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**INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD**

ACTION RESEARCH ON RURAL DEVELOPMENT
EXPERIENCES OF RDP GROUP

By
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The main objective of the working paper series of the IIMA
is to help faculty members to test out their research
findings at the pre-publication stage

INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD

PREFACE

In 1975 the Centre for Management in Agriculture at the Indian Institute of Management, Ahmedabad, undertook a five-year programme of research on rural development with focus on action research. To conduct the study the Centre constituted a core group consisting of Professors BM Desai, TK Moulik, VS Vyas, and myself.

We have been involved in this study since inception and have shared the various responsibilities as a team along with our research colleagues Shri MS Patel and Shri BL Tripathi. Three other research colleagues — Shri SC Bandyopadhyay, Shri VS Kumat, and Shri IT Patel — who helped us in conducting the first action research project left the Institute about a year ago to assume new responsibilities elsewhere. The vacancy created by them has been ably filled up by Shri Sharad Mahajan and Shri Y Narayana Rao. For a short while we were assisted by one of our ex-students, Shri Raghubir. He helped us in conducting field investigations for the second action research project. Research work on this project is still in progress.

While preparing the action plan part of the first project we faced a tricky problem of identifying suitable sites for locating service centres in the area under planning. At our

request Professor Nitin R Patel, our colleague at the Institute, developed by employing an operations research model an interactive programme with video-display. It not only solved the problem but also helped us in explaining through the video-display a complicated OR technique to administrators and public leaders not conversant with quantitative or OR techniques. Without this display it would have been difficult for us to convince them that such a solution is rational and possible, and for them to accept it as the best possible alternative.

This paper presents some of the experiences, insights and lessons we gained from the first action research project located in Dharampur, a predominantly tribal populated taluka in Valsad district of Gujarat. Action on this project started only about a year ago. Before that our efforts were directed at research and preparing an action plan which would ensure a threshold income to the tribal poor and a qualitative improvement in their educational, health and nutrition, and housing status. Our efforts were also directed at establishing links with other institutions not only to facilitate our research but also to sensitise them about the role they had to play once the action plan was ready. Efforts to promote

the participation of relevant agencies and institutions in the implementation of the action plan are continuing. Apart from the two volumes on Dharampur Project which we brought out in 1975 and 1976, what we have achieved so far is very little. The experiences presented in this paper are, therefore, incomplete and inconclusive. We are still trying to find our way through what, in the beginning, appeared as a stream and is now expanded like the hilly streams of Dharampur into a flooded river.

The paper is presented in two parts. The first part describes the methodology we adopted to prepare the action plan. The institutional linkages we established to facilitate the planning and implementation of the action plan and some of the insights we gained as action researchers are also described. No attempt has been made to analyse or narrate the scope and contents of the action plan. But a few diagrams are given to provide a bird's eye view of some of the salient features of this plan. Towards the end of this part a brief statement is given to indicate the intervention strategy we adopted as action researchers. Any assessment of the effectiveness or implications of this strategy at this stage would be premature. Nevertheless, a few questions have been raised to underscore certain concerns crucial to the task of improving the lot of the rural poor.

The second part contains further details of the methodology we followed to study the area's resources, growth constraints, development potentialities, social structure, functioning and structure of development administration and other agencies in the area, including the results of earlier development efforts etc. Most of this information, qualitative as well as quantitative, was collected from secondary sources. A list of these sources is given at the end of the paper. In addition to secondary data, we collected a wide range of primary data through village and household surveys, case studies, interviews and discussion notes. The questionnaires or the designs of these enquiries are not included in this paper.

The first part is almost wholly lifted from a paper I presented at the Second Seminar on Management Research held at IIMA on January 19 and 20, 1978. The second part representing the collective contributions of RDP group was compiled in pursuance of a task assigned to me by Professor ML Dantwala, Chairman, Working Group on Block Level Planning, of which I happen to be a member. The Working Group constituted by the Planning Commission felt that it would be desirable to document this material for the benefit of those involved in block level or area planning. Instead of bringing it out as a separate document, I have included it as a part of this paper because

the methodology underlying it is explained in the other part.

I am thankful to Shri MV Raghavan, my secretary at IIMA, without whose help this paper would have remained a handwritten document. I wish to record my thanks to Professor Srinivasa Rao for editing and improving the presentation of the paper.

Above all I am grateful to my colleagues in the RDP group for allowing me not only to make use of their research contributions but also to narrate and interpret the experiences of the group from a single point of view: my own. I need hardly stress, therefore, that all errors of omission, commission, narration, and interpretation are mine. To repeat, opinions directly stated or implied in this paper are mine and do not reflect those of the RDP Group or the Indian Institute of Management, Ahmedabad.

Ahmedabad

March 27, 1978

Ranjit Gupta

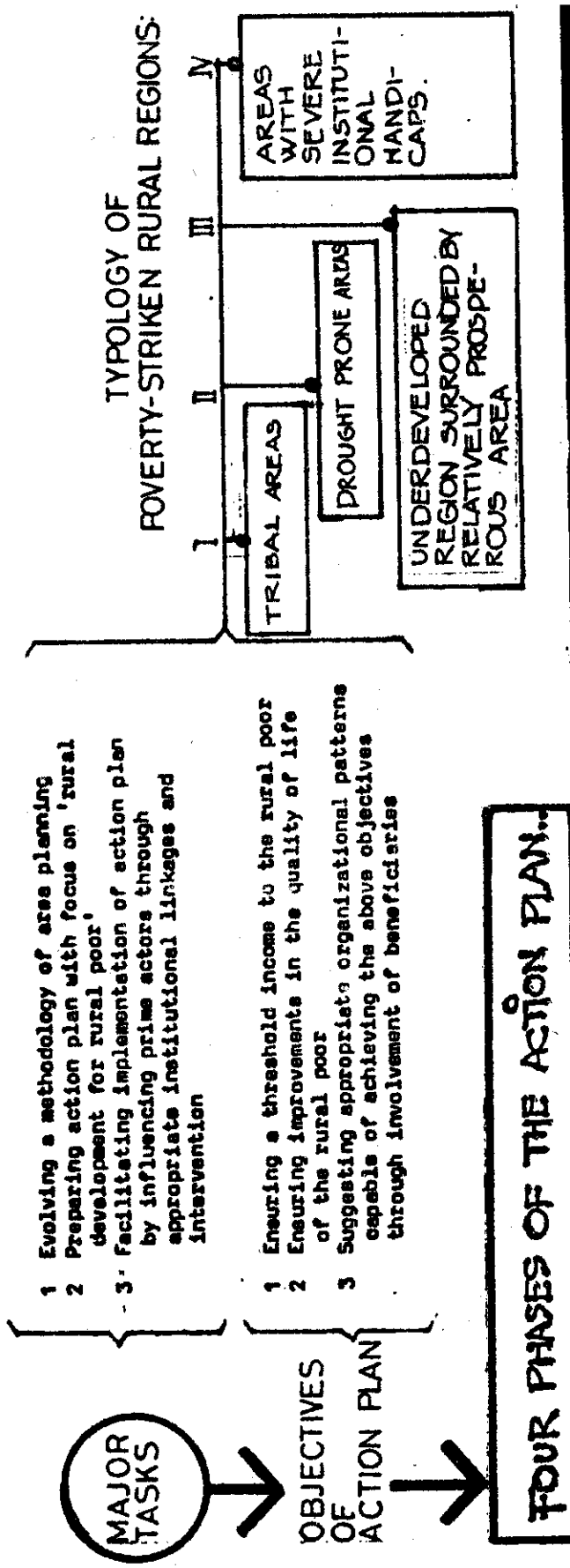
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METHODOLOGY
INSTITUTIONAL LINKAGES
AND
SOME INSIGHTS

Keeping in view the work-culture, norms, and requirements of the Institute we decided to confine our action research activities to achieve the following aims or tasks. (See diagram 1):

- 1 To understand the problems of the rural poor living in typically poor and underdeveloped regions, and suggest ways to improve their economic conditions and quality of life through area planning, i.e., through various kinds of interventions such as technological, structural, and institutional. (For this purpose we classified the poor or underdeveloped regions into four categories: a tribal area, a drought-prone area, an area with severe institutional handicaps, and a poverty region surrounded by relatively prosperous areas. Keeping this in view, we chose Dharampur as the tribal area and Deogarh tehsil in Udaipur district of Rajasthan as the drought-prone area.
- 2 To identify the important 'building blocks' of an economy or a society or a polity and the 'constraints' on its growth. (This would involve inter alia study of the available productive resources, their distribution within the area and among different sections of the population, and the utilization of these assets so as to grasp how the various sections of the population derive their livelihood?)

IIMA PROGRAMME OF RESEARCH



- 3 To understand and highlight the way in which the existing institutions promote or hinder the well-being of the poor.
- 4 To evolve a methodology of area or micro-level planning.
- 5 To examine various organizational patterns capable of ensuring a threshold income and improving the quality of life of the rural poor.
- 6 To encourage and assist relevant agencies and institutions to participate as far as possible in one or more of the foregoing tasks. (This would help in developing the research and planning competence of these agencies/institutions which in turn might encourage them to take up on their own similar tasks in the future).
- 7 To prepare an action plan in consultation with relevant official and non-official agencies; wherever necessary in collaboration with technically competent institutions. (This would help us in establishing linkages with institutions which are likely to be associated in the implementation of the proposed action plan).
- 8 To keep in touch with these agencies and institutions and gain insights into their working.
- 9 To advise the agencies implementing the action plan.
- 10 To improve through these interactive processes our understanding of the process of development.
- 11 To act as a lobby for the rural poor.

In short, we felt that given the work-culture and requirements of the Institute on the one hand and the broad objectives of the five-year programme of research on the other we should work in two directions:

- 1 As researchers create through the programme itself a learning space to develop better understanding of the rural situation and explore whether this knowledge could be applied to evolve a methodology of area planning with focus on 'rural development for rural poor'.
- 2 As action researchers try to (a) transfer this knowledge to those concerned with rural development/area planning, (b) gain further understanding of the process of development, (c) develop institutional linkages to facilitate implementation of the action plan, and (d) act wherever necessary and possible as a lobby for the rural poor.

As a group we met frequently, visited Dharampur repeatedly, drew up work schedule, held discussions with many people including the villagers, took copious notes of what we saw and discussed, exchanged these notes among ourselves, met again to review them, prepared from time to time outlines of what we proposed to study and why and how?, held brainstorming sessions on all major issues, differed sharply and knocked our heads to arrive at a common understanding. That is how we evolved the methodology of our study and followed it all along to complete most of the tasks we set ourselves to achieve as researchers.

Unit of Planning

We faced two initial problems: What should be the unit of planning? And which of the areas falling in this category should be selected for project planning?

We resolved the first problem by accepting the fact that the lowest unit of planning in the country has been the block or taluka. Economically this is generally a viable unit at the micro level. Administratively also it is a well-defined unit which is neither too small nor too large or unwieldy as a district. Physically, even socially, it may not be a homogeneous area. But until such areas are demarcated, keeping their viability in view, and made an integral part of the development administration we felt that a block or taluka would continue to be the lowest and most easily replicable unit of planning.

We further decided that for logistic reasons the first project should be located in Gujarat in case there was a reasonable assurance that some viable agency like the state government would implement it. Keeping these considerations in view, we discussed with senior state officials, specialists and activists concerned with the development of the tribal areas.

The state government showed keen interest in the project. A number of talukas in different districts were suggested for preliminary visits and screening. Extensive tours of these areas, including discussions with local officials and non-officials at various levels, eventually led to the selection of Dharampur, one of the poorest tribal talukas in India.

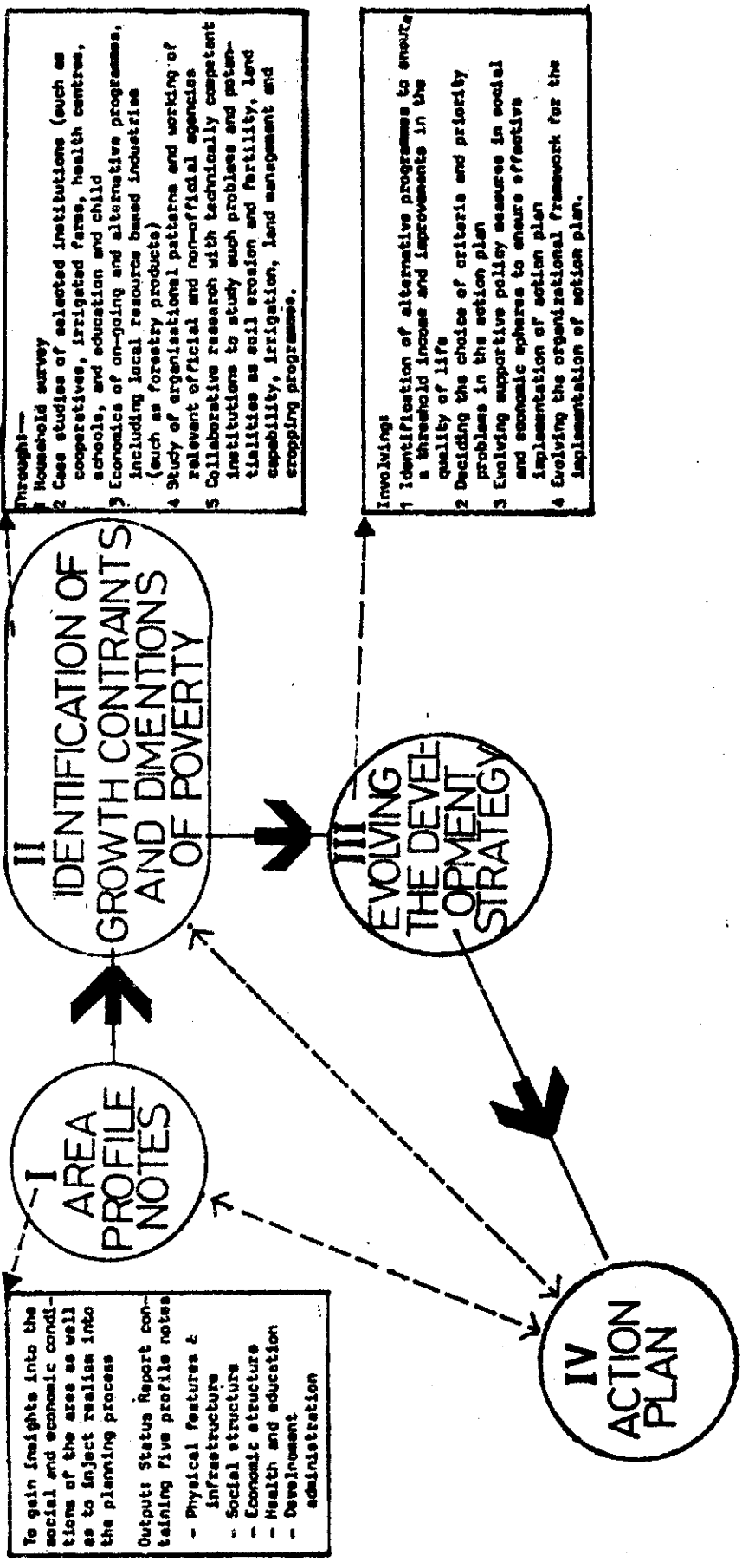
Research Methodology

After the area was selected, the steps to be taken to prepare blueprints for its development were identified. Side by side, the research methodology to be followed was evolved. Three successive stages of project planning, each involving a different methodology, emerged from this exercise. (See diagram 2):

- 1 Preparing a profile of the region: To gain insights into the social and economic conditions in the area as well as to inject realism into the planning process and facilitate subsequent data collection, we adopted the device of area profile notes. Using this device as a research tool, we prepared a monograph containing five profile notes, each dealing with a separate but interrelated aspect: physical features and infrastructure, social structure, economic structure, health and education, and development administration.¹

¹ See Rural Development for Rural Poor: Dharampur Project -- The Setting, Vol I, CMA Monograph 62, IIM, Ahmedabad, 1975.

METHODOLOGY OF AREA PLANNING :



2 Identifying the nature and dimensions of poverty and constraints to growth: This involved:

- a) Intensive field surveys through structured questionnaires to identify the nature and dimensions of poverty in the area. (Based on stratified sampling method, field data on almost all aspects of living were collected from 106 households in six villages of the taluka).
- b) Case studies of selected institutions -- a forest labourers' cooperative, a credit cooperative, an irrigated farm, a primary health centre, and an ashramshala.
- c) A psycho-social study of education and the child in Dharampur based on participation-observation method.²
- d) The economics of ongoing and alternative forestry programme, including forest-based industries, according to survey method.
- e) Discussions and case method to study the working, organisation, effectiveness and potentiality of various development agencies (both official and non-official) functioning in the area.
- f) Collaborative research with technically competent institutions to study such problems

²The study was conducted on our request by Mrs Pamela Reynolds.

and potentialities as soil erosion and fertility, land capability, irrigation, land management and cropping programmes.

3 Evolving the development strategy: Using the findings of the above studies we prepared an action plan for the development of Dharampur taluka.³ This involved:

- a) Identification of alternative programmes to ensure a threshold income and meaningful improvements in the quality of the tribals of Dharampur.
- b) Deciding the choice criteria and priority items in the plan of action.
- c) Evolving supportive policy measures in social and economic spheres to ensure effective implementation of various programmes of development.
- d) Evolving the organisational framework, both governmental and non-governmental, for the implementation of these programmes.

Strengths and Weaknesses

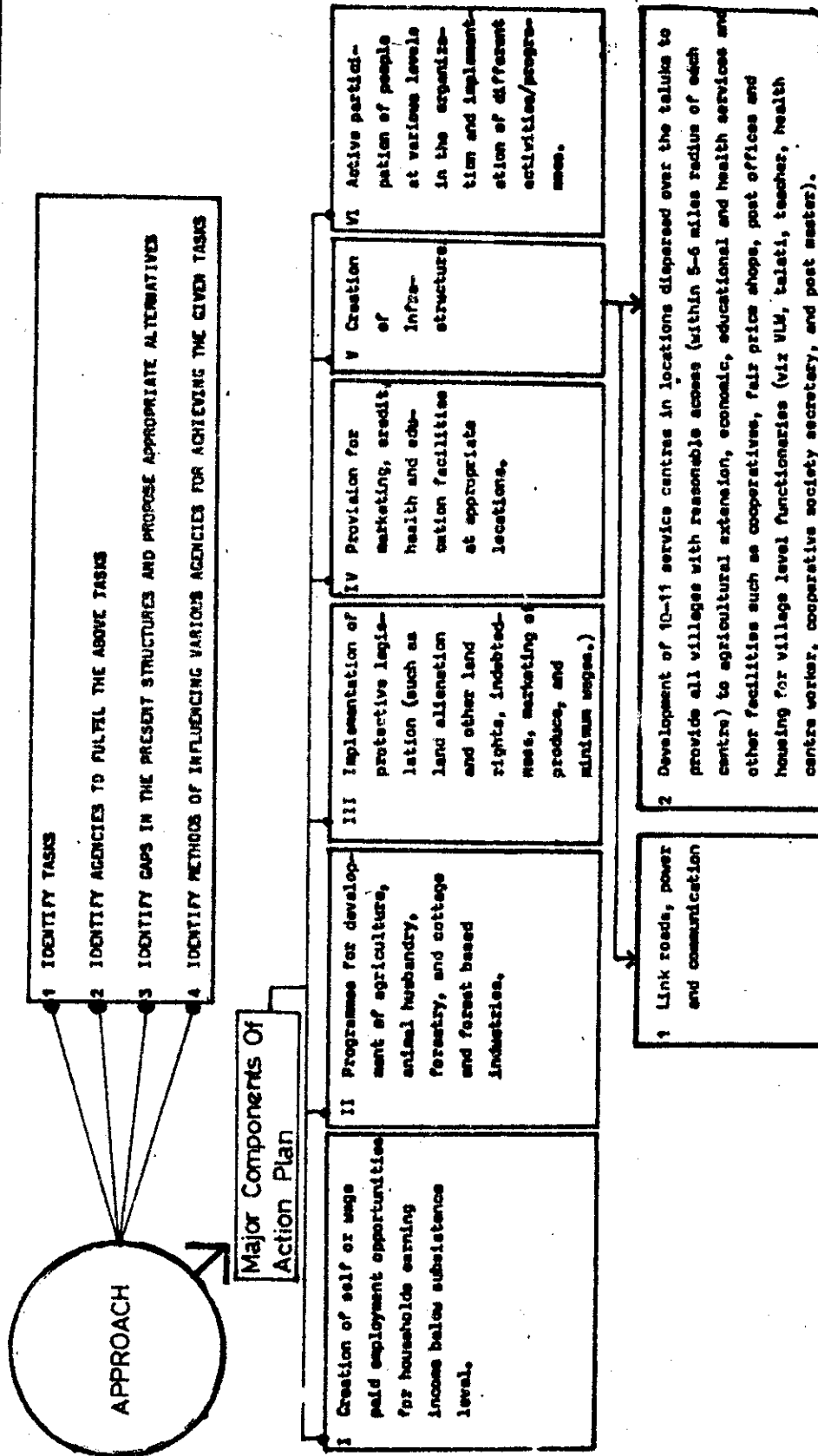
The methodology we adopted helped us immensely in acquiring a fund of knowledge on the area and its people in the shortest possible time. While the insights we gained from the data thus generated helped us in determining the broad contours of

³ See Rural Development for Rural Poor: Dharampur Project — The Contours of Poverty and a Plan for Action, Vol II, CMA Monograph 63, IIM, Ahmedabad, 1976.

the action plan, we could not develop the methodology to the extent needed for preparing technically sound blueprints for rural development projects. Barring a few exceptions, my own assessment is that our action plan indicated the relative importance of various sectors, including infrastructure, in the social and economic life of Dharampur, the type of programmes -- both sectoral and infrastructure -- which ought to be undertaken to generate employment and income for the rural poor, the investment or outlay needed for this purpose, and the programme-wise breakup of this outlay. (See diagrams 3 and 4).

The strength of the methodology we adopted lies in its emphasis on identifying various constraints inhibiting the development of a region or a people. Our experience shows that unless this is included in the methodology of area planning, the planners are unlikely to gain a realistic understanding of the problems and needs of the rural poor or, for that matter, of the area under planning. Here is an example. When we started visiting Dharampur many of the local development functionaries and the so-called knowledgeable people whom we met told us that the tribals of Dharampur were poor because they were lazy, ignorant, irrational and opposed to using improved technology such as better seed variety. That such views are totally unfounded can be seen from the following findings:

ACTION PLAN : APPROACH AND MAJOR COMPONENTS



- 1 In the course of field investigation we observed that a large number of farmers in the area were growing two varieties of the same crop such as paddy and 'nagli', a kharif foodcrop: one maturing early but giving a low per acre yield, and another maturing 20-30 days later but giving a higher per acre yield. 'Nagli' is grown by almost all tribals in the area. Paddy is grown by those possessing more fertile lands.
- 2 Further investigation showed that the smaller the holdings the greater was the proportion of land allocated to the first variety i.e. early-maturing but low-yielding. Apparently this seems an irrational decision: one person not only growing two varieties of the same crop but also allocating a larger part of his meagre land resource to grow the poorer variety.
- 3 The household survey revealed some alarming facts. As many as 67 of the 106 households (i.e. over 63 per cent of the total survey households) reported that nearly all adult members of the household had to go without food on an average for 23 days a year. Out of 398 members belonging to 67 households as many as 200 starved throughout the day for some days, though not consecutively, and missed one meal on some other days. Using one starvation day (no meals throughout the day) as equivalent to one meal a day for two days, this group of 200 persons starved on an average 29 days in a year. Another 30 persons went without meals throughout the day for 12 days in the reference year (1974-75). A third group of 46 persons had only one meal daily for 22 days in the reference year i.e. they starved on an average 11 days in a year.

- 4 Nearly 80 per cent of the cases of no meals throughout the day occurred during June-September, and about 50 per cent of the cases of one meal a day in October. This is the period when kharif crops are planted and harvested.
- 5 By the end of April the harvested stock is all but consumed. With virtually nothing left in the larder⁴ the tribals have no option but to borrow from village shopkeepers, moneylenders, and grassland owners. These loans which are usually taken in foodgrains are locally called khauti meaning 'to eat'. Depending on the quantum and duration of these loans the interest rate varies from 50 to 100 per cent. "Such credit has pervaded the life of the tribals so long that they refer to any credit, informal or formal, as khauti. In fact the term seems to have lost its traditional connotation, and khauti is now given on the understanding that it will be repaid either in cash or grain or labour."⁵
- 6 It is to get over these day-to-day borrowing problems as also to obtain as early as possible some foodgrains from their own resources that the tribals grow the early-maturing low-yielding variety. And to repay these loans

⁴When the larder is empty the tribals in the area eat whatever is readily available to them -- from borrowed coarse grains to the grains of wild grass such as 'sava' and even poisonous roots such as 'kanda'. To eat this poisonous root they first cut it into circular pieces and put them in a basket. The basket soaked with water is kept in store for a night. Next morning it is washed and boiled with fresh water. If chillies or 'chatni' are available so much the better. Otherwise the boiled stuff is eaten with no other ingredient except salt.

⁵"Formal and Informal Credit Supply Sources", BM Desai, Planning for Tribal Development, Ranjit Gupta (ed), Ankur Publishing House, New Delhi, 1977.

as well as to derive some cash income they grow the late-maturing but high-yielding variety. The early variety also happens to be more drought-resistant.

These findings show that farmers' decision to allocate land to alternative crops or different varieties of the same crop is not irrational. If he opts for a cheap or inferior technology, it does not necessarily mean that he has no knowledge of the benefits of improved technology or that he does not know how to apply it. His decision is based on empirical observations and a clear understanding of the limited options he has because of his subsistence, risk and uncertainty constraints.

Institutional Linkages

Our research tasks were considerably facilitated by the steps we took to establish linkages with development administration at various levels and other institutions, including local voluntary agencies. We also tried to use these linkages as a device to sensitise these bodies on the hope that it would help the adoption and implementation of the action plan at a later stage. It worked in some cases, in others it did not.

DETAILS OF DHARAMPUR ACTION PLAN

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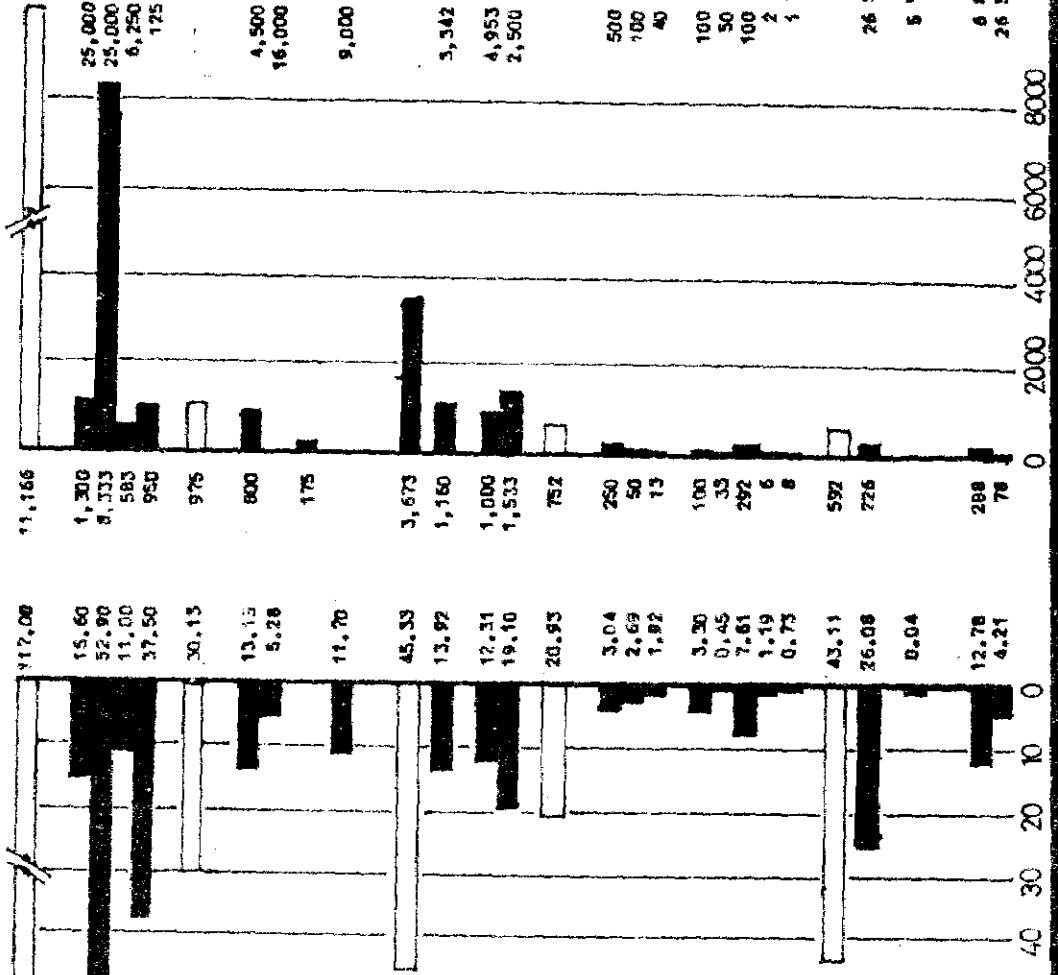
Programme

Annual Ave. Addnl Annual
Outlay (Rs Lakhs) (Man-Years)

Programme
Coverage in
Five Years

Outlay for
Five years
(Rs Lakhs)

- PHYSICAL & AGRICULTURAL INFRASTRUCTURE
 - e) Soil Conservation
 - b) Kymt development
 - c) Irrigation
 - d) Roads
- AGRICULTURE & ANIMAL HUSBANDRY
 - a) fodder cultivation
 - b) poultry (five improved breed chicks to each household)
 - c) Milch cattle (one milch cow to each household)
- FORESTS
 - a) Soil and moisture conservation
 - b) Plantation & Silviculture
 - c) Extension forestry Scheme
- COTTAGE & FOREST BASED INDUSTRIES
 - a) Khadi spinning
 - b) Khadi weaving
 - c) Mahua oil extraction by ghena
 - d) Beedi making
 - e) Bamboo basket making
 - f) Agave fibre extraction
 - g) Wood seasoning
 - h) Wooden furniture
- HEALTH AND EDUCATION
 - a) Ashramshalas and Primary school
 - b) Upgrading of Std 1-2 schools to std 1-3 schools
 - c) Primary Health Centres
 - d) Sub-centres



Programme	Programme Coverage in Five Years	Outlay for Five years (Rs Lakhs)
PHYSICAL & AGRICULTURAL INFRASTRUCTURE		585.00
e) Soil Conservation	25,000 Acres	78.00
b) Kymt development	25,000 "	264.50
c) Irrigation	6,250 "	55.00
d) Roads	125 Nos	187.50
AGRICULTURE & ANIMAL HUSBANDRY		150.65
a) fodder cultivation	4,500 Acres	65.75
b) poultry (five improved breed chicks to each household)	16,000 Households	26.40
c) Milch cattle (one milch cow to each household)	9,000 "	58.50
FORESTS		226.65
a) Soil and moisture conservation	3,342 Acres	69.60
b) Plantation & Silviculture	4,953 "	61.55
c) Extension forestry Scheme	2,500 "	95.50
COTTAGE & FOREST BASED INDUSTRIES		104.65
a) Khadi spinning	500 Units	15.20
b) Khadi weaving	100 "	13.45
c) Mahua oil extraction by ghena	40 "	9.60
d) Beedi making	100 "	16.50
e) Bamboo basket making	50 "	2.25
f) Agave fibre extraction	100 "	38.65
g) Wood seasoning	2 "	5.95
h) Wooden furniture	1 Unit	3.65
HEALTH AND EDUCATION		215.56
a) Ashramshalas and Primary school	26 Schools	130.40
b) Upgrading of Std 1-2 schools to std 1-3 schools	5 "	0.20
c) Primary Health Centres	6 PHCs	63.90
d) Sub-centres	26 Sub-centres	21.06

At our instance the state government appointed two coordination committees, one at the state level and the other at the district level. The state level committee included, besides us, the Additional Chief Secretary as chairman and secretaries or heads of various state departments. The district level committee included, again, besides us, the Collector as chairman and heads of various district departments including the Tribal Development-cum-Project Officer of Dharampur and a couple of his extension officers.

The state-level committee met twice. Both these meetings were held within a couple of months from the time we launched the study. The committee directed all government departments in the state to furnish to us whatever information we needed to carry out the study. At the second meeting collaborative arrangements for conducting the following studies were finalised:

- 1 Survey of employment-income-consumption in Dharampur taluka covering 24 selected villages: We prepared the survey design and the schedules of enquiry. The Bureau of Economics & Statistics, Government of Gujarat, conducted the survey on our behalf and returned the filled in questionnaires to us.

- 2 Land capability and land use mapping: The Soil Survey Department, Gujarat Government, conducted the study and gave us the survey report including a set of six technical maps revealing the land capability and land use pattern of the entire taluka. The department also helped us in interpreting the technical findings.

- 3 Development potentials of Dharampur forests: In consultation with forestry officials we identified the type of information needed by us. The State Forest Department conducted the study according to the design we jointly evolved and let us make use of the findings.

Some other studies, such as soil profile and survey of geological and water resources, which we hoped would be got done through similar collaborative arrangements had to be dropped because it was not possible for the concerned departments to take up the assignment. In some cases, we also overestimated our data requirements. The survey of rural households in 24 villages which the Bureau of Economics & Statistics conducted on our behalf is a case in point. We could make very little use of this massive data largely because we found that the household survey we ourselves conducted was more than sufficient.⁶

⁶ Having become wise after the event we have taken care not to repeat this mistake in the second action research project.

While the state level coordination committee considerably facilitated our task of collecting relevant data from government departments or through institutional collaboration, it could not help us in realising the more important objective: that of facilitating the adoption and implementation of the action plan. The Additional Chief Secretary who headed the committee retired just about the time we came out with the action plan. With his retirement the committee ceased to function.

We tried other channels to push this objective. We held national and state-level seminars to propogate this objective among others. The national press published the proceedings and recommendations of these seminars. A complete account of one such seminar was published in a book form by a commercial publisher. As a result of these Dharampur Project became both nationally and internationally known. But neither the central nor the state governments took any positive step to include it in the state's Tribal Sub-Plan, which was one of the understandings we had reached through repeated discussions with authorities concerned. We held a district level seminar hoping that it would generate some pressure from below to get the action plan implemented. It did generate some new ideas which we took up for further action research. But the enthusiasm the seminar created among some of the local leaders and officials had disappeared when we visited next -- a gap of only 7-8 days.

We brought out a booklet in Gujarati giving a gist of the two research monographs on Dharampur Project. Copies of this booklet were given to all who participated in the district-level seminar. Copies were also distributed among village leaders and workers of voluntary agencies located in Dharampur taluka. Despite these efforts to popularise the project, it remained a notional plan. Finding that we were moving nowhere we adopted another strategy. And it worked at least partly. More about it later.

The district-level committee was useful for initiating the sensitization process at the local level. Some of the interventions we made through this committee to push the implementation idea were useful. But the gains in relation to our aims were far too little. A major problem which we faced in interacting through this committee or even through individual district and taluka officials was the speed at which they got transferred. Since we visited the area first it has seen six collectors, five DDOs, and three TDPOs. Every time a new person joined we had to start afresh. Tell him all that we did. Why we did it? What we would like him to do? Why? And so on.

Usually, whenever we visited Dharampur, which we did quite frequently in the initial years, we stayed in the zilla parishad guest house in Bulsar for a day and in Dharampur for 2-3 days or more at a stretch. We would stop over in Bulsar mainly to meet

the district development officials and acquaint them with our findings. During the research and survey phase our primary objective was to gather information and insights. After the action plan was ready the objective was to facilitate its implementation.

In Dharampur we tried to meet as many persons as possible: villagers, school teachers, development functionaries from village to taluka level, local or public leaders, and workers and heads of voluntary agencies in the area. We would meet the last named group quite often and discuss the problems of the area and their possible solutions. We also tried to interest them in taking up some development tasks identified in the action plan. Generally they showed a keen interest in taking up some activity, even a new activity. Being independent and able to take decisions on their own two agencies reacted quickly by picking up some suggestions made in the action plan. In relation to the magnitude of efforts needed to ensure a threshold income to the tribal poor what they have picked up for action is rather insignificant -- starting of a primary school, tree plantation to promote forestry and employment, and some wood-based employment activity. But in relation to their resource and capabilities the new responsibilities they have assumed represent a sizable contribution.

At the request of one of these agencies we took a couple of NID experts to the area a few months ago. Nothing has emerged yet. But it is likely that NID will help this agency to promote some local craft for improving the skills and incomes of local artisans which in turn may set in motion a new educational process.

We also tried to involve one of the agricultural colleges located nearby. The college agreed to assist us in preparing plans for the development of agriculture. We met a few times and exchanged some correspondence. And the matter ended there.

In the survey stage we included in our team three teachers of a local college of commerce. The main idea was to improve their understanding of the rural situation and also to impart some practical training in social research. We do not know how far they have been benefited, but they did their tasks well.

A Success Story Via Computer

Setting up of 'service centres' in the taluka to provide minimal infrastructure, health and education facilities constitute an important component of the action plan. This component was emphasised because:

- 1 Over two-thirds of Dharampur's population live in hilly 'dungar' region which covers more than 82 per cent of the total area of the taluka. Almost the entire region remains inaccessible throughout the monsoon. Poverty in this region is more severe than in the low-lying 'talat' region.
- 2 The village level functionaries, including primary school teachers, posted in the 'dungar' region seldom stay at their work place. For months they do not even visit the area.
- 3 Very few villages in this region have such basic minimum facilities as primary school and health centre. Because of problems of inaccessibility other villages situated within a radius of 8-30 miles are unable to make use of them.

To rectify this situation we suggested the setting up of service centres to provide the following minimal facilities: agricultural extension, primary schools/ashramshalas, public health centres, cooperatives, fair price shops and post offices. In each service centre the functionaries responsible for these services were to be provided residential accommodation.

Another equally important objective of setting up service centres was to provide all villages with reasonable access to economic, educational and health services. Accordingly, it was decided that service centres should be so located that each would serve a cluster of villages within a five-mile radius so that

the walking time to a centre from any of these villages did not exceed an hour and a half. It was also felt that to provide infrastructure for agricultural, animal husbandry, forestry and other programmes all-weather pucca roads connecting the service centres to the state highways should be constructed.

In line with these objectives an analysis was made to choose suitable locations. Some of the considerations in choosing a village were whether it had one or more of the required facilities, its size or importance in terms of population, growth potential, and linkages with adjoining areas, and its proximity to highways and 'hat' (weekly village market). Based on this analysis 44 of the 237 villages in the taluka were selected for locating 44 service centres. Besides these, Dharampur, the taluka headquarters, was already a full-fledged service centre. (See Map).

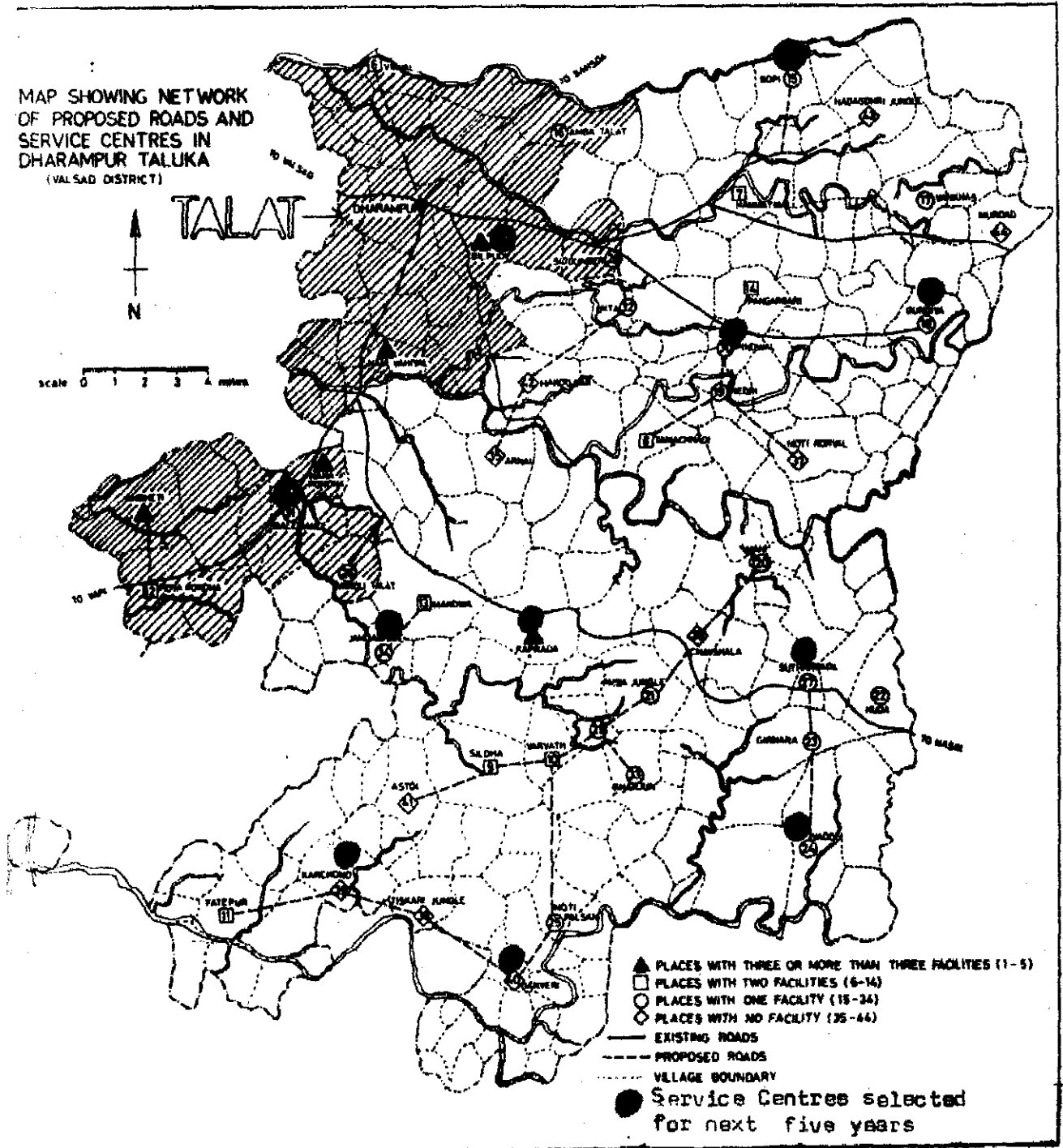
Once the service centres were specified the next task was assessment of the costs involved. The construction of the 44 service centres was estimated to cost Rs 55 lakhs. To estimate road costs, which were expected to be sizable, we approached the Public Works Department. A quick and rough estimate indicated that to connect the 44 service centres with the

nearest highways new or additional all-weather pucca roads totalling about 400 miles in length would have to be constructed and that this would cost about Rs 9 crores. Since the total outlay for the taluka under the five-year Tribal Sub-Plan was expected to be no more than Rs 13 crores, it was clear that a road programme of this order would be neither feasible nor desirable even if it were to be spread over ten years. It was at this stage that the first attempt at applying operations research was made. Commenting on the problem Professor Nitin R Patel, who resolved it, writes:

"Specifically the problem was to find the minimum cost road network to connect the forty four service centres to the existing main highways. For this purpose a simple modification of the minimal spanning tree algorithm of Kruskal was employed. The only modification required was to introduce an artificial 45th node to represent the existing system of highways. The distance of this node to each of the 44 service centre nodes was the shortest distance of the service centre to the highway system. It is easy to see that this device would provide the optimal solution that was required. To translate shortest (Euclidean) distances between the nodes to costs it was found that a factor of 1.5 needed to be applied to shortest length to convert it to likely actual length for the kind of terrain existent in Dharampur taluka. The PWD uses this ratio in making its estimates for this region. In addition, the cost per mile of road was also supplied by the PWD."

⁷Operations Research in Planning for Dharampur, Working Paper 166, Nitin R Patel, IIM, Ahmedabad, 1977.

MAP SHOWING NETWORK OF PROPOSED ROADS AND SERVICE CENTRES IN DHARAMPUR TALUKA (VALSAD DISTRICT)



The total cost of the road network thus calculated came to about Rs 1.9 crores. In contrast the PWD had envisaged a different network costing about Rs 9 crores to connect the 44 service centres to the existing main highways. This wide difference was a big selling point for us.

The service centre idea received the widest support at the district-level seminar. It was at this seminar that we found that the Rs 55 lakhs required for construction of 44 service centres, as suggested in the action plan, would not be available in the five years period. About Rs 14 lakhs were at best expected to be available with which only 11 or 12 service centres could be set up. This new possibility provoked a heated discussion at the seminar. Local leaders, the most vociferous of whom came from the fertile 'talat' region, and some officials argued that service centres in the 'talat' region be given priority. One of their arguments was that these were more likely to be successful due to the better economic and educational standards of the populace there. They argued that tackling 'easy' areas first would provide initial success which would have an important demonstration effect for future service centres. On the other hand, workers of local voluntary agencies argued that the objective of the plan was to improve the conditions in the poorest parts of the taluka and so service centres should be set up in the 'dungar'

region first. In view of this conflicting demands we decided to use an objective criterion to choose locations which would ensure a balanced level of service to the entire region. The criterion we chose was to minimize the maximum distance of any village from a service centre subject to the budget not exceeding 14 lakhs. Professor Nitin R Patel employed an operations research model to make this choice since an exhaustive enumeration of all combinations was infeasible.

The model again did the trick. It selected 11 of the 44 service centres (see Map). As against Rs 55 lakhs needed for setting up 44 service centres, the cost of setting up the selected 11 centres was only about Rs 14 lakhs. "An interactive programme with video-display was developed. The purpose of the programme was to facilitate understanding and acceptance by decision-makers of the optimal nature of the solution arrived at by integer programming. The programme showed an outline of Dharampur taluka and the 44 potential sites for service centres on the video screen. Using a teletype the user could enter the required service level and identify successively his choices for service centres. The video display drew circles with radius equal to the service level around each choice. It also flashed the total cost of the chosen centres. Thus interactively the user

could explore the implications of various alternative choices of service centres. The programme could also assist in investigation of near optimal solutions should this prove to be useful."⁸

We showed the interactive programme with video-display to local officials, senior state officials, members of the Gujarat State Planning Board, etc. It was the video-display rather than the complicated OR model which convinced them that the solution was optimal. We encouraged them to fiddle with the programme and identify the selected centres or any number of centres with two constraints in view: that the cost of setting up the number of centres thus selected should not exceed Rs 14 lakhs and that together they should cover the entire taluka with each covering a cluster of villages within a radius of 5-6 miles. The dotted circles flashed in the display screen, the cumulative cost of the chosen centres, the fiddler's inability to resolve the problem followed by the flashing of the optimal solution on the video screen were sufficient steps to drive the point home.

Official acceptance of this solution, however, continued to elude us until we showed the video-display programme to some of the cabinet ministers of the state. The solution has been accepted but work on the setting up of the selected service centres is yet to begin.

⁸ Ibid, pp 11-12.

A state government committee is now looking into the action plan. The committee is empowered to take decisions on its own. By bits and pieces activities suggested in the action plan are getting introduced to the taluka (see annexure). Such piecemeal efforts, though based on the ideas given in the action plan, will cost a lot but yield precious little for the tribal poor.

Action Research: Some Unresolved Questions

What is action research? I asked this question to my colleague, Professor Ravi J Matthai, the initiator of a novel experiment: 'The Rural University', popularly known as the Jawaja Project.⁹

He said:

"Research is sophisticated impatience for results. Action is patience for unsophisticated results."

There is great wisdom in these words. They sum up the dilemma of action researchers working amidst activists on one side and researchers on the other. Between them the action researcher is perceived as a good-for-nothing fellow. Prof Matthai, however, did not spell out what action research means? As a group we debated this question at length. The debate continues. But for

⁹ See Experiments in Educational Innovation of 'The Rural University', narrated by Ravi J Matthai, Indian Institute of Management, Ahmedabad, 1978.

conducting the first few action research projects, the following statement stands:

"Though an action programme can be interpreted differently by different people, one thing is certain: the action for any developmental programme in rural areas is more often than not instituted at the level of a household or an enterprise. An outside agency can rarely organise direct action; it can only influence those who will eventually implement programmes in fields and factories, in schools and health centres, in cultural, social, and political institutions. The action part of the action research is to influence the prime actors by appropriate interventions...

"Often the choice of agencies to be influenced or the mode of the action that these agencies have to adopt is not clear. This calls for research. Given the objectives of the research group, action research in this sense is a search for (a) appropriate agencies, appropriate programmes, and appropriate methods for implementing programmes, and (b) an appropriate strategy to influence prime actors to facilitate the implementation of the programmes...

"Two more elements of this approach may be noted. First, as mentioned above, in the RDRP programme, the main objective is to create a facilitating or an inhibiting environment for certain actions, and leave the individual free to respond to these stimuli. No attempt is made to prescribe for each individual household a predetermined course of action. As a matter of strategy those interventions

are preferred which can influence a whole group. Sheer economy of operations suggests the above mentioned approach.

"Second, the RDRP programme lays great emphasis on activating existing agencies and their functionaries rather than by-passing them or creating alternative, parallel agencies. However, this should not be construed to mean that RDRP is a systems supportive programme. Wherever existing arrangements are found wanting or are felt to create difficulties in achieving the given objectives other feasible alternatives will be identified and evaluated. The rationale for working with the existing agencies, to the extent possible, is to maximize the benefits from the investments - human and material - already made.

"To sum up, the approach to the action programme envisages the following steps: (a) to identify tasks; (b) to identify agencies and instruments to achieve these tasks; (c) to identify gaps in the present structures and propose appropriate alternatives, and (d) to identify methods of influencing these various agencies for achieving the given tasks."⁹

We have operated within the framework of this statement. We may have chosen the right intervention strategy but may have erred in identifying the agencies and instruments. We may have chosen the right agencies but may not have made as much effort as we should have. Whatever be our error of judgement the fact remains that action on action plan has so far yielded poor

⁹Dharampur Project, Vol II, op. cit., pp 107-109.

results. We could of course explore alternatives within the framework of the above statement. But whichever way we may look at it is apparent that it will take more time before the results become visible assuming of course that our past and future efforts will yield some visible results. These questions raise a whole lot of other questions e.g.:

- 1 How long are we prepared to wait or work for achieving visible results?
- 2 How do we judge or measure results? Shall we measure them from the point of view of:
 - * the poor, or
 - * the identified agencies, or
 - * our relationship with the identified agencies, or
 - * the research requirements of the Institute?
- 3 If by intervening at or through the identified institution we do not find visible results (i.e. improvement in the condition of the poor) appearing on the horizon, what shall we do? Shall we change the intervention strategy? Or, the institution? Or, shall we prepare a new action plan?
- 4 Supposing we find that to ensure a threshold income to the poor some viable organization of the poor, militant or otherwise, is needed, could we take the risk of promoting such an organization?

Not all may agree that these are relevant questions. Some may view some questions relevant, but not all. Some may object to the last question in particular on the ground that it raises a politically sensitive issue. It does because rural poverty is a political reality rooted in the very structure of society. It is true that it would be unrealistic, even absurd, to conceive of a programme at the grassroots level which would transform this structure. But how does one loosen even very feebly the grip of those who control the institutions and channels through which development aids and services pass ostensibly for the rural poor, but in reality siphoned off along the way by the very section which controls the channels? Obviously by developing viable organizations of the poor. Partly because of the absence of such organizations that it has become easier even for such well meant institutions as cooperatives, banks, and input supply agencies to collude with the very channels in which power is at present vested.

But how does one organize the rural poor? What kind of approaches or strategies should one follow to develop such organizations? While we do not have answers to these questions, the basic problem seems to be one of finding a method by which the desired changes could be integrated into the ways of living of the people for whom the changes are intended.

According to our colleague, Prof TK Moulik, the intervention

techniques which have been tried to realise this aim could be classified in terms of their approach to change into two broad categories: 'harmony model' and 'conflict model'.

The basic assumption in the harmony model is that "all different interests at the community or regional level can be developed simultaneously".¹⁰ The model assumes that not only development can take place but also the rural masses can be mobilized without major social conflict. "As in the community development programme ... this model assumes that the rural people want and can sustain economic progress themselves as soon as they have been shown its advantages and that the changes must and will come about democratically and through voluntary participation, that is, in response to the felt needs of the villagers. It is also believed in this model that innovations -- be they technological, institutional or structural -- can be introduced in a rural community through proper extension and service activities over a period of time by utilizing established local leaders, influential people, and progressive farmers. A large majority of the rural people may not participate in this innovation-introduction programme, but through democratic influence, demonstration and percolation effects the majority can be mobilized to support the programme".¹¹

¹⁰ Techniques of Mobilizing Rural People to Support Rural Development, TK Moulik, Working Paper No 17, Indian Institute of Management, Ahmedabad, 1977.

¹¹ Ibid, pp 23-24.

To put it simply, the harmony model favours change including mobilization of the people through technological interventions and organizational innovations, but without disturbing the existing social and political structure. Most of the development efforts or programmes in India and other Asian and African countries (e.g. Comilla Project in Bangladesh and Ujamma Village Programme in Tanzania) fall in this category. In most cases attempts have been made to introduce organizational innovations at the community level by adopting the following strategy:

- 1 Identifying the 'felt needs' of a given community in a given area through discussions with local functionaries, village leaders and knowledgeable members of the community; in some cases also by conducting field surveys.
- 2 Prioritising these needs either as indicated by the articulate sections of the community or, as is generally the case, in terms of the objectives, orientation, and resource position of the agencies themselves.
- 3 Introducing or improving certain social and/or economic activities with a view to fulfil some or all of the 'priority' needs.
- 4 Assisting the community or, in some cases, the beneficiaries to form a body of their own with a view to facilitate management of these activities as well as to improve their management capabilities.

5 At all these stages maintaining close contact with the community or the beneficiaries.

The results of these attempts have been varied, in most cases disappointing as far as promotion or establishment of viable organization of the poor is concerned. However, to be fair, mention may be made that the possibilities of developing organization of the poor within the harmony model have been neither fully explored nor exhausted. Some new experiments started recently are in progress. It would be appropriate therefore to watch and observe the growth, functioning and achievements of these projects for some more time to arrive at a correct decision.

The basic assumption in the conflict model is that the rural poor can be mobilized only when they are sufficiently discontented about any concrete event or a situation signifying the potentiality of an acute conflict. The model assumes that these conditions could be brought out with a view to organize the rural poor by adopting the following strategy:

"In order to identify the potential conflict situation, an organized effort is needed to evaluate the class contradictions prevailing in the system. Having identified the potential conflict situation, deliberate escalating actions are to be undertaken first through a conscientisation programme. This is basically an educational and politicisation process utilising certain elements of the rural life and culture (e.g. folk tales, village history,

present and past land tenure system, jokes and tales etc) which are essentially considered as 'counterpoints' to the 'culture of repression' in which the poor live. These counterpoints make the rural poor aware of their position in the society. Once this happens it become relatively easy to organize and mobilize the rural poor for the action programme to follow".¹²

The main thrust of this model is on structural interventions because in most situations the potential point of conflict lies in the existing socio-political structure. But to begin with it emphasises the need for picking up issues which are legally justified such as enforcement of minimum wages and tenancy laws. Even here the initial emphasis is on taking such steps as filing petitions to competent authorities and holding public meetings to rally support for the petition. Gradually the emphasis shifts to stronger forms of protests such as strikes and demonstrations culminating into a symbolic direct action like non-violent civil disobedience. Uptil here there is virtually no difference between these and the Gandhian techniques of mobilizing the masses except that the conflict model emphasises the need for picking up only those issues which divide the poor and the rich as classes with conflicting interests.

¹²Ibid, pp 26-27.

The conflict model has also been used by some groups in the country to organize the rural poor. Like the harmony model, the results of these experiments have been varied; in most cases disappointing as far as growth of viable organization of the poor is concerned. But there are some notable exceptions too. It would be unrealistic therefore to altogether ignore the potentialities of this model. Some of the difficulties of trying out the model, however, need to be noted:

- 1 It demands a highly ideologically motivated or politically committed cadre of workers and an active mass-based organization.
- 2 It demands a strong leadership which creates its own problems. Such a leadership tends to assume a 'fatherly' role, benevolent or otherwise, which makes the followers as well as the people who are to be mobilized extremely dependent on leadership. Instead of developing a viable organization of the poor, leadership is itself institutionalised.
- 3 If as a result of the actions initiated, the main demands are fulfilled the participants begin to lose interest and their mobilization becomes increasingly difficult. Like-wise, "a continued frustration in the fulfilment of demands may leave the participants embittered and resigned to the old situation, which

can be only counteracted by a renewed process of conscientisation".¹³

- 4 As the leaders and activists succeed in mobilizing the poor, the rich and the institutions supporting them feel increasingly threatened. Various legal and illegal measures are taken to suppress the poor and finish off the movement.

We have described these models at length not only to show their strengths and limitations but, more importantly, to examine whether and to what extent either of them could be adopted to facilitate the growth of viable organization of the poor. The main weakness of the harmony model lies in its inability to provide a rallying point for the poorer groups to organize themselves to promote and protect their interests. In contrast, the main weakness of the conflict model is that, though it provides or aims at providing such a rallying point, it pushes the poor to face the consequences of a long-drawn struggle without developing his capacity to hold himself. If this capacity is developed, it will not only strengthen his bargaining power but may also offer other alternatives to improve his position without putting himself into an explosive situation which, as is generally the case in the conflict model, hurts him more than his adversary.

The question is: How could one develop this capacity?

¹³ Ibid, p 30.

Annexure

Progress of Tribal Sub-Plan For Dharampur Taluka
Activities in Progress (As on December 31, 1977)

Sr No	Executing Agency	Activity	Details of Activity
1	Zilla Panchayat & Project Administrator	Service Centres	The following 10 villages have been selected for the purpose of developing service centres: Kaprada, Bilpudi, Sopi, Gundiya, Vadoli, Sutharpada, Pindwal, Balchondi, Jamgabhan and Ganveri.
2	Zilla Panchayat & Executive Engineer	Roads	a) The following approach roads to growth and market centres are being constructed Vardha-Mandwa-Rohiyal - 3.20 km } Girnara-Malghar - 2.00 km } Rs 3 Umarpada-Gadvi-Tukwada - 2.00 km } lakhs b) Missing links, culverts, earthen work on the following road is in progress: Dharampur-Bildha Rs 50,000 Umarpada-Wadi Rs 50,000 Dharampur-Pangarbari Rs 50,000 Dharampur-Nasik Rs 50,000 Awadha-Hanmatmal-Sildha Rs 150,000
3	Taluka Panchayat	School Bldgs.	a) Primary school buildings at the following villages were completed: Sildha, Khidki, Sadadvera, Maduri, Bildha, Asalkanti, Ambossi Bharwadi, Mamma Bhatta, Pandhav Khedi, Sonder, Murdal, Moti Palsan. b) Balwadi buildings at the following villages were completed: Managmal, Rajpuri Talat, Khattana, Panas, Moti Vahiyal, Sukhala, and Kangri. c) Sanctions for 13 more Balwadi buildings have been received and work is to be completed by the end of the financial year.
4	Dept of Agri & Taluka Panchayat	Kyari Land	190 acres of land was converted into kyari land. Taluka Panchayat granted subsidy of Rs 400 per acre to the cultivators undertaking such activity.

Sr No	Executing Agency	Activity	Details of Activity
5	Taluka Panchayat	Dairy	<p>a) Cooperative milk societies at the following villages have started functioning and the milk is collected by SUMUL: Virval, Bhansdara, Dharampur.</p> <p>b) Cooperative milk societies at the following villages have also been registered: Bilpudi, Baroliya, Motaponda and Nav Bhamba.</p> <p>c) Marginal and small farmers were sanctioned a subsidy of Rs 1200 per buffalo. Under SFDA & MFAL. Dena Bank, Dharampur, provided financial assistance.</p>
6	Project Administrator	Adult Education	Adult education classes in 19 villages have been organised with the help of local educated youth, who are paid a stipend of Rs 100 per month. Of these 19, 15 are managed by voluntary organisations and 4 by Taluka panchayat. Target is for 100 places.
7	-do-	Education for most backward tribe	At village Ozer special attempts have been made to enroll children of school going age belonging to Kolcha tribe. The parents of the child are awarded Rs 5 per week. Fifteen children have been enrolled so far.
8	Taluka Panchayat & Project Administrator	Cooperative Society	<p>a) Farmers' Cooperative Service Society at Kaprada and LAMP at Sukhala have started functioning.</p> <p>b) About 1000 qtls of paddy was purchased by District Marketing Federation against the target of 3000 qtls. Cooperative Bank, Valsad financed.</p>
9	Project Administrator	Poultry	Billimora Poultry Cooperative Society would be opening a centre at Dharampur for providing veterinary services, feed and purchase of product. Tribal Development Corporation would finance for 2 poultry units (one unit consisting of 50 birds) to the persons in the interior i.e. 15 kms away from Dharampur. The transport cost from place of units to Dharampur would be borne by TDC. About 100 units would be financed.

Sr No	Executing Agency	Activity	Details of Activity
10	Forest Department	Plantation and protection	<p>a) Agave plantation along 100 kms and Eucalyptus plantation in about 15 hectares were completed.</p> <p>b) Soil moisture conservation activity was completed in about 250 hectares.</p> <p>c) Work towards social forestry has also been initiated.</p> <p>d) Vanrakshak Dal utilising the services of local youth is proposed to be organised with the objectives of protection, conservation and plantation of forests. Each such volunteer would be paid an amount of Rs 6 per day while on duty. About 100 such volunteers would be selected.</p> <p>e) Department proposes to provide seeds to private individuals who agrees to raise nurseries and purchase the same at ten paise per seedling. A person thus raising about 2000 seedling would be able to earn Rs 200 per annum.</p>
11	Bank of Baroda	Opening of the Branch	<p>Village Sutharpada has been selected for opening of Bank of Baroda Branch. Forest Labour Cooperative Society would rent out its building.</p>

II

DESIGN OF ENQUIRY:
RESOURCE INVENTORY
STRUCTURES
CONSTRAINTS AND POTENTIALITIES

I. Physical Features and Infrastructure

Resource inventory should include a descriptive but analytical study of the physical features and potentials of the area/region under planning -- its topography, rainfall, roads and rivers, land use, soils and land capability classes, irrigated areas by type of works, village settlements, location of markets (hats) and other institutions such as schools, health centres, development offices etc. This will help in mapping out a programme of action for tapping the physical potentialities of the area.

Information should be supplemented by maps and charts. The bulk of data required is expected to be available with district development departments, including the census organisation. Field investigation to cover the gaps could be undertaken in the light of data collected from secondary sources.

Maps

- 1 Following maps could be obtained from district departments:
 - a) Toposheet (scale: 1" = 1 mile); preferably the one published after the reorganization of states otherwise the latest available.
 - b) Road and river systems including power transmission lines.
 - c) Sources, location and command of existing irrigation works.
 - d) Location of public institutions e.g. schools, block/taluka development offices, primary health centres, post offices, input supply centres, fair price/ration shops, power supply centres/sub-centres, ranger's office etc.

- e) Village settlements.
- f) Location and operational area of markets/weekly hats.
(This may have to be plotted in consultation with concerned departments).
- g) Soil survey maps, if available.
- h) Any other maps readily available.

Other Records

2 The following reports/publications which could be obtained from official sources will be found particularly useful:

- a) District Census Handbooks.
- b) District Gazetteer.
- c) Annual reports and plans of different district development departments, including PWD, Power and Electricity, TDO, BDO etc.
- d) Soil survey reports, if available; otherwise whatever data on soils are available with the Soil Conservation Officer.
- e) Geological survey reports revealing the mineral resources of the area/region.
- f) Any other reports describing the physical features and potentialities of the area under planning.

Data Collection

3 The following data from the above sources could be collected/compiled:

- a) Land use (for various years).
- b) Monthly rainfall and temperature data for 19___. (Classify this data by crop seasons or quarterly intervals — Jan-March, April-June etc — whichever fits in with the

crop calendar or practices locally followed. Prepare three, four and five yearly moving averages of the data thus classified).

- c) Number of irrigation works in use and their command by type of works; also number of works not in use but repairable by type of works. (Classify this data according to the natural regions in which the area is divided, each region could be further divided into upland and lowland categories).
- d) Hydrological data showing the irrigation potential of the rivers in the area/region.
- e) Capacity, supply and consumption of electric energy (19__ - __) in the district and the block. (Consumption data to be recorded by source or use viz agriculture, industry, domestic, street lighting etc).
- f) Details of roads (kutcha, pucca, all-weather etc) in the block/district, and the corresponding polymetric table of distances.
- g) Crop calendar locally followed showing the months when different crops (both major and minor) are sown, inter-cultured, and harvested.
- h) Soil survey data showing soil series, soil types, texture, pH value, reaction, capability classes etc. (If soil survey report is not available, obtain whatever data are available with the District Soil Conservation Officer).
- i) Any other relevant data e.g. seepage and evaporation rates, scale and incidence of soil erosion, recommended practices, including cropwise input dosages, details of major hills, forest trees suitable for cultivation etc.

Irrigation Survey

- 4 Prepare separate maps of each river showing its course or direction, water depth at different points during different seasons, location of major pockets where loss of water is caused by run-off and uneven topography, suitable points for construction of check dams/barrage, cultivable land along the river banks etc.
- 5 Potentiality for drawing water from these rivers through lift irrigation devices and/or other means (specify), estimates of acreage which could be brought under irrigation. (What is the possibility of damage to such devices during monsoon? What measures may be taken to minimize this possibility?).
- 6 Number and location of major pockets where irrigation tanks could be built. (Also indicate the estimated command of such works).
- 7 Number and location where check dams and bunds could be built. (Also indicate the estimated command of such works).
- 8 Details of groundwater resources and their use potentials.

An indicative tabular design to record or present the various types of data listed in this section is given in the enclosed set of 18 tables.

PHYSICAL FEATURES AND INFRASTRUCTURE

1 Area and Density of Population by Block/District

Block	Total area (sq km)	Total Population (000)	Density (per culti- vable land)	Rural area/Population as Percentage of Block Total	
				Area	Population

2 Land use and Per Capita Cultivable Land

Particulars	Area	Per cent
<u>Land use (acres/hectares)</u>		
— Forest		
— Cultivable waste		
— Area not available for cultivation		
— Cultivable land		
Total		
-- Total population		
-- Per capita cultivable land		

3 Physiography of the Region4 Soils (Description)

5 Soil Series and Their Characteristics by Physiographic Position

Physiographic Position	Soil Series	Depth, Texture & colour
1 Dissected Hilly Terrain 1.1 Hill plateaus and escarpment slopes: a) Piedmont plateaus (3-7% slope) b) Hill and escarpment slopes (15-50% slope)		
2 Foothill slope (5-10% slope)		
3 Piedmont slope (3-5% slope)		
4 Flood Plain (1-3% slope)		

6 Problems Limiting Soil Use and Recommended Practices by Soil Assocn

Soil Association	Problems	Recommended Practices

7 Chemical Analysis of Soils

Series of Association	Available Nutrient Nitrogen in form of Organic Carbon	Status in % P_2O_5	K_2O	P^H	EC

8a Temperature in Fahrenheit

	19__	19__	19__
<u>January</u>			
Minimum			
Maximum			
<u>April</u>			
Minimum			
Maximum			
<u>July</u>			
Minimum			
Maximum			
<u>October</u>			
Minimum			
Maximum			

8b Mean Temperature in Fahrenheit (Decade Average: 19__-19__)

Month	Minimum	Maximum
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

8c Rainfall and Water Resources (Description)

9 Annual Rainfall (Decade Average)

	Inch	Millimetro

10 Monthwise Distribution of Annual Rainfall

Month	Normal Rainfall	Average Annual Rainfall (Past Decade)	Percentage of Rainfall
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Annual			

11 Annual Rainfall & Variation from Decade Average (%)

Year	Annual Rainfall (Inch)	Variations from Decade Average (%)

12 Estimated Potentials of Rivers and Alternative Sites for Irrigation Projects (if any)

River Project Site	Type	Catchment area at size (sq mile)	Gross Storage capacity (Mc ft)	GCA (acres)	Power generation	Estimated costs

13 Groundwater Resources in the Block (Description)

14 Shops and trading Establishments (Weekly 'hats')

Village	Shops/'Hat' days

15 Communication (Roads)

i) Condition	
ii) Length (Miles)	
iii) Places connected within the block: their distances (in miles) from the starting point	
iv) Other roads connecting the highway in the block	

16 Details of other roads in the Block

Roads Running		Total Length (mile)	Of which	
From	To		Metalled length (mile)	Unmetalled length (mile)

17 Power Supply

- a) No of villages electrified
- b) Total consumption of electric energy

18 Consumption of Electric Energy in the Block (19__-19__)

Village/ Town	Total consumption (kWh)	Percentage distribution by uses			Existing Transformer with capacity
		Agriculture	Industry	Domestic	

II Education, Health and Housing

Education

- 1 Literacy rates according to census classification; number and proportion of school-going children (male and female), seasonal variations in school attendance, reasons for such variations, those who completed school education how and where are they generally placed?
- 2 Dropout rates by level or standard of education (primary, middle, secondary etc) and type of educational institution, reasons for dropout at different levels, educational aspirations of those out of school (14-25 years), their problems and needs.
- 3 Who are the parents who send their children to school? Why do they send them to school? What do they expect of them? What are their problems with regard to educating their children? What is their background -- social, economic and educational? Are they interested in getting themselves educated through some form or method?
- 4 The number of educational institutions presently functioning in the block by type and level (pre-primary, primary, middle, higher secondary, technical etc), the system or method of education followed by them.
- 5 Who are the people manning these institutions -- their background and academic attainments? What is their perception of the institutions and programmes they are manning? What do they expect of their students?
- 6 How about students and parents? What is their perception of the educational programmes and institutions?

(In short, a qualitative but factual account of the educational status of the people.)

Public Health

- 1 The rate and incidence of various kinds of diseases and ailments, wherever possible, by sex and broad age groups, seasons and peak periods of their occurrence, yearly or any other periodic trends, birth rates, death rates and infant mortality rates, trends in such rates (say, during the past decade).
- 2 Availability of drinking water during different seasons/months. Sources of drinking water supplies and their adequacy. What is the situation in summer? Where do the people go or how do they get drinking water during summer? How many villages have no source of drinking water of their own? In which parts of the taluka these villages are concentrated? (Identify). The maximum, average and minimum distances from village to source of drinking water supply.
- 3 Sanitary conditions inside and outside tribal huts; personal and public hygiene practices commonly followed.

Medical Care and Family Planning

- 1 Facilities available for medical care (traditional and modern, both public and private) in various parts of the block, number and regional distribution of private practitioners (quacks, qualified doctors etc) and primary health centres and sub-centres.
- 2 Appropriate outturn of patients treated by such practitioners and health centres during different months or by peak and slack seasons — approximate distribution of such patients by type of disease during peak and slack seasons, approximate proportion of cases cured.
- 3 Number of beds available for indoor patients, facilities for handling delivery cases, number of such cases handled by different categories of doctors/medical centres, approximate distribution of delivery cases by peak and slack periods.

4. Nature and type of medical services normally rendered by primary health centre/sub-centres, background of key personnel manning these centres. What medical facilities are generally available during monsoon when communication system is disturbed, where do the patients go for treatment during this period and for what type of ailments?
5. Family planning facilities and services normally rendered, the extension agency set up for this purpose, and such other details revealing the present status of family planning.

Nutrition

1. List of food items, (including alcohol, fat, oil, milk, sugar/gur, vegetables, fruits, mahua etc) generally consumed by different groups during different seasons or months, approximate per capita or per household daily intake of these items during different seasons/months, nutritional value of such intakes.
2. The physical appearance of children, men and women belonging to different groups, their general stamina, nutritional deficiencies and maladies or diseases arising out of such deficiencies.

(Apart from knowledgeable persons, consult local doctors, both official and private).

Housing

1. General housing conditions of different groups, physical description of these houses, (e.g. materials used, nature of construction, number of rooms, their area or space, ventilation, attached courtyard and cattleshed or barn, hygienic conditions within and around the house etc).

- 2 Approximate construction costs of different types of houses and such other details revealing the housing conditions and status.

Review of Programmes

A general review of the efforts made and the programmes undertaken in the foregoing fields will be useful. The programmes and activities to be reviewed are:

- 1 Education (from pre-primary to higher education through different institutional arrangements such as Ashramshala, primary-higher secondary schools, vocational training etc).
- 2 Health and medical care, including drinking water, nutrition and family planning.
- 3 Provision for house sites.
- 4 Tribal welfare through development of forest and/or protection of rights of tribals to use forest products.
- 5 Other social welfare programmes if any.

A factual description of these programmes in the block in comparison to the district may be attempted. The review should reveal among other things the following:

- 1 The stated objectives of each of these programmes and the activities undertaken during the past decade (or, more wherever necessary) to realise them. (The special features of these programmes should also be indicated).
- 2 Periodic (yearly, five-yearly etc) progress and achievements in terms of monetary and physical targets, problems and difficulties encountered during various stages of programme implementation, comparative performance of each of these programmes in block/district.

- 3 People's perception of each of these programmes. Also, their perception of the role of programme functionaries. How are these programmes linked with the needs of the people?
- 4 Functionaries' perception of programmes and people's need.
- 5 Overall, impressionistic assessment of the impact of each of these programmes in the block based on informal discussions with knowledgeable persons, both officials and non-officials.

General

Bibliography of all published and unpublished materials, including official reports, monographs etc dealing with the problems/programmes under study, if prepared, will facilitate further probing.

III Economic Status of the Block/Area

Introduction

The theme of this section may be woven around the following questions:

What are the resources of the people in the block? How are these resources used by them in the past and at present? What constraints are faced by them in the use of resources? What is the pattern of past and existing development programmes that may have bearing on the use of resources?

To examine these questions data and observations could be obtained from secondary sources, published literature and also from interviews with knowledgeable persons and agencies. Reference period for quantitative variables could be 5 or 10 years preceding the survey year. Exceptions to this should be stated along with the variables concerned. The investigation should first seek information from secondary sources (such as District Census Handbook, Records at the District and Block Development Offices etc) and then from primary sources (such as knowledgeable persons, mimeographed and other studies). At some stage of work particularly on questions for primary investigation, some selected individuals from different parts of the block may be interviewed. In the process of this work selected bibliography may also be prepared.

The outline should focus on the resources and their use pattern. In addition, it should cover some questions on migration and rural crafts and industries pursued by the people in the area. Wherever possible distinct characteristics by which various parts of the block differ in

the resources and their use pattern may also be highlighted.

Aggregate Economy

Secondary Sources

- 1 Location and area including the distinct geographical and locational characteristics of various parts of the block.
- 2 Rainfall and temperature in different months of years since 19__ to 19__.
- 3 Land use pattern in various years since 19__ to 19__. This should also include information on net cultivable land and net irrigable land.
- 4 Population by sex, and its growth rate according to 1961 and 1971 censuses.
- 5 Occupational pattern according to 1961 and 1971 censuses.

Primary/Secondary Sources

Migration: Is migration a common source of earning livelihood in the block? Has its importance increased in recent times? Why? Who are the people (landless, small farmers, Harijans, tribals etc) who migrate? Where do they migrate — outside the block and/or within the block? If within the block, from which areas do they migrate and where? What are the reasons for migration? In which months do they migrate? What are the activities migrants engage in?

Crop-FarmingSecondary Sources

- 1 Distribution of cultivators, their land holding, number of fragments, and ownership status in the year for which information is available. (Also include number of landless labourers.)
- 2 Bullock labour, 1966, 1971 and 1976 censuses.
- 3 Farm implements by major types, 1966, 1971, and 1976 censuses.
- 4 Area under each crop in each season in various year since 19__ to 19__. Also include net cultivable land and net irrigable land, 19__ to 19__.
- 5 Area under mixed cropping in various years. Names of crops grown in mix.
- 6 Area under double cropping in various years. Also find out method of calculating double cropping.
- 7 Production of each crop in each year since 19 __ to 19__.
- 8 Total use of different fertilizers, insecticides and pesticides in each year since 19__ to 19__.
- 9 Total use of improved seeds by types of each crop in each year since 19__ to 19__.
- 10 Total availability of institutional credit (i.e. sum of maximum credit limit sanctioned for each credit/service cooperative) and its disbursement in various years since 19__ to 19__.
- 11 Prices of each crop at harvest times in each year since 19__ to 19__.
- 12 Procurement prices of each crop whose produce is procured, if at all, by government in the form of levy etc in various years since 19__ to 19__.
- 13 Details of crop-farm development programmes for the latest year for which information is available. (See Table 1).

Table 1

Type of Programme	No of villages covered	Area covered and employment generated for items (a) to (e)	Financial costs and rate of subsidy given	Specific reasons for introduction	No of villages which continued the program after its expiry	If some villages did not continue, why? (got as much detail as possible)	Future plan with reference to items in columns 2,3, 4, 6 and 7.
1	2	3	4	5	6	7	8
a) Bundling							
b) Soil conservation							
c) Contour ploughing							
d) Ridges & Furrows							
e) Preparing Kyari land: <ul style="list-style-type: none"> i) By manual labour ii) By Bulldozer 							
f) Distribution of improved and/or HYV seeds of various crops: <ul style="list-style-type: none"> i) Paddy ii) Jowar iii) Wheat iv) v) vi) 							
g) Distribution of Fertilizers by types: <ul style="list-style-type: none"> i) ii) iii) iv) 							

Table 1 (contd)

1	2	3	4	5	6	7	8
h) Distribution of Pesticides and Insecticides							
i)							
ii)							
iii)							
iv)							
i) Irrigation							
i) Wells							
ii) Oil engine							
iii) Elec. motor							
iv) Pipe lines							
v) Traditional lifts							
vi) Tanks							
vii) Others (specify)							
j) Demonstration plots for							
i) Kyari Farming							
ii) HVV seeds							
iii) Fertilizers							
iv) Insecticides							
v) Pesticides							
vi) New crop							
vii) Others (specify)							

- 14 During the scarcity years which resources like tanks, roads etc were created in the block? Are all these resources in use at present? If no, why? (Enquire separately about the reasons for each type of resource created).
- 15 Obtain the details about Land Reforms with specific reference to (a) Abolition of Intermediaries, (b) Tenancy, and (c) Ceiling on holding.

Primary Sources

- 1 Is there increase in the number of landless people in recent years? If yes, why? and in which parts of the block/area?
- 2 Is there increase in the average size of holding in various parts of the block? If yes, why? and in which parts?
- 3 What crops are suitable to each soil type?
- 4 Do farmers keep (cultivable) land fallow in kharif seasons? If yes, in which parts? and why?
- 5 What are the crop-rotations usually followed? What are the reasons behind them? Is there a marked change in this practice now compared to that in the past? If yes, indicate the nature of change and reasons for change.
- 6 What are the reasons for mixed cropping? Is there any change in this practice now compared to that in the past? If yes, indicate the nature of change and reasons for change.
- 7 Was the crop-pattern different in the past? Which were the other crops grown? Why are they not grown now? What factors led to the introduction of new crops?
- 8 What crops compete with each other in a given season? Why?

- 9 Describe the operations carried out in various types of soils for various crops in each month from July to June.
- 10 Indicate the use of labour on an acre of land of each major crop in various months and for various operations.
- 11 What are the marketing facilities for paddy, wheat, jowar, ragli, sugarcane and any other major crop in the block? (This may include existence of regulated markets and their location, private traders in 'hats' and in the local villages etc.)
- 12 What are the credit facilities available to the farmers?

Orchard-Farming

Secondary & Primary Sources

- 1 Acreage under and number of trees of different types (mango, chiku, etc) in each year since 19__ to 19__. If this information is already covered above, please do not repeat.
- 2 Production of main fruits in each year since 19__ to 19__.
- 3 Describe the calendar of work for a typical orchard in its initial and later stages of growth.
- 4 Describe the marketing facilities for major fruits.
- 5 What are the areas (i.e. number and location of villages) where potentiality for developing orchards exists?
- 6 Which villages are assisted in this regard by the block and/or Development Office?

Dairy FarmingSecondary Sources

- 1 Number of milch animals by types and breeds, 1966, 1971 and 1976 censuses.
- 2 Birth rate & death rate of milch animals, 1966, 1971, and 1976 censuses.
- 3 Area under grass and other fodder crops (specify) in each year since 19__ to 19__. (If this information is already covered above, please do not repeat).
- 4 Details of Development Programmes for the latest year for which information is available. (See Table 2).

Table 2

Types of Programme	No of vil- lages cov- ered	No of farm- ers cov- ered	Fin. cost & rate of sub- sidy	Speci- fic re- asons for in- ter- med- iate	No & name of villa- ges which contd the activity after the expiry of the pro- grammes	Specific reasons why other vil- lages did not continue	Future plans de- tails w.r. t. 2,4,6, and 7
1	2	3	4	5	6	7	8
a) Better Breed Milch animal							
b) Better Breed Bull							
c) Distribution of Tradnl. Breed Milch Animal							
d) Distribution of fodder and feed							
i) Green							
ii) Dry							
iii) Feeds (specify)							
e) Others (specify)							

Primary Sources

- 1 Is dairy-farming pursued by most farmers? Why is it pursued as subsistence-oriented or market-oriented activity? What constraints are faced by farmers in this activity?
- 2 What are the water facilities in the block? Please describe them with reference to their quality, adequacy, in different months of a year and their source.
- 3 Is the grass produced in the block sold? If yes, why and where? Does this practice cause shortage of fodder for the animals in the block? If yes, why? Is this practice followed? How the problem of shortage tackled if at all? What are the possible solutions? What are the marketing facilities for dairy-products?

Poultry-Farming

Secondary Sources

- 1 No of poultry birds by types, 1966, 1971 and 1976 censuses.
- 2 Birth rate, death rate of each type of bird, 1966, 1971 and 1976 censuses.
- 3 Are there commercial units of poultry farming in the block? If yes, obtain details such as their number, location, and their source of financial and technical support for latest year for which information is available.
- 4 Details of development programmes for the latest year: (See Table 3).

74 Table 3

Type of Programme	No of villages covered	No of farmers covered	Financial cost and rate of subsidy	Specific reason for introducing the programme	No & name of villages which continued the activity after the expiry of the programme	Specific reasons why other villages did not continue	Future plans with reference to colms 2, 4, 6 and 7
1	2	3	4	5	6	7	8

Primary Sources

- 1 Area poultry—birds kept by most people including landless labourers in the block? Why? Is this activity pursued mainly as subsistence-oriented or market-oriented activity? What constraints are faced in this activity?
- 2 What are the marketing facilities for eggs, chicks, and manure?

Forests

Secondary and/or Primary Sources

- 1 Classification of forests in different parts of the block/region under Indian Forest Act.
- 2 If not classified, why? and in what specific terms it has been advantageous and disadvantageous to the area concerned? (This latter question requires probing into the objectives behind classification).
- 3 Details of forest resources by type of forest trees and their products since 19__ to 19__. (See Tables 4a & 4b).
- 4 Are the rights to cultivate forest land given? If yes, why? If no, why? How the royalty for rights is fixed? How are people selected for this purpose?
- 5 Number of forest labourers' cooperatives, their functions, area and villages under jurisdiction. How does a typical forest coop function in terms of its decisions to cut the forest, employing resources including labour needed to cut the forest, arrangements for extracting and marketing forest products (main and subsidiary products), the payment of costs and receipt of revenue.

Table 4 (a)

Type of trees	Name of products	Acreage*	Production Qty (specify units for each)	Value	Revenue earned by dept	Months in which employment generated	(for the latest year)			
							Details of use of each product	Private or Govt Owned	Managed	
1	2	3	4	5	6	7	8	9	10	11
1	Production of trees									

1 Production of trees

Timber
Firewood and Charcoal
Khair
Samboos
Grass
Timru leaves
Mahuda flowers
Others (specify)

*Acreage must add upto about 174, 901

Table 4(b)

Type of product	Area covered	Villages covered	Financial cost and rate of subsidy	Specific reason for introduction	Year in which benefits would begin to accrue	By products that may accrue	Amount of employment that generated
<u>1 Plantation of Trees</u>							
a) Teak							
b) Khair							
c) Cashewnuts							
d) Bamboo							
e) Eucalyptus							
f)							
<u>2 Others (specify)</u>							

Rural Crafts and IndustriesSecondary and/or Primary Sources

- 1 What are the different rural crafts and industries pursued at present in the block? Are these pursued as full-time occupations? If not, what is the extent of dependence on this activity?
- 2 Were there other crafts and rural industries in the past? Why are they not pursued at present? Is there any scope to revive them? What measures need to be taken to revive them?
- 3 What are the raw materials used and what products are made by the existing units? Where from raw materials are obtained? Where the products are marketed?
- 4 Details of Development Programmes for the latest year for which information is available: (See Table 5)

Table 5

Type of programme (including the name of craft, rural industry)	No of vil- lages covered	Financial costs and rate of subsidy	Specific reason for introduction	No of vil- lages which continued the programme after its expiry	If some vil- lages did not continue, why?	Future plans w. r.t. cols 2, 3 & 6
1	2	3	4	5	6	7

IV Social Structure1 Structure

Give a brief historical background of the social groups (castes, religious, ethnic groups etc). This may include the following:

- a) A kaleidoscopic account of caste/ethnic origins.
 - b) Extent of fusion and fission of social groups in the area.
 - c) Points of culture contacts - institutions and practices which resulted from culture contacts.
 - d) Map out the distribution of specific cultures (institutions and practices) among the social groups.
 - e) Assimilation of social groups into major religious groups.
- 2 If there are tribals in the area, include significant anthropometric information on the tribes such as:
- a) Tribal groupings and ethnic homogeneity (both structurally and functionally).
 - b) Hierarchy of tribal groups based on ethnic considerations.
 - c) Tribal demography over the years: trends in population growth.
 - d) Age, sex and religion structure of the tribal groups.

3 The profile note should include some information on the pattern of life such as:

- a) Kinship and clan groupings with corresponding territorial limits. This will include totemic ties, territorial contiguity or mythical origin of the clans determining inter and intra-group affiliation as a function of common residence within a territorial limit. Also, the nature of ties should be assessed: whether totemic ties or political ties or feudal ties.
- b) Inter-group relations, both formal and informal.
- c) Dwelling and settlement patterns (spatial distribution) of the social groups (both within a village and without) corresponding to clan hierarchies (if any).
- d) Family structure: whether nuclear, joint or extended; whether patrilineal or matrilineal; authority and decision making power in the family; whether discrimination according to sex and age; laws of inheritance.
- e) Marriage types: whether intra or inter-clan; intra or inter-villages; endogamous or exogamous; selection of spouses; marriage season; marriage expenses, monogamy or polygamy; child marriages; ceremonies; remarriage.
- f) Births and deaths: ceremonies and expenses.
- g) Religious institutions and organisations; faiths; worship patterns; feasts and festivals; sacrifice; family deity; religious head (priests, sadhus, gurus, and their remunerations).

Institutions

- 1 Fairs, festivals and 'hats': Seasons when held, frequencies, locations, average gatherings, etc.
- 2 Leadership: Hereditary or acquired; function and roles; leadership qualities and characteristics required; selection procedures; authoritarian or democratic.
- 3 Village organisations: Political, economic, religious and social organisations (e.g. panchayat, cooperative, unions, yatra groups, etc); membership patterns; frequency of meetings; kinds of services provided, representativeness; etc.

Most of the information could be obtained from available literature. However, available information from existing literature may not be sufficient. A few visits to different locations, a few case studies and interviews with knowledgeable villagers may have to be made to fill in the gaps.

V Development Administration, Agencies and InstitutionsDevelopmental organizations

1 Assessment of the role played by block/district development administrations:

- a) Historical review of the development administration in the block/taluka/tehsil.
- b) Major programmes/activities of development administration over the years (description and wherever possible analysis in terms of monetary and physical targets and achievements).
- c) Reasons for any shift in the activities.
- d) Background of the key personnel manning the development departments/organizations (age, education, experience, local/non-local, general orientation).

2 Description and analysis of the structure of developmental organizations and the processes and procedures followed by them:

- a) Structure of development administration - personnel, hierarchy, functional divisions and responsibility, control system.
- b) Organizations at higher levels from which the district/block level administration draws ideas and resources, the relationship between the two, the nature of authority and the manner in which it is exercised, feedback and correctional devices.
- c) Procedures and processes followed in executing major activities. (This can be illustrated by two or three different types of activities e.g. resource supply activity - fertilizer supply; extension activity - propagation of new seeds; control activity - supervision over cooperative loans).

d) Formal and informal relationship of development administration with non-governmental agencies and institutions.

3 Apart from the developmental activities funnelled through block development organization, a number of other governmental agencies function more or less independently of the former at the block level. Among these are:

- * Public Works Department
- * Irrigation Department (other than minor irrigation)
- * Electricity Board
- * Forest Department
- * Education Department (higher education)
- * Health Department (major health projects)
- * Social Welfare Department
- * Revenue Department (taccavi loan operation)

The following aspects need to be studied about each of these departments:

- a) The main activities it pursued in the past decade or so. (Description and wherever possible analysis in terms of monetary and physical targets and achievements).
- b) Reasons for any shift in the activities.
- c) Field level organizations of each department.
- d) Background of the key personnel.
- e) Formal and informal relationship of the department with the block administration.

- 4 Besides official developmental organizations, there may be some social and political (e.g. voluntary agencies and trade unions) organizations in the area participating in the development process. It would be desirable to prepare profile/case studies of important organizations of this type.

Protective measures

- 1 Various measures have been taken to safeguard the legitimate rights of scheduled castes, economically poor or backward classes etc. Measures have also been taken to protect them from exploitation by vested interests. These measures are mainly in the fields of protection against alienation of land and usurious moneylenders. The questions which need to be asked are:
 - a) Which are the agencies charged with these functions?
 - b) How effectively they are functioning?
 - c) If their functioning is not effective, does the fault lie with their organizations or somewhere else?
- 2 The weaker sections, especially landless labourers and tenant farmers, are sought to be protected and helped by the state in a variety of ways such as:
 - a) Minimum Wages Act.
 - b) Protection of tenants and land to tiller legislation.
 - c) Provision of house sites.
 - d) Imposition of ceiling and redistribution of land.

It is pertinent to enquire as to:

- a) Which are the agencies set up to implement these measures?
- b) What has been their record?

- c) If their record is not satisfactory, is it because of organizational or some other defects?

Land records

- 1 Give a brief description of the nature of land tenure in the area.
- 2 Whether cadastral survey and settlement have been completed. If yes, when? If not, why?
- 3 What is the position of land records in the area? Do the records show the names of all persons having interest in land? Are they upto date? What steps are necessary to update the records?
- 4 Has any surplus land been acquired under the ceilings legislation? If yes, how much? Is there some more surplus land to be acquired? If yes, why has it not been acquired? How much of the acquired land has been distributed and to whom?

Land restoration

- 1 Is there a law prohibiting land alienation? If so, obtain a copy of it (including rules, executive instructions and upto date amendments).
- 2 Is adequate legal protection available for the rural poor in regard to restoration of land from moneylenders, petty traders or other non-tribals?
- 3 Obtain the following information (for the last five years):

(Year)

- a) Number of cases brought forward at the beginning of the year.
 - b) Amount involved under item (a).
 - c) Number of cases disposed of during the year.
 - d) Amount involved under item (c).
 - e) Number of cases pending at the end of the year.
 - f) Amount involved under item (e).
- 4 Will long-term loans at cheap rates for purchase of ownership rights help in solving the problem of land restoration to the poor?
 - 5 Which agency is best suited to provide such long-term loans and why?

Debt relief legislation

- 1 Is the area covered by any debt relief legislation? Obtain copies of the relevant legislation.
- 2 What are the provisions for regulating debts?
- 3 What is the maximum rate of interest chargeable under legislation? Can moneylender collect interest in excess of the principal? If so, how much?
- 4 What are the penal provisions?
- 5 Who is the competent authority to enforce the legislation?

6 Obtain the following information (for last five years):

(Year)

- a) Number of cases brought forward at the beginning of the year.
 - b) Amount involved under item (a).
 - c) Number of cases disposed of during the year.
 - d) Amount involved under item (c).
 - e) Number of pending cases at the end of the year.
 - f) Amount involved under item (e).
- 7 It would be useful to consult knowledgeable persons - officials, practitioners, and villagers -- and obtain their views and suggestions on the following:
- a) Whether it is possible to scale down debts.
 - b) Approximate estimate of the amount required for scaling down debts.
 - c) The steps needed to be taken to strengthen the credit structure: cooperatives, commercial banks, and other institutions. (Make a brief but qualitative study of these institutions, their working and operational achievements/problems/limitations, and effectiveness in terms of providing production and consumption credit to villagers, particularly the poor).
- 8 What are the methods adopted by moneylenders, commission agents etc to keep the poor under control?

Annexure

SOURCES OF INFORMATION

Physical Features and Infrastructure

<u>P a r t i c u l a r s</u>	<u>S o u r c e s</u>
1 Area and density of population	District Census Handbook (DCH)
2 Land use and per capita cultivable land	-do-
3 Physiography of the region	Soil Survey Officer, Dept of Agri
4 Soil (description)	-do-
5 Soil series and their characteristics by Physiographic position	-do-
6 Problems limiting soil use and recommended practices by soil association	-do-
7 Chemical analysis of soils	-do-
8 Rainfall, climate and temperature	(i) DCH, (ii) Gazetteer, (iii) Agriculture Department
9 Annual rainfall	-do-
10 Monthwise distribution of rainfall	-do-
11 Annual rainfall and variation from decade average (%)	-do-
12 Estimated potentials of rivers and alternative sites for irrigation projects	Superintending Engineer/Water Resources Investigation Division/Irrigation Department
13 Groundwater resources in the block	Director, Groundwater Resources Investigation.
14 Shops and trading Establishments	DCH
15 Communication (roads)	PWD/Zilla Panchayat/Panchayat Samiti
16 Details of other roads in the block	-do-
17 Power Supply	Chief Engineer, District Ele Board
18 Consumption of ele energy by uses	-do-

Social Structure

1 Percentage distribution of population by caste group	DCH/Research studies or surveys if available
2 Settlement patterns	Books
3 Household, Family and Neighbourhood	-do-
4 Activity pattern	-do-
5 Child bearing and socialization	-do-

Particulars	Sources
6 Social Hierarchy	Books
7 Leadership	-do-
8 Constraints and Directions for development	-do-

Economic Structure

1 Average annual rainfall	(See 8-11 under Infrastructure)
2 Soil type	Soil Survey Officer
3 Geographical area	District Census
4 Distribution of workers by occupational categories, comparison between towns	DCH
5 Climatic condition in the block and comparison with district	-do-
6 Structural holding in the area	DCH
7 Cropping pattern	Season and Crop Reports
8 Per acre yields of selected crops	-do-
9 Agricultural Implements and Equipment in the area	Livestock Census Reports
10 Crop calendar of selected crops	Season and Crop Reports
11 Use of modern inputs in the area	Extension Officers for Agri
12 Forest of the region	Working Plan Division of Forests
13 Distribution of Sound and unsound sample species by girth classes	-do-

Health and Education

1 Daily per capita consumption (gms)	Diet Atlas of India, National Institute of Nutrition, Hyderabad, 1971
2 Distribution of Malaria cases by age	Malariya Unit Office
3 Distribution of patients treated at Primary Health Centres by type of disease	Primary Health Centres
4 Birth and death rate per thousand population	-do-
5 Literate and educated as percentage of population	District Census Handbook

Particulars	Sources
6 Proportion of literate rural population by age and sex	District Census Handbook
7 Primary education: Number of schools, students and teachers	Education Department
8 Dropouts at successive stages of primary education) Inspector of Schools/Education Department/School Records
9 Dropouts at successive stages of secondary education	

Development Administration

1 Classification of village level functionaries by age, place of origin and educational qualifications	Block records
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