for each category are :

- i. Number category wise
- ii. Total investment
- iii. Number employed (males/females separately)

The cottage and small scale industries (no.) details to be coded category-wise

### 9.3. Industrial Co-operative societies

The details to be kept for each category are :

- i. Number category wise
- ii. No. of members
- iii. No. of borrowing members
- iv. No. of defaulters
- v. Amount outstanding
- vi. Amount overdue
- vii. Number employed (males/females separately)

The various categories of Ind. co-op. are :

- a. Primary weavers co-op. society
- b. Primary coil society
- c. Mats and matting society
- d. Husk co-op society

(xiii).

- e. Handicraft society
- g. Handloom society
- h. Others

Other data

iii. No. benefitted under govt. schemes

The industrial co-operative details to be coded type-wise

## 10. ECONOMIC SERVICES

### 10.1 Agricultural Service Centres (number)\*

Basic data

- i. Number of centres for each of the following types : (To be suitably coded)
  - a. Implements centres
  - b. Repair centres
  - c. Servicing centres
  - d. Implement, Repair, Service centres
  - e. Implement, Repair centres
  - f. Implement, service centres
  - g. Repair, Service centres
- ii. Number of depots (to be suitably coded)
  - a. Govt. Seed depots
  - b. Govt. Fertiliser depots
  - c. Govt. Pesticide depots
  - d. Govt. Seed, Fertiliser, Pesticide depots
  - e. Govt. Seed, Fertiliser depots
  - f. Govt. Seed, Pesticide depots
  - g. Govt. Fertiliser, Pesticide depots
  - h. Pvt. Seed depots
  - i. Pvt. Fertiliser depots
  - j. Pvt. Pesticide depots
  - k. Pvt. Seed, Fertiliser, Pesticide depots
  - l. Pvt. Seed, Fertiliser depots
  - m. Pvt. Seed, Pesticide depots
  - n. Pvt. Fertiliser, Pesticide depots
- iii. Godowns
- iv. Mandis

The various agricultural centres and depots to be coded.

### 10.2. Animal Husbandary

Basic data

- i. Centres (number)
  - a. Livestock units
  - b. Pig farms
  - c. Poultryies
  - d. Rabbit farms
  - e. Milk collection centre



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- f. Cattle feed outlets
- g. Broiler farms
- h. A. I Centres
- i. Veterinary Dispensaries
- j. Veterinary Stock centre
- k. Cold Storage
  - m Potatoes
  - Fish and sea food
  - Milk
- l. Go-sevaks

Other data

- ii. Other details
  - a. Engg production and sale
  - b. Milk production and sale
  - c. Meat production

10.3. Fair Price shops \*

Basic data

- i. Number of fair price shops of following types: ( To be coded suitably )
  - a. Selling rice
  - b. Selling wheat
  - c. Selling sugar
  - d. Selling Kerosene
  - e. Selling rice and wheat
  - f. Selling rice and sugar
  - g. Selling rice and Kerosene
  - h. Selling wheat and sugar
  - i. Selling wheat and Kerosene
  - j. Selling rice, wheat and sugar
  - k. Selling rice, wheat and kerosene
  - l. Selling rice, sugar and kerosene
  - m. Selling wheat, sugar and kerosene
  - n. Selling rice, wheat, sugar and kerosene
  - o. Selling rice, wheat, sugar and kerosene
  - p. Selling rice, wheat, sugar and kerosene

10.4. Pisciculture \*

Basic data

- i. No. of tanks
- ii. No. of tanks covered with pisciculture with area
- iii. Fish hatcheries
- iv. Availability of fish feed (y/n) ?
- v. Availability of fish manuer (y/n) ?
- vi. Availability of fish seed (y/n) ?

Other data

- vii. Production of fish
- viii. Sale of fish
- ix. No. benefitted by pisciculture schemes

**10.5. Co-operative Societies**

**Basic data**

- i.** The following details to be kept for each type of co-operative societies :
- a. Number category wise
  - b. Number of members
  - c. Number of borrowing members
  - d. Number of defaulters
  - e. Amount outstanding
  - f. Amount overdue
  - g. Number employed (males/females separately)

The following are the various types :

- . Agricultural credit co-operative
- . Fishermans' Co-operative
- . Large area multi-purpose society
- . Milk Co-operative

- ii.** If the co-operative society does not exist in the village
- . Distance from the nearest co-op.
  - . No. of members of the village
  - . Amount outstanding

The co-operative details to be coded type-wise

**11. MISCELLANEOUS FACILITIES**

**11.1. Recreation and Cultural Centres \***

**Basic data**

- i.** Play grounds
- ii.** Community garden
- iii.** Community centre
- iv.** Community TV
- v.** Reading room/library
- vi.** Child welfare centre
- vii.** Women welfare centre

**II. DEMOGRAPHIC DETAILS**

**I. POPULATION (number)**

- i.** Current census
- ii.** Males
- iii.** Females
- iv.** Males, Females in age group 0 to less than 5
- v.** Males, Females in age group 5 to less than 14
- vi.** SC population

(xvi)

- vii. ST population
- viii. Migrant population
- ix. Literates
- x. Total no. of families -
- xi. Families below poverty line
- xii. SC families below poverty line
- xiii. ST families below poverty line
- xiv. No. of farmer families -
- xv. No. of small farmer families.
- xvi. No. of marginal farmer families
- xvii. No. of births since last census till 1st of march
- xviii. No. of deaths since last census till 1st of march
- xix. No. of infant deaths in age group 0-1 year.

2. LIVE STOCK DETAILS

Basic data

- 1. Population (number)
  - a. Cows
  - b. Buffaloes
  - c. Sheep
  - d. Goats
  - e. Horses and Ponies
  - f. Mules
  - g. Donkeys
  - h. Pigs
  - i. Camels
  - j. Rabbits
  - k. Poultry
    - Fowls
    - Ducks

III. AGRO-ECONOMIC DETAILS

1. LAND CLASSIFICATION

Basic data

- 1. F. General details separate for Govt. & private lands
  - a. Area (Sq.Kms.)
  - b. Forest
    - Social forest
      - . Social
      - . rural fuel
      - . village wood lots
    - Village forest
    - Reserve
    - DPF
    - UDPF
  - c. Non-agricultural uses
  - d. Barren and uncultivable lands
  - e. Permanent pastures and grazing lands

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- f. Land under miscellaneous tree crops.
  - g. Cultivable waste
  - h. Fallow lands
  - i. Current fallow
  - j. Net area sown
  - k. Area sown more than once
  - l. Total cropped area
  - m. Irrigated area
    - Minor
      - . flow
      - . lift
    - Medium
    - Major
  - n. Cropped area
    - Mean yield during
      - . Autumn
      - . Winter
      - . Summer
  - o. Land Holdings (No. & Area) (To be suitable coded)
    - Holdings less than 1 Hectare
    - Holdings 1-2 Hectare
    - Holdings 2-4 Hectare
    - Holdings above 4 Hectare
    - Owned holdings
    - Leased holdings
  - p. Land kept reserved
  - q. Patches of waste land in the following ranges (to be suitably coded)
    - Below 1 hectare
    - Between 1 & 2
    - Between 2 & 4
    - Above 4 hectare
  - r. Road margin
  - s. Rail margin
  - t. Air margin
  - u. Other margins
  - v. Area under fodder
  - w. Area available for fodder
- ii. Irrigation general details
- a. Total area irrigated during Kharif, Rabi, Suffer
  - b. Gross area irrigated (hect.)
  - c. Net irrigated area (hect.)
  - d. Annual rainfall (cms.)
  - e. Normal rainfall (cms.)
- Other data
- iii. Crop wise details for each type of crops
- a. Total area cultivated
  - b. Average yield
  - c. Crop wise recommendations of experts (if any)

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The various types of crops are :

- Paddy
- Wheat
- Ragi
- Maize
- Ground nut
- Oil seeds
- Pulses
- Others

iv. Irrigation schemes details

- a. Major/medium/Minor(flow)/Minor(lift)/  
Energised wells/All wells; with information  
about potential created and used by coding
  - in use
  - with water distribution system
- b. Ownership
  - Government
  - Public sector
  - Private sector
- c. Sources used in schemes (no.)
  - Rivers
  - Streams
  - tanks
  - under ground water
- d. Potential created during khariff, rabi  
and summer
- e. Area covered during
  - Khariff
  - Rabi
  - Summer

NOTE - '\*\*' indicates if the facility doesnot exist, the  
distance from the nearest available facility  
should be given.

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INFORMATION NEEDS

Data requirement at Block level for Planning :

The requirements must be classified into the following details :

- I INFRASTRUCTURE DETAILS (Data on basic amenities)
- II DEMOGRAPHIC DETAILS (Census data on population, livestock)
- III AGRO-ECONOMIC DETAILS (Census data on irrigation, agriculture, forestry, landuse etc).

I INFRASTRUCTURE DETAILS

1. HEALTH

Basic data

1.1 Health Institutions (above PHCs)

- i. Number
- ii. Type
- iii. Ownership
- iv. No. of doctors
- v. No. of Nurses
- vi. Operation facility available (y/n)? etc.

The types are :

- a. Community health centres
- b. Dispensaries including T.B. Centres
- c. Maternity & family welfare
- d. Ayurvedic
- e. Homeopathic
- f. Unani
- h. Allopathic
- i. Others

Ownership details are :

- a. Government
- b. Local Bodies
- c. Others

1.2. No. of mobile vans available

2. EDUCATION

Basic data

2.1. Educational Institutes (number) to be suitably coded

- i. College
  - a. With + 2 Science
  - b. With + 2 Commerce
  - c. With + 2 Arts
  - d. With + 2 Science and Commerce

- e. with + 2 Science and arts
- f. With + 2 Arts and Commerce
- g. With + 2 Science, Commerce and Arts
- h. Science
- i. Commerce
- j. Arts
- k. Science and Commerce
- l. Science and arts
- m. Arts and commerce
- n. Science, Commerce and Arts

### 3. TRANSPORT

#### Basic data

#### 3.1. Railway Station (number)

#### 3.2. Length of roads with type of road surface for each

- i. National highways and no.
- ii. State Highways and no.
- iii. MDR and no.
- iv. ODR and no.
- v. CVR and no.
- vi. Panchayat Samiti Road
- vii. Panchayat Road

The various road surfaces are :

- a. Black top
- b. Mettled road
- c. Murran/Laterite soil road
- d. Earthen soil road

### 4. COMMUNICATION

#### Basic data

#### 4.1. Telephone Exchanges with no. of lines

### 5. EMPLOYMENT

#### Other data

#### 5.1. Vocational guidance and counselling

- i. No. of centres
- ii. Persons assisted.

### 6. HOUSING (Slum Details)

#### Basic data

#### 6.1. No. of towns

#### 6.2. No. of Towns having slums

#### 6.3. Slum details for each of the slum areas

- i. Slum area
- ii. Slum population
- iii. Population rehabilitated so far

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## 7. ECONOMIC SERVICES

### Basic data

#### 7.1. Co-operative Societies

The following to be collected for each type

- i. Number type wise
- ii. Number of members
- iii. Number of borrowing members
- iv. Number of defaulters
- v. Amount Outstanding
- vi. Amount Overdue

Various types are -

- a. Primary Land Mortgage Banks
- b. Irrigation Societies and others
- c. Other type (specify) not collect at village level

#### 7.2. Institutional Finance and Banking

### Basic data

i. The following to be collected for each types

- a. Number
- b. Amount lent for Agricultural purpose
- c. Amount lent for Industrial purpose
- d. Amount lent for other purpose
- e. Credit deposit ratio of latest date

The various Bank types are :

- Nationalised banks other than SBI
- SBI and associates
- Other Indian Scheduled Banks
- Regional rural banks
- Co-operative banks (if any)

ii. Financial Institutions other than Banks (no.)

#### 7.3. Animal Husbandary

### Basic data

- i. Centres with capacity
  - a. No. of slaughter house
  - b. Meat Processing unit
  - c. Feed mixing plant
  - d. Others (specify)

## 8. JUDICIAL AND ADMINISTRATIVE SERVICE

### Basic data

- 8.1. No. of Police Stations located in the block
- 8.2. No. of Outposts located in the block
- 8.3. Population covered.



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8.4. No. of magistrate courts

8.5. No. of munisij courts

9. MISCELLANEOUS FACILITIES

Basic data

1. Details of dal bhavan/creches

a. Capacity

b. Strength

II DEMOGRAPHIC DETAILS

The Demographic details are to be collected at village level and consolidated at the corresponding block level

III. AGRO-ECONOMIC DETAILS

The Agro-Economic details are to be collected at the village level and consolidated at the corresponding block level.

INFORMATION NEEDS

Data requirement at District level for Planning :

The requirements must be classified into the following details

- I INFRASTRUCTURE DETAILS (Data on basic amenities)
- II DEMOGRAPHIC DETAILS (Census data on population, livestock)
- III. AGRO-ECONOMIC DETAILS (Census data on irrigation, agriculture, forestry, landuse etc)

I INFRASTRUCTURE DETAILS

1. HEALTH

Basic data

1.1. Hospital (number) with specialisation code for each type the details are

- i. Ownership details
    - a. Government
    - b. Local Bodies
    - c. Others
  - ii. Personnel (number)
    - a. Doctors
      - Graduates
      - Post graduates with specialisation in
        - . Heart Surgery
        - . Neure Suregery
        - . Orthopadic Surgery
        - . Gynaecology etc.
- to be coded
- b. Nurses/midwives
  - c. Laboratory technicians
  - c. X-ray, radiologists etc
- iii. No. of surgery wards
  - iv. No. of beds
  - v. No. of medical wards
  - vi. Availability of bloodbank (y/n) ?

The hospital type and ownership details for each to be coded

2. EDUCATION

Basic data

- 2.1. Educational Institution (number and seat capacity)
  - i. Engineering and ...
  - ii. Medical
  - iii. Polytechnics and Diploma Institutions
  - iv. Arts and Crafts

- v. Teachers Training
- vi. Music
- vii. Dancing
- viii. Other fine arts
- ix. P.G. colleges

2.1. Ownership of each of the above in 2.1

- i. Government
- ii. Private
  - a. Aided
  - b. Unaided

The educational institutions (no.) , capacity and ownership details for each type to be coded

3. DRINKING WATER

Basic data

- 3.1. Urban Water Supply
- i. Population benefited
  - ii. Population to be covered

Other data

- 3.2. No. of DWS projects
- i. Completed
  - ii. Ongoing

4. TRANSPORT

Basic data

4.1 Railway lines

- i. Length of
  - a. Broad gauge lines with code
  - b. Meter gauge lines with code
  - c. Narrow gauge lines with code
  - d. Electrified lines
    - Broad gauge
    - Meter gauge

4.2. Ports and Harbours

- i. Major ports with code
- ii. Minor ports with code
- iii. Fishing harbours with trawler berthing capacity
- iv. Fishing Jettis with trawler berthing capacity

5. COMMUNICATION

Basic data

- 5.1. Number of Telex exchanges

C. EMPLOYMENT

Basic data

- 6.1. No. of employment exchanges

6.2. No. of job seekers registered as on 31 Dec. previous year (category wise)

Categories are undermatrics, matrics, intermediates, Arts Graduates, Science graduates, Commerce graduates, medical graduates, Engineering graduates with description. Diploma holders with description, certificate holders with description.

Other data

6.3. Overseas development and employment promotion consultants

- i. Country
- ii. Persons deployed

6.4. SCEUY

- i. Applications received
- ii. Approved by district committee
- iii. Sanctioned
- iv. Rejected
- v. Pending
- vi. Amount disbursed

6.5. Training

- i. Craftsmen training programme (ITI)
  - a. No. of centres
  - b. Trades
  - c. Capacity
  - d. No. Trained
  - e. No. employed

6.6. Apprentice training programme

- i. Establishments engaging apprentice programme
- ii. Trades
- iii. Related institution centres
- iv. No. trained
- v. No. employed

6.7 No. of Migrant labour category wise

7. INDUSTRIES

Basic data

7.1 Large scale Industries

The following to be collected for each category

- i. Total Investment
- ii. No. employed
- iii. Functional
- iv. Sick

7.2. Medium Scale Industries

The following to be collected for each category

- i. Total Investment
- ii. No. employed
- iii. Functional
- iv. Sick

Large and Medium scale industries (no. and details to be coded category-wise)

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8. ECONOMIC SERVICES

Basic data

8.1. Apex Co-operative Societies

The following to be collected for each type

- i. Number type wise
- ii. Number of members
- iii. Number of borrowing members
- iv. Number of defaulters
- v. Amount outstanding
- vi. Amount overdue
- vii. No. of employed (males/females separately)

The various types are -

- a. District Co-operative
  - b. Apex marketing Societies
- Additional data to be collected are
- . No. of member societies for each of the following type
    - Milk society
    - Handloom society
    - Fisheries
    - Handicraft
    - Others (specify)
  - c. District land development society
  - d. Milk supply unions
  - e. Central co-op. if not recovered at block level.

The co-operative society (no.) and details to be coded type-wise

8.2. Animal Husbandary

Other data

- i. District milk co-operative union details
  - a. Collection from milk centres
  - b. Sale
  - c. Number employed (males/females separately)
- ii. District fish co-operative society details
  - a. Collection
  - b. Sale
  - c. Number employed (males/females separately)
- iii. District handloom co-operative society details
  - a. Procurement
  - b. Sale
  - c. Number employed (males/females separately)

9. MISCELLANEOUS FACILITIES

Basic data

9.1. Recreation and Cultural Centres

- i. Stadiums
- ii. Museums
- iii. Zoo
- iv. Art galleries

II. DEMOGRAPHIC DETAILS

The demographic details are to be collected at the village level and consolidated at the district level

III. AGRO-ECONOMIC DETAILS

The agro-economic details are to be collected at the village and block levels with respect to basic and other data and consolidates at the district level.

A NOTE ON DISNIC

1. COMPUTERISATION THROUGH DISNIC

In order to explore and exploit the vast opportunities offered by Information Technology, which will improve and accelerate the planning process and implementation of socio-economic programmes for all round developmental growth of the nation, National Informatics Centre (NIC), the NODAL Organisation of Government of India to introduce Computer-based MIS, fileless-office concept, electronic mail services and Telematics services in the central, state and district government departments, has set up a Satellite based Computer-Communication Network (NICNET) covering all Districts, State Capitals and the Centre. This is facilitating the development of District Information System at District level (DISNIC) and essential databases for state and central government departments. NICNET comprises of:

- (i) Super Computers (MBC-S1000) at NIC Regional Centres (Delhi, Pune, Bhubaneswar and Hyderabad).
- (ii) MD-550 or equivalent super mini computers at State capitals for providing informatics service to the states.
- (iii) Super PC/AT computer system at districts to provide services to the district administration.
- (iv) Mother Earth Station at NIC Hqrs., Delhi and a Micro Earth Station at each of the NIC State Units and District Informatics Centres, for the exchange of information via satellite (INTELSAT).

OBJECTIVES OF DISNIC:

- (i) To develop the necessary information systems/data bases in various sectors of economy for planning and decision making at the district administration.
- (ii) To promote informatics culture at the district administration.
- (iii) To improve the analysis capacity and the presentation of the statistics utilised for national, regional and district planning.

- (iv) To develop modelling and forecasting techniques that are for decision making for economic development .

During the last 2 years, NIC has undertaken various studies with respect to the development of DISNIC at the District level by involving concerned departments at district, state and the central level. From the study, the input parameters required both at micro and macro levels, in all the sectors for decision support system have been identified; accordingly project document has been prepared for each sector taking into consideration, the information collection processing and dissemination procedure of the administration; and distributed to all the state centres for further discussion with the state/district departments for information richness and correctness. DISNIC has been evolved for the following sectors to start with:

- |                                     |                         |
|-------------------------------------|-------------------------|
| 1. Agriculture                      | 2. Animal Husbandry     |
| 3. Building & Works                 | 4. Civil Supplies       |
| 5. District Collecto-<br>r's Office | 6. Collegiate Education |
| 7. District Planning                | 8. Employment           |
| 9. Fisheries                        | 10. Ground Water        |
| 11. Health                          | 12. Industry            |
| 13. Irrigation                      | 14. Labour              |
| 15. Panchayat                       | 16. Power               |
| 17. Public Instruction              | 18. Roads & Bridges     |
| 19. Rural Development               | 20. SC/ST Development   |
| 21. Social Forestry                 | 22. Social Welfare      |
| 23. Town Planning                   | 24. Transport           |
| 25. Water Authority                 | 26. District Treasury   |

DISNIC is expected to facilitate through NICNET the fulfilment of long felt information gap for the planning agencies and provide decision support information for economic and social development, programme implementation and project monitoring.

## 2. AERIAL PHOTOGRAPHS AND SATELLITE IMAGERIES (REMOTE SENSING APPLICATION)

Remotely sensed data obtained from satellites and aircraft surveys are used to study and monitor natural resources, natural phenomena and the dynamic effects of human activities with them. Rapid, synoptic and accurate studies on crops, soil resources including growth, water potential, forests, environment and pollution, waste lands, and land use, desertification and urbanisation, geology, mineral resources, etc. are now feasible with satellite remote sensing and digital & image analysis and training already existing in ISRO and NRSA. Similar facilities are rapidly coming up at the Regional Remote Sensing Centres of the National Natural Resource Management System (NRRMS)



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set up by the Government of India. NIC has plans to set up NICET facilities in all the Regional Remote Sensing Centres of NNRNS to use NNRNS for further analysis at the district level by the NIC district centres.

### 3. GEOGRAPHIC INFORMATION SYSTEM (GIS)

The currently ongoing GIS project of DISNIC aims at a map based decision support system, or computer based cartographic system. The implementation of such a system will lead to an omnipotent Geographic Information System, with the capabilities for handling remotely sensed data and user friendly expert shells. The intended user for this system is district administration. So the hardware and software available at district computer centre is a logical constraint, in the design and implementation phase. Hence system has been designed to work, even in the absence of digitizer, plotter and/or any other special graphic hardware. The minimum configuration required is XENIX- 386 OS and 80386 machine, and Computer Graphic Interface (CGI). For the storage and retrieval of attribute data, various databases developed under DISNIC will be utilized. The main purpose of mapping software is to superimpose demographic, statistical and thematic data on top of map's physical or political boundaries in order to reveal geographic trends and relationships. This will also facilitate the generation of Computer based district atlas

#### Salient Features of the package GIS Ver 1.0

##### USER INTERFACE

- \* pull down menus
- \* help options
- \* Interactive operations

##### MAP DESIGN AND LAYOUT

- \* title, scale, box and direction drawn by default
- \* you can superimpose any text that you want on the map
- \* zooming effect if base map for that region is also present.

## **RETRIEVAL AND DISPLAY OF CARTOGRAPHIC DATA**

- \* **GISNIC** tells you what maps are available.
- \* retrieve cartographic data by using **GISNIC**'s interactive feature selection.
- \* choose from a variety of line and marker types.
- \* choose from a variety of patterns and hatch styles.
- \* unselect/erase a feature from the screen.

## **HARDCOPY**

- \* Choose the features desired to be drawn.
- \* Choose the orientation (Portrait or Landscape)
- \* Print maps in high resolution on a dot matrix printer.

## **DESIGN YOUR OWN BASE MAP**

Create your permanent working base map with all the non-geographic details. Once created by superuser, it is available for any general user of the system.

## **STORE WORK IN A LOG FILE**

The work done by the user in the current session can be stored by him/her for restoring later for using.

## **NON-GEOGRAPHIC DATA STORAGE AND RETRIEVAL**

One can input non-geographic data about the cartographic features of the base map. This package can import data from **DBase-III** files for this purpose. Thus making the data entry off-line from this package. Different data formats such as character, numeric, date and logical are available. One can give his own codes. Hence the flexibility in the coding system is achieved.

## **EDIT TEXT ON MAP**

Interactively one can type his own text on the map in a session. It can be saved also alongwith the graphic details in the log file.

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Following modules are planned for future development:

1. Interactive, feature based map editor
2. Choropleth mapping Software
3. Merging adjacent map sheets.
4. User defined symbols library
5. Network/Graph operations
6. Programmable interface for thematic mapping
7. Address Geocoding

#### 4. MANAGEMENT OF DISTRICT DATA CENTRES & DATABASES

All the State Governments have signed Memorandum of Understanding (MOU) with the National Informatics Centre (NIC) of the Planning Commission for the installation and utilisation of NINET Computer Communication facilities. Under the MOU, NIC has set up the District Informatics Centre at all the District Headquarters with fully trained officers and staff consisting of one District Informatics Officer and one District Informatics Assistant to manage the District centre. The following Hardware/Software is available at the District Informatics Centre.

- a) Super PC/AT with 6 to 8 MB Memory, 1 Floppy drive, 1 Winchester disk of 300 MB, Cartridge tape backup of 60 MB capacity.
- b) A 132-column printer with a speed of 300 cps.
- c) Four terminals to Super PC/AT (to begin with).
- d) Application Software Tools includes FoxBASE+, Lyrinx, Professional and language compilers.
- e) DISNIC Software.

To supervise the progress of the District Informatics Centre especially with regard to data availability and infrastructure needs of District Informatics Centre, the NIC-District Coordination Committee (NDCC), under the Chairmanship of the Collector/Magistrate/Deputy Commissioner has been set up in all the states. The Member-Secretary is District Informatics Officer from NIC. The other members of the Committee are : one Joint Director/Deputy Director each from Agriculture, Revenue, Industry, Health and Forest Departments and one Supdt. Engineer/Executive Engineer each from PWD and Irrigation Departments. Apart from this, the NIC-State Coordination Committee (NSCC) has also been formed in all the States/UTs.

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The primary responsibility of district centres is to validate, store and disseminate the data of national/state importance needed for planning and decision making. The staff of state agencies engaged in data collection job at present would also handle the reconciliation of validation reports generated on computer. This would bring about a qualitative change in the accuracy and coverage of data at all levels. Extra man power will not be required as the reconciliation job would be handled by the staff engaged in the compilation/consolidation of data. These activities can be speedily and neatly done on the computer, thus making available the staff for improving the quality of the data.

All the districts in a given state are supported by a core group of scientific/technical professionals of NIC in the state capital.

### TRAINING

NIC has fully trained officers and staff in the District Informatics Centre and has undertaken suitable strengthening and reorientation of activities of the existing machinery by various training programmes in the district and state capitals. For the senior district officers NIC will arrange computer appreciation courses in its regional/state centres.

The active participation of the district administration and other agencies which are capturing the data is absolutely essential. The field staff of these organisations are being trained in modern techniques of data capture, data entry, data reconciliation, querying databases and in the use of information analysis techniques.

A NOTE ON COMPUTERISATION OF RURAL INFORMATION  
SYSTEM PROJECT (CRISP)

1. Under the programme on 'Computerisation of Rural Information System Project' (CRISP) each of the DRDAs has been provided with mini Computers for developing data bases for different rural development programmes to facilitate monitoring of the physical and financial progresses of the schemes and also the flow of benefits to the target groups. Besides, village level information collected through report formats specially prescribed, are processed and built up for planning purposes. Thus the basic functions of the CRISP programme are to-

- (i) provide an easy method of generating various reports prescribed by the State and the Centre.
- (ii) Create a basic record of beneficiaries and works under rural development programmes.
- (iii) Collect information about villages for planning purposes.
- (iv) Cover the programmes under
  - (a) Integrated Rural Development
  - (b) National Rural Employment
  - (c) Rural Land less employment guarantee
  - (d) Rural Drinking water supply.

The hardware was set up by 31st December, 1987 and the system was on the line at the end of March, 1988.

2. The direct benefits of the programme as envisaged in the letter of the Secretary, Ministry of Agriculture, Department of Rural Development, Govt. of India to the Experts dated 6th November, 1987, are as follows:-

(i) State and Central Governments will be able to get monitoring information which to-day, except for the monthly report is difficult to come by. The monthly report captures only the State level achievements (physical and financial) of the major targets. Through this programme it will be possible to get a larger range of information and the quality of schemes and implementation can be tested through a larger number of outputs.

(ii) It should be possible to disseminate villagewise or programmewise information widely to the concerned persons about the programme implemented. This will allow an interface between the achievements in the record and achievements in reality. It is hoped that this will have a salutary influence on the quality of implementation.

(iii) It was possible in the CRISP experiment to provide considerable guidance for villagewise planning and implementation. It is possible through the computer to work out rational allocations and sites as it is not possible in manual system. It is also possible to predict that if the allocation is continued at the current level, in the future year what programmes would be implemented and where. In fact, a villagewise graphic presentation of the implemented programmes and a perspective for the future years is quite possible.

(iv) At present, very little monitoring and concurrent evaluation is being done at the State level. The monitoring at the State level is concerned with wider questions than allocations of benefits which are the concern of district level monitoring. At the State Government level, it should be possible to relate these programmes with the developments that are undertaken by the public and private sector in

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the allied areas. This will go a long way towards improving the quality of the programmes. Again, it should be possible at the State level to take into account the resource-matrix of the district and suggest modifications of the programmes to optimally utilise development funds. Analysis and outputs have to be devised which should be regularly considered by a monitoring and Evaluation Committee at the State level.

(v) It should be possible to disseminate full information about the implementation of programmes and Government records to research institutions and Universities to undertake exhaustive analysis of the impact of these programmes.

(vi) It is now possible for the Central Government to enlarge the scope of monitoring these programmes. New areas and questions are to be thought of, for inclusion to be answered in the reports from the States. The scope of CRISP software can also be expanded to include these additional inputs to rural planning. A list of outputs which would most economically provide the data to monitor these programmes has been decided upon as the determination of the outputs and analyses which are required is the crucial part of the programme.

3. For each of the programmes covered by the CRISP, a separate set of information is obtained.

I.R.D.P. : Key indicators provided in the monitoring Format for monthly performance report under IRDP are as follows:-

- (a) Financial allocations and funds available.
- (b) Expenditure on infrastructural development and on administration.
- (c) physical progress on families assisted.
- (d) Disbursement of subsidy.
- (e) Credit disbursement.
- (f) Applications pending over month, for disbursement and applications rejected.
- (g) Sectorwise break up of beneficiaries.
- (h) Group Insurance.

The informations are collected in two formats, one for the summary data input and the second for detailed input. The summary data give a blockwise picture of performance under I.R.D.P. These formats are aggregated to show the district performance. Through the second format, many of details in the Monthly Progress Report are generated.

\*N.R.E.P.

Two formats N(1) and N(2) are being used for Summary data input and for detailed input. In format N(1) physical and financial details of the spill over and fresh works are collected. Similarly in format N(2) details on the monthwise progress of work under different types of projects are obtained.

In the main formats under N.R.E.P. information relating to progress of sanctioned spill over and fresh works on physical and financial aspects,



agencywise, Blockwise and Districtwise are collected and fed to the Computer.

\* R.L.N.G.P.

As in case of NREP, two formats R(1) and R(2) are being used to collect monthly agencywise reports on progress of sanctioned spill over and fresh works in both physical and financial aspects. Similarly input format R(2) provides for collection of detailed monthwise information on the progress of work according to types of projects.

Drinking  
Water Supply

Monthly summary report on implementation and maintenance of different schemes under drinking water supply and details on monthly monitoring of implementation of schemes are collected in formats D(1) and D(2) respectively.

Village  
Data Base:

For the village level data, Formats (1) and (2) are not prescribed, as has been done in case of other programmes.

A separate set of formats for building up village level data base has been however prescribed covering various aspects. It is quite possible that all the formats data may not be available specially at the DRDA level. Such data may have to be got systematically from concerned departmental authorities.

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\* Since merged into Jawahar Rozagar Yojana (JRY)

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Formats for data entry into the Computer are classified as follows:-

- (i) Entry card for village information
- (ii) Population Details
- (iii) Input sheet for Livestock
- (iv) Details for land use pattern
- (v) Input sheet for crop use pattern
- (vi) Input sheet for educational details
- (vii) Input sheet for programme details
- (viii) Input sheet for Drinking Water Supply
- (ix) Human and Natural resources
- (x) Input sheet for organising details
- (xi) Input sheet for infrastructural details.

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NOTE FOR 'STUDY GROUP ON INFORMATION GAP  
FOR DISTRICT LEVEL PLANNING' - PLANNING COMMISSION  
NATURAL RESOURCES DATA MANAGEMENT SYSTEM. DST, NEW DELHI  
(BY DR. R.K. MIDHA)

A. Background

Natural Resources Data Management System (NRDMS) is a multidisciplinary, multi agency project aimed towards developing computer based methodologies for generating area - specific profiles of natural resources & socio-economic parameters and decision support models for micro level planning. Under the project, both operational (pilot scale) and R&D activities are being pursued.

The data in NRDMS databases are arranged in a modular file structure under the following broad heads:

1. Natural Resources
2. Demography
3. Agro-economic
4. Socio-economic
5. Infrastructure
6. Sectoral
7. Household

This file structure is in consonance with the recommendations of the Working Group on District Level Planning set up by the Planning Commission under the Chairmanship of Prof. Hanumanth Rao. Pilot scale databases are now being set up in the following places :

1. Vishakhapatnam (A.P)
2. Gurgaon (Haryana)
3. Sultanpur (U.P)

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4. Kheda (Gujarat)
5. Koraput (Orissa)
6. Alwar (Rajasthan)
7. Pauri (U.P. Garhwal Himalaya)
8. Munger (Bihar)
9. Chandel (Manipur)

Efforts are afoot to extend the activities to some drought prone areas and Andaman & Nicobar Islands.

It is apparent from the above list that NRDMS database centres have been located in different geo-environments so as to understand and incorporate in the methodology the varied requirements for planning in different settings. At some of the centres the stage has now reached where the established databases can be utilised for solving real-life problems of development. Thrust is being given to tackle applications which are specific to these areas. Problems like water balance and ground water resources (Kheda district), water logging and flood plain zoning (Sultanpur district), land slides and soil erosion (Pauri) are being tackled through the integrated databases. In addition, studies relating to OR modelling are being carried out to develop decision support modules. NRDMS centres are providing database support for drawing up the VIII Plan proposals for these districts.

#### B. NRDMS - A GIS Concept

NRDMS is based on the concept of Geographic Information System. The databases store information on attributes, location

(geo-coordinates) and time—the primary constituents for generating dynamic resource profiles of an area. The availability of these three components in the databases allow us to address queries like 'what is where, and where is what'. Fidelity of the relationships is preserved during the analysis. This mode of developing the databases allows generation of thematic maps, overlaying of different parameters and study of spatial relationships and affinities. Also, it is possible to superimpose the natural physical boundaries e.g. watersheds forest areas etc. over the administrative units. The data can thus be retrieved either on the basis of an administrative unit like village, Panchyat, block, district or on the basis of a physical boundary like a microcatchment. This is important because the physical resources of an area generally cut across the administrative units.

C. Suggestions :

Based on the experience of NRDMS project, the following points are considered important for drawing up the recommendations of this Group :

- I. It must be recognised that the requirements of data and methodological details of an Information System designed for developmental planning are different from those of an Information System primarily required for monitoring of plan activities. The two have to develop in complimentarity.
- II. The basic rationale behind decentralised planning is obviously to capture the specificity of the

areas for which planning has to be done. The databases need to bring out the spatial relations in the resource endowments and the disparities in development to help chart out specific strategies for correcting the imbalances, to the extent possible. Databases have thus to be spatial in character. This requirement does not hold good for an Information System which is primarily required to cater to the needs of governmental monitoring.

III. Data formats should have the in-built capability to capture the specifics of the area. In this context, a uniform comprehensive standardised format for the entire country may not allow the required flexibility. We may standardise the format with a set of 'hard' core parameters leaving scope to incorporate the 'soft' core parameters to meet the specific requirements of an area. The file structure suggested by Hanumanth Rao Committee can be a good starting point.

IV. Suitable mechanisms for up-dating the data may be recommended. The updation cycles should take into account the possible contingencies of natural disasters like drought etc. which affect large parts of the country from time to time. The database system should be able to respond to such contingencies and meet the special requirements.

V. Validation of data constitutes an important

component of building up reliable databases. Under NRDS, we have often come across the need for proper procedures for validation of data. Certain amount of validation has been done by our teams. However, the local officials have sometimes felt uneasy about this. Considering the basic importance of the quality of data, the need for validation cannot be over emphasised. The field level data collection procedures also need to be suitably upgraded with the induction of new technologies.

VI. Standardization of definitions and units : In this context the present definition of village tied to the revenue boundaries needs to be reviewed in view of the development of hamlets which are almost as big as the main village.

VII. Multiplicity of agencies collecting similar sets of data. For example, data on land use is collected by at least three different agencies i.e. the revenue department, agriculture department and the Directorate of Economics and Statistics. These departments follow different procedures, different time cycles and often come up with mutually incompatible figures. It is essential to identify a nodal agency to provide authentic data on such important parameters. This will help in reducing the redundancy in data collection and also minimise the inconsistencies in different data sets.

VIII. Application of computers for micro level planning is still in a very nascent stage in our country. It is essential to experiment with different approaches before freezing on a particular model(s). The most suitable and acceptable model has still to emerge. Excessive standardisation at this early stage is likely to blunt the initiative of different groups and may well prove to be counter productive. The different programmes like NNRMS, CRISP, NRDMS and NICNET are following somewhat different approaches. While there is certainly need for proper coordination, it must however be ensured that the perspective and ingenuity of these programmes is nurtured to the fullest possible to enable them to enrich and contribute to the complex and multifaceted task of management and planning of resources.



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An indicative list of parameters included  
in the Natural Resources file of NRDMS

1. Geomorphology

Elevation	}Very important for
Slope	}hilly, coastal and
Erosional characteristics	}desert areas and
Drainage pattern	}island systems
Land forms	}

2. Geological Resources

Rock Types  
Physical properties of rock  
Rock composition  
Geophysical characteristics  
Structural properties  
Mineral Resources

3. Soil Resources

Thickness  
Physical, Chemical and engineering properties  
Drainage characteristics  
Taxonomy  
Land capability

4. Water Resources (surface and sub-surface)

Source characteristics  
Physical, Chemical & Biological properties  
Recharge and discharge parameters

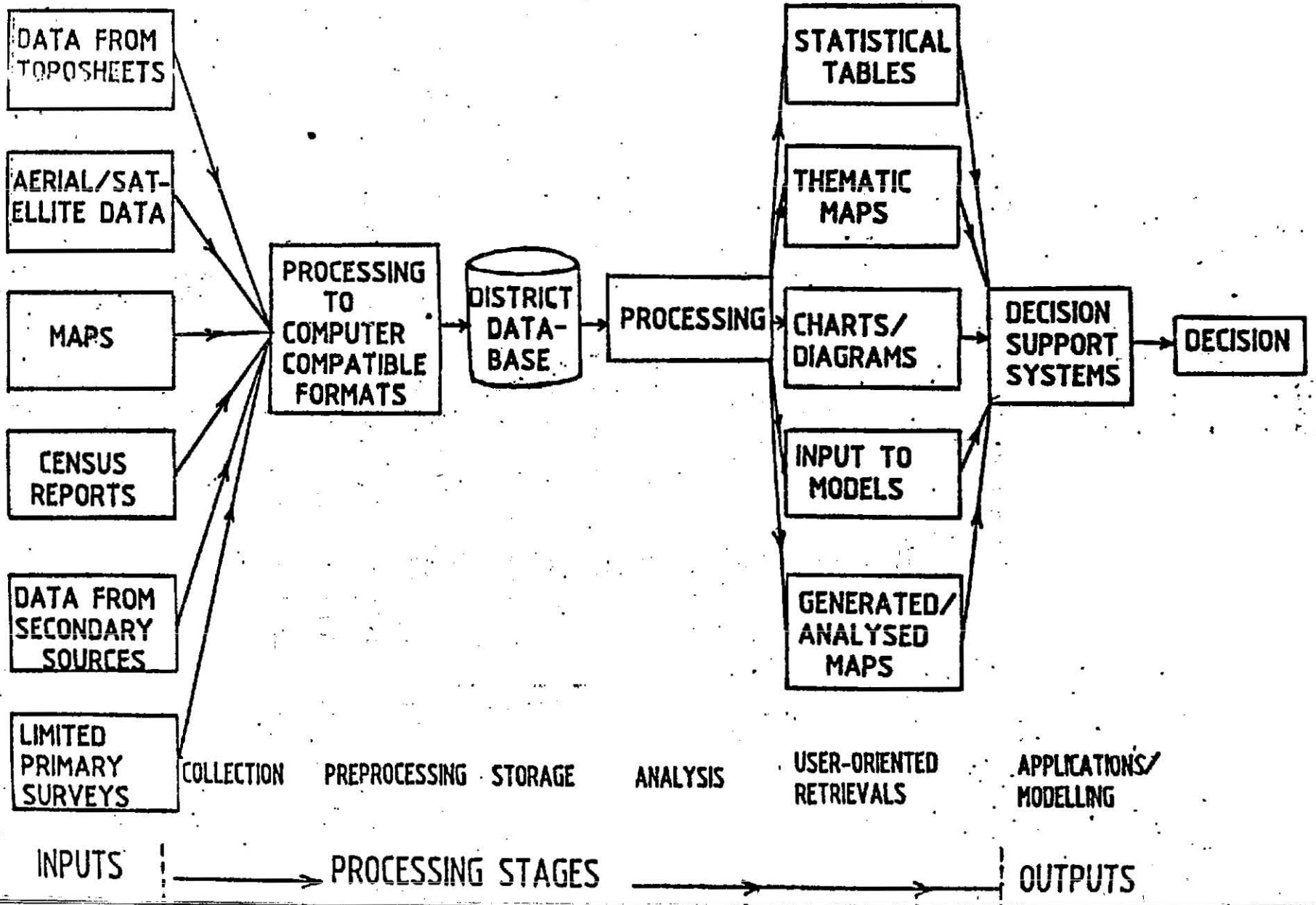
5. Meteorological parameters

6. Forest & Wild Life resources

7. Land use and Land cover

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# NRDMS: A SYSTEM FOR MICROLEVEL PLANNING



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CHAPTER-V: SUMMARY OF RECOMMENDATIONS

Some of the heads, under which the recommendations have been made, have undergone slight change. As such, paragraphs have been readjusted and numbers changed accordingly. The following changes in paragraph numbers and heads may be noted.

<u>FOR</u>			<u>CHANGE TO BE INCORPORATED</u>	
<u>Head</u>	<u>Paragraph no.</u>	<u>Page no.</u>	<u>Head</u>	<u>Paragraph no.</u>
<u>Data Collection &amp; Processing</u>	5.2.5	80-81	2. <u>Data Collection &amp; Processing</u>	5.2.4
-do-	5.2.4	80	3. <u>Data Management</u>	5.3.1
<u>Information System</u>	5.3.3	82	-do-	5.3.2.
<u>Meeting the data gap</u>	5.6.1	93	-do-	5.3.3
-do-	5.6.2.	93	-do-	5.3.4
-do-	5.6.3	93	-do-	5.3.5
<u>Information System</u>	5.3.1	81	4. <u>Availability of Data</u>	5.4.1
-do-	5.3.2	82	-do-	5.4.2
-do-	5.3.4	83	-do-	5.4.3
-do-	5.3.5	83	-do-	5.4.4
-do-	5.3.6	83-84	-do-	5.4.5
-do-	5.3.7	84	-do-	5.4.6
-do-	5.3.8	85	-do-	5.4.7
-do-	5.3.11	85	-do-	5.4.8
-do-	5.3.13	86	-do-	5.4.9
-do-	5.3.14	86	-do-	5.4.10
<u>Information System</u>	5.3.9	85	5. <u>Data Requirement</u>	5.5.1
-do-	5.3.12	86	-do-	5.5.2
<u>Data Requirement</u>	5.4.1	86	5. <u>Data requirement</u>	5.5.3
<u>Data Gap.</u>	5.5.1	91	-do-	5.5.4
-do-	5.5.2	91	-do-	5.5.5
-do-	5.5.3	92	-do-	5.5.6
-do-	5.5.4	92	-do-	5.5.7
<u>Information System</u>	5.3.10	85	6. <u>Data Gap</u>	5.6.1
<u>Data Gap</u>	5.5.5	92	-do-	5.6.2
-do-	5.5.6	92	-do-	5.6.3
<u>Data Requirement</u>	5.4.2	87	7. <u>Meeting of the Data Gap</u>	5.7.1
-do-			-do-	5.7.2
-do-	5.4.3	87	-do-	(para added)
-do-	5.4.4	88	-do-	5.7.3
-do-	5.4.5	88-89	-do-	5.7.4
-do-	5.4.6.	89	-do-	5.7.5
-do-	5.4.7	89	-do-	5.7.6
-do-	5.4.8	89-90	-do-	5.7.7
-do-	5.4.9.	90-91	-do-	5.7.8
			-do-	5.7.9.

<u>FOR</u>		<u>CHANGE TO BE INCORPORATED</u>		
<u>Head</u>	<u>Paragraph No.</u>	<u>Page No.</u>	<u>Head</u>	<u>Paragra. No.</u>
5. Data Gap	5.5.7	93	Meeting the Data Gap	5.7.
6. <u>Meeting the Data Gap</u>	5.6.4	95	8. <u>General</u>	5.8.
-do-	5.6.5	95-96	-do-	5.8.
-do-	5.6.6	96	-do-	5.8.
-do-	5.6.7	96	-do-	5.8.

Annexure-VI

Page xxv 6.4 SCEUY

SCAUY (Scheme for Self-Employment of Educated Unemployed Youth)

\*5.7.2. Keeping in view the data requirement at the village, Block and District levels for micro\_level Planning, three sets of data with categorywise details have been formulated after a series of deliberations between the members of the Committee and the representatives of NIC, CSO, NRDMs and NIRD. These are enclosed as Annexes IV, V and VI to this report. The forms for collection of data will now have to be designed to enable entry of the mass of data so collected at each level, into the Computer at the District level for processing, storage and retrieval with ease. The items of information in each form will have to be suitably coded for computerisation. This should be done by the NIC. While giving code number, the NIC should ensure linkages wherever necessary with the corresponding code numbers for the same items under other systems. Of course the ideal thing would be to have the same code number for particular item in all systems irrespective of the purpose for which the information is collected/used in a system. (para 3.3.2)