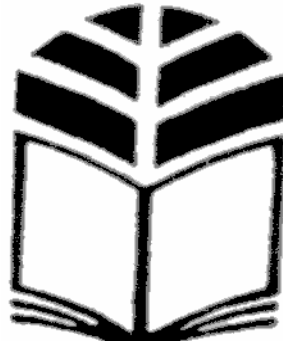


BASE LINE SURVEY OF DPIP DISTRICTS

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Preface

The Government of Rajasthan has collaborated with the World Bank in designing and implementing the District Poverty Initiative Project (DPIP) in seven districts in the state. These are Baran, Churu, Dausa, Dholpur, Jhalawar, Rajsamand and Tonk. A Base Line Survey of 800 households in each of the 7 districts was carried out to establish benchmarks for outcome indicators of the DPIP. The survey was carried out during the period February - June 2001. The Base Line Survey covers both economic and social aspects of livelihoods of the poor and the non-poor.

The Base Line Survey Indicators include those that cover area poverty given the natural resource endowment and the physical infrastructure. Area poverty includes aspects such as Land Use Pattern, Status of Water Bodies, Status of Agriculture including Livestock. Poverty of infrastructure is reflected in the status of economic infrastructure such as transport, electricity and markets, and social infrastructure such as education and health, agriculture extension, veterinary services and banking. The Base Line Survey also collects information on local institutions such as the Panchayati Raj, Caste Panchayats, untouchability, *jajmani system* and religious institutions, Government interventions, violence against women and the Government and Civil social capital.

Indicators based on the poor and non-poor sample households include those with respect to the resource base, the demographic pattern, occupational characteristics, disparities in asset ownership, productivity of land and livestock, skills, capacities to access services and organize, gender based differences in access to services, nature and functioning of informal networks and associational social capital.

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The Base Line Survey Team comprised of a team of 30 members, namely, Dr. N.R. Sharma, Tanwar Singh Rathore, Gopal Singh, Bhagirath Singh, Aidan Singh, Atma Ram Koli, Suresh Kumar Rawat, Anoop Kumar Sharma, Devendra Singh, Ramesh Asliwal, Ram Singh, Ram Kumar Chhaba, Surendra Jain, Om Prakash Chhaba, Karni Singh Rathore, Om Prakash Khatik, Mahendra Chaudhary, Ramesh Bairwa, Rajesh Mohta, Laxmi Narayan Bunkar, Ramesh Sharma, Bhagwati Singh, Jwala Pratak Singh, Naveen Kumar Gupta, Manju Balana, Neeta Sharma, Dr. Neeta Kumari, Rekha Sharma, Rashmi Verma, Sadhana Sikarwar, Members of the Base Line Survey team put in hard work and did the field work especially in the months of May and June. Mr. Rajesh Pareek ably supervised data entry and assisted in further analysis of data. We thank them all. We also thank the respondents who made themselves available to fill in the questionnaire.

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Chapter I: Introduction

Poverty management in Rajasthan has been on the agenda of public policy for several decades. The most preferred strategy since the 1970s has been the targeted approach, wherein the state identified the poor and designed programmes for them but more with an attitude of dispensing patronage rather than mainstreaming them in the economic activity. These programmes did not seek their participation in planning and implementation that would be of direct benefit to them. The targeted approach first manifested in a programme called the 'Antyodaya' which later became the basis for an all India Programme called the Integrated Rural Development Programme (IRDP), which sought to augment the asset base of the poor. The IRDP did help some poor near the poverty line but for the remaining it was by and large of little consequence. Similarly, employment generation programmes were also designed for the poor. Wage employment programmes helped create some community assets but the poor had no say on what infrastructure would benefit them the most. Social services such as education and health were made available but there were little efforts to improve the access of the poor to these services. In short, there were very few efforts, if any, in building the interface between the delivery system and the poor. Yet, some of the programmes in the 1990s such as the Watershed Development Programme and the Lok Jumbish in the field of education did set up Village Committees in an attempt to involve local people in management of watershed / schools. Similarly, programmes such as the Women's Development Programme sought to conscientise women on their roles and rights in the public sphere. However, both these programmes in recent years have received a set-back as the state again sought to take control of their delivery systems.

This brief introduction to poverty management in the state has been mentioned here to bring out the major difference in the poverty management strategy adopted by the District Poverty Initiative Project (DPIP), namely, mobilising the recipients, who are mainly the poor, not only in sub project activities but also in *democratic and developmental processes*. Mobilisation of recipients, therefore, forms the core of the Base Line Survey and shall be elaborated below after a brief review of the notable features of the DPIP.

The District Poverty Initiative Programme

The DPIP recognises that poverty has multidimensional characteristics, not confined to income poverty alone but extending into the social environment in which the poor strive for an existence. The stated development objective of the DPIP is “to improve economic opportunities, living standards and social status of the poor”.

The District Poverty Initiatives Project (DPIP) directs its interventions towards:

- Mobilising and empowering the poor and help them to develop strong grassroots organisations that facilitate access to and participation in *democratic* and *development* processes;
- Improve the abilities of non-government, government and *panchayati raj* institutions to hear, reach and serve poor clients, i.e. to function in a more *inclusive* and participatory manner;
- Expand the *involvement* of the poor in economic activities by improving their capacities, skills, *access to social and economic infrastructure and services and employment opportunities*;
- Supporting small scale sub-projects that are priority chosen, planned and implemented by the poor;

The above four interventions set the design of the DPIP. At a conceptual level, these interventions are designed to nurture and augment the existing social capital of a ‘group’. Social capital is defined to include features of both the government and civil society that facilitate collective action for mutual benefit of a group. The DPIP proposes to enhance both “government social capital” and “civil social capital”. The former refers to governmental institutions that influence people’s ability to cooperate for mutual benefit. The DPIP strategy is to make the governmental institutions and the Panchayati Raj Institutions (PRIs) responsive to the poor, facilitating a socially inclusive process.

“Civil social capital” encompasses common values, norms, informal networks, and associational memberships affecting the ability of individuals to work together to achieve common goals.

The DPIP strategy of enhancing civil social capital is expected to lead to an increased involvement of the poor in accessing existing social services such as health and education,

as well as economic infrastructure including public goods. Besides, it aims at improving the organisational capacities, skills and employment opportunities of the poor.

Finally, the DPIP strategy supports sub-project activities to be undertaken by Common Interest Groups (CIGs) and Village Development Associations (VDAs) through mobilisation of the poor and facilitated by enhancement of both “government social capital” and “civil social capital”.

This approach of moving through enhancing social capital will help, on the one hand, to address the problem of inequalities in social order and on the other, to overcome problems of collective action. When social norms and generalised trusts are so strengthened, the resultant outcome will be to reduce uncertainty and transaction costs and to enhance efficiency of exchange and also investment in ideas and in human capital.

An important part of the DPIP strategy is the formation of Common Interest Groups (CIGs). The formation of CIGs of the poor is an attempt to forge associational social capital between its members. If the poor in a village do not belong to common informal networks building associational social capital may make community based interventions problematic. Besides, there are important gender realities that need to be understood while building associational social capital.

The Baseline Survey

This Base - line survey establishes benchmarks for the outcome indicators of the DPIP in the light of the background discussed above. The project has two sets of indicators.

- I. Indicators included in the first set are Resource Base of the area that delineates the area poverty. These cover primarily the demographic pattern, occupational characteristics of the population, Land use pattern, Water bodies, Status of agriculture including livestock, Economic infrastructure such as transport, electricity and markets, Social infrastructure of education and health, agriculture extension, veterinary and bank credit, local institutions such as the Panchayati Raj, Caste Panchayats, untouchability, *jajmani system* and religious institutions, Government interventions, violence against women and the Government and Civil social capital.

- II. Indicators included in the second set are differentials in the poor and non-poor sample households with respect to the attributes mentioned in the Resource Base, disparities in asset ownership, productivity of land and livestock, skills, capacities to access services and organise, gender based differences in access to services, nature and functioning of informal networks and associational social capital.

Methodology

The list of indicators in the base-line survey has both quantitative and qualitative dimensions. Quantitative variables have been surveyed through a schedule. The qualitative indicators were studied by a combination of participatory methods, informant interviews and Focus Group Discussions.

Sampling design

1. There are seven project districts, namely, Baran, Churu, Dausa, Dholpur, Jhalawar, Rajasamand, and Tonk. All these districts have been covered.
2. Two poorest blocks in each district where the project was to be implemented were selected for the Base Line Survey. Each of these two blocks has been classified into five clusters of villages. They are prioritised on the basis of poverty indicators. Before choosing the villages, we choose two clusters from the two blocks. These are the first cluster of first and second poorest blocks. The villages located in these two clusters and the remaining block/ blocks to be taken up in the last year of the project comprise of our universe of villages. Six villages from each cluster where project activities are undertaken in the first year and 4 sample villages from the remaining two blocks (or 8 villages in case the remaining block) in the last year of the project have been selected. For the last year of the project the villages from each block(s) were divided into two strata and 2/4 villages were selected at random from each strata. A total of 4/8 villages, which shall act as control villages were selected from the remaining block/ blocks in the final year. In this manner a total of 20 villages were selected in the sample in each district.
3. In each village a PRA exercise and Focus group discussion was undertaken to identify the households not covered in the BPL list but are as poor as the BPL households.

Special care was taken to include women headed households and handicapped headed households. From the total of these BPL/poor households 25 households were selected at random. To give due representation to the women-headed households and the handicapped, sampling with replacement was undertaken, so as to include atleast 2 women-headed households and 1 handicapped household in each village (provided such households exist in the universe). In addition 15 non-poor households were selected at random from the village. The total number of households thus selected were 800 in each district.

Two schedules, namely, the Village schedule and the Household Schedule were developed.

Presentation of the results of the Base Line Survey

Chapter II outlines and analyses the Indicators developed from the results of the Resource Base of the sample villages and the survey of household characteristics. The District wise detailed Tables are appended.

Chapter II: An analysis of Base Line Indicators

Introduction

Poverty has multidimensional characteristics encompassing material deprivation, low achievements in education and health, vulnerability, exposure to risk, voicelessness and powerlessness. The Base Line Survey (BLS) attempts to capture all these aspects of poverty. In brief, an attempt is made to estimate people's assets, the returns on these assets and volatility of these returns. At the same time an attempt has been made to understand the institutions and organisations that determine the access to these assets and any explicit or implicit discrimination on the basis of gender or caste. In general, five kinds of assets have been identified: (1) Natural Resource Endowment; (2) Physical infrastructure and services; (3) Financial assets; (4) Human capital and (5) Social capital. This Chapter deals with the Base Line Status of each, in the project and control blocks and concludes with a section on Vulnerability and Livelihoods including patterns of employment, income and consumption.

Natural resource endowment

Natural resources are either shared as common property resources or private property. Natural assets in the common property resource category are the forest and pasturelands, surface water bodies and groundwater. The regeneration of the natural resources, access to and returns from these assets are generally determined in customary norms or a government enforced legal structure that determine their use. Property rights determine private ownership of natural assets such as land and livestock. These are well defined in most parts of Rajasthan. The BLS only looked at the distribution of these assets and their returns, given the property rights regime. The BLS has also tried to underline the relationship between the "common property" natural assets and the "private property" natural assets. In most regions of the state the endowment of "common property resources" (forest products, grasses etc.), determines the numbers and yield from livestock. Similarly, returns from privately owned land are determined by surface water bodies and access to groundwater.

Physical infrastructure and services

Physical infrastructures such as roads provide access to markets, particularly, the wage labour market. Electricity provides easier access to irrigation and develops the potential for non-farm sector. Social sector infrastructure such as education and health, increase opportunities for livelihoods and augment human capital. Availability of services such as Agriculture Extension and Veterinary, help increase productivity and decrease volatility in production.

Financial assets

Access to credit institutions, both local and distant, help ensure a less volatile and sustainable livelihood as well as possibilities of investment in an income generating activity. In some villages, in addition to the formal institutions, Self Help Groups (SHGs) have also emerged who form a part of the financial asset of villages.

Human capital

Educational status and good health helps in building capacity for basic labour, skills and stamina. On the other hand, out of school children means that the human poverty is likely to continue for a long period of time.

Social capital

Voicelessness and powerlessness are the institutional basis of poverty. Networks of mutual help and reciprocal obligations help build a strong civil society that can help negotiate returns from all sources of capital mentioned above and hence have an impact on poverty. In this survey, we have also attempted to expand the notion of social capital to understanding of gender relations at the household level and how they affect formation of social capital at the community level.

Vulnerability of livelihoods: Employment, Income and consumption patterns

Assets owned by the households, unemployment status and fluctuations in their income and consumption are important indicators of vulnerability of livelihood leading to poverty.

I. Natural Resource Endowment

A. Common Property Resources

In this section, we shall first discuss the land use pattern and their management, surface water bodies and groundwater.

Land Use

The village level data on land use pattern is pooled for the Project and Control Villages in Table 1.

Forests, pasture lands, barren and uncultivable lands, wastelands

Both Project Villages and Control Villages are situated in the undulating mountainous terrain, with only 16 per cent land in both category of Villages is sown. The remaining land is variously classified as not available for cultivation or fallow. The area under forest cover is negligible given the mountainous terrain. While in the Project Villages forest area is negligible, in Control Villages it is 7 per cent of the geographical area. In 25 per cent of the Control Villages the forest area is protected. In 25 per cent of both Control and Project Villages are pastureland protected.

Unprotected pasturelands are continuously subject to degradation that leads to environmental degradation. Presently these lands are available for open grazing for livestock.

Management of forest and pasture lands

The access to forests and pasturelands is free or governed by customary norms in all Project and Control Villages. Similarly, in all but 16 per cent Project and Control Villages there is free access or customary rules to access pastureland. In the 16 per cent Villages the *panchayats* govern the access.

Table 2.1: Land Use Pattern and management of forest and pasture lands		
Land Use Pattern (Per cent of geographical area under different uses)	<i>Project villages</i>	<i>Control villages</i>
Forest	33.6	5.2
<i>Not available for cultivation</i>	18.4	15.8
Area under non-agricultural uses	1.5	2.7
Barren and unculturable land	8.8	7.0
Permanent pasture and other grazing land	7.1	6.1
Culturable waste land	2.7	9.9
Fallow lands	9.6	1.7
Net sown area	35.6	67.6
Total geographical area (hectares)	8766	4643
Forest and Pasturelands		
<i>Forests under protected cover</i>		
Per cent of villages		12.5
Per cent of forest area		20.0
Tree density per hectare		312
<i>Unprotected forest areas</i>		
Tree density per hectare		63
<i>Pasturelands under protected cover</i>		
Percent of villages		62.5
Per cent of pastureland area		48.0
Tree density per hectare in protected pasturelands		282

<i>Unprotected pastureland areas</i>			46
Tree density per hectare in unprotected pasturelands			
Access and Use of Forests and Pasture lands (per cent villages)			
<i>Forests</i>			
Collecting fuel wood			
Free Access	25.0		75.0
Governed by Forest Department	75.0		25.0
Collecting Fodder			
Free Access	50.0		75.0
Governed by Forest Department	50.0		25.0
Collecting minor produce			
Free Access	50.0		75.0
Governed by Forest Department	50.0		25.0
<i>Pasture lands</i>			
Collecting fuel wood, fodder and produce			
Free Access	100.0		100.0
Effectiveness of Rules formed by the Forest Department (per cent villages)			
<i>Impact of rules enforced by Forest Department</i>			
Nil			100.0
Somewhat effective	100.0		
Very effective			

Use of forests and pasture lands

More than half APL households and more than three-fourth BPL households collect fuelwood from the commons. Similarly, a very high proportion of households collects grasses from the common lands.

Table 2.2: Percentage of sample households reporting collection of fuel, minor produce and grasses from forests and Common Property Resources and Average collection per annum (Rs)				
	APL		BPL	
	Households	Collection (Rs)	Households	Collection (Rs)
<i>Project Villages</i>				
Fuel	96.7	1601	96.7	1014
Fruits	8.9	1281	15.7	1382
Grass	72.2	1938	58.7	1283
<i>Control Villages</i>				
Fuel	55.8	835	79.5	656
Fruits	2.5	367	4.5	557
Grass	52.5	984	45.5	949

Encroachment of forests and pasture lands

With the exception of one Control Village in the sample, in all other Villages there has been encroachment of the common lands. All existing social groups have engaged in encroachment. Very few villages (less than 25 per cent) have described the efforts to remove encroachment somewhat effective or effective. See Table 3.

	Forests		Pasture Lands	
	<i>Project Villages</i>	<i>Control Villages</i>	<i>Project Villages</i>	<i>Control Villages</i>
<i>Per cent of villages where land encroached</i>	25.0	8.3	75.0	50.0
Average area encroached (hectares)	33.6	40.0	44.2	32.2
Per cent villages where General caste has encroached	100.0	100.0	88.9	100.0
Per cent villages where OBC has encroached	66.7	100.0	66.7	83.3
Per cent villages where SC has encroached	0.0	0.0	22.2	66.7
Per cent villages where ST has encroached	33.3	100.0	11.1	83.3
Per cent villages where landless has encroached	100.0	100.0	22.2	50.0
<i>Agency making efforts to remove encroachment in per cent of villages</i>				
Community	0.0	0.0	16.6	100.0
Caste group	0.0	0.0	16.6	0.0
PRI	0.0	0.0	33.3	0.0
Officials	0.0	0.0	33.3	0.0
<i>Efforts to remove encroachment in per cent of villages</i>				
Nil	100.0	100.0	66.7	83.3
Somewhat effective	0.0	0.0	33.3	16.7
Effective	0.0	0.0	0.0	0.0

Extent of irrigation and cropping intensity

The net irrigated area as per cent of net sown area is 24 per cent in Project Villages and 15 per cent in Control Villages. The cropping intensity is 126 in Project Villages and 108 in Control Villages. See Table 4.

	<i>Project Villages</i>	<i>Control Villages</i>
Cropping Intensity	129	127
Net irrigated area as per cent of net sown area	40.8	86.9
Gross irrigated area as per cent of gross sown area	32.8	78.3

Note: Cropping Intensity is 100 times the ratio of gross cropped area to net sown area

Surface Water Bodies

There is on an average 0.5 village pond in Project Village and 1.8 in Control Villages. One tank in each of the Project and Control Villages is used for irrigation. There is free access to these surface water bodies. There is a canal system in one-fourth Project Villages and in 8 per cent Control Villages. This is also maintained by customary norms. There are no Water user Associations regulating their usage.

Groundwater

In both Project and Control villages there are dug wells used for irrigation. The average depth of dug wells is 83 and 79 feet respectively. Tube wells are few and wherever they exist, the average depth is over 130 feet. All villages have handpumps.

Livestock

Livestock is another resource; the presence or absence of which is directly related to the natural resource endowment available. See Table 6. There are on an average 3 bullock carts in Project Villages and 13 in Control Villages.

Table 2.5: Surface water bodies and their management		
	<i>Project Villages</i>	<i>Control Villages</i>
<i>Tank</i>		
Per cent of villages having tanks	41.6	25.0
Per cent of villages with tank irrigation	0.0	8.3
Average area irrigated (hectares)	0.0	3.2
Average number of farmers benefiting per village	0	3
Management practice		
Free access	100.00	100.0
<i>Canal</i>		
Per cent of villages having canals	8.3	62.5
Average area irrigated (in hectares)	16	70.4
Average number of farmers benefiting per village	100	70
Management practice		
Free access		50.0
Government controlled	100	41.7
Water User Association		8.3
<i>Anicut</i>		
Per cent of villages having anicut	33.3	37.5
Average number of anicuts	3	1.0
Per cent of villages with anicut irrigation	50.0	0.0
Average area irrigated per village	18.4	0.0
Average number of farmers benefiting per village	50	0.0
Management practice		
Free access	75	100.0
Government controlled	25	
<i>Nadi</i>		
Per cent of villages having nadi	33.3	75.0
Average number of nadi	1	1.5
Management practice		
Free access	100.0	100.0
<i>Groundwater status</i>		
<i>Private dug wells</i>		
Average number of dug wells	8	31
Average water table (ft)	38	51
<i>Private tube wells</i>		
Average number	18	47
Average depth of tube wells	173	131
Percent saline/ brackish/ fluoride wells	0.0	0.0

Table 2.6: Average number of livestock units and bullock carts per village		
	<i>Project Villages</i>	<i>Control Villages</i>
Livestock units	484.7	304.9
Bullock carts	31	13

Box 2.1: Augmenting the Natural Resource Endowment and Building Institutions

The Base Line Survey finds that there is a potential and the need to augment natural resource endowment in both Project and Control Villages. A very small share of the pasturelands and forest area is protected. The large tracts of barren and wastelands can be suitably treated. This would check degradation and generate more resources for the livestock. More number of surface water bodies can help harnessing rainwater, which would also increase the groundwater potential. Institutions that manage the common resources are weak and need to be strengthened, perhaps with the help of PRIs.

The efforts to augment the natural resource endowment would benefit both the APL and BPL households alike, though initially at least the average benefit of the APL may be higher, as they collect more output from these resources. The marginal benefit shall be higher for BPL households (as their total income from other sources is substantially lower).

Encroachment of forests and pasturelands reflects a weak civil society and absence of community based institutions. The DPIP provides an opportunity to build an environment in which such institutions can emerge, wherever they are absent.

II. Natural Resource Endowment

B. Private Property

Distribution of land

Landlessness in this region is high compared to other districts in the state. In Project Villages 24 per cent and in Control Villages 29 per cent of all households are landless. Among BPL households two-fifth in Project Villages and one-half in Control Villages are landless. Among woman headed households this percentage is significantly higher, 33 and 40 per cent respectively. See Table 2.7.

	<i>Project villages</i>	<i>Control villages</i>
Per cent of all households	23.9	29.4
Per cent of APL households	17.5	25.7
Per cent of BPL households	41.6	49.8
Per cent of woman headed households	32.9	40.0

Source: Village Census (Household Listing)

Land distribution is highly skewed in both Project and Control Villages. The lowest two income deciles of the households own 8 per cent of the land in Project Villages and 5 per cent in the Control Villages. The top two deciles own 57 per cent and 50 per cent of the land, respectively. In Project Villages 62 per cent of the households are marginal and small farmers and they own 28 per cent of the land. In Control Villages their shares are 53

per cent and 17 per cent respectively. The BPL households own 9 per cent of the total land in Project Villages and 4 per cent in Control Villages. See Table 2.8 for land distribution.

Land size	All		APL		BPL	
	Households	Land owned	Households	Land owned	Households	Land owned
<i>Project villages</i>						
Upto 1 hectare	31.8	8.7	19.5	5.4	12.3	3.2
1-2 hectare	30.1	19.4	23.5	15.2	6.5	4.1
2-4 hectare	26.0	32.9	24.6	31.2	1.4	1.6
Above 4 hectare	12.1	39.1	12.0	38.5	0.2	0.5
<i>Total</i>	100	100.1	79.6	90.3	20.4	9.4
<i>Control villages</i>						
Upto 1 hectare	27.1	5.3	20.2	4.0	6.9	1.3
1-2 hectare	24.8	11.5	21.9	10.2	2.9	1.4
2-4 hectare	27.0	25.2	26.1	24.5	0.9	0.7
Above 4 hectare	21.0	58.0	20.9	57.8	0.1	0.2
<i>Total</i>	99.9	100	89.1	96.5	10.8	3.6

Source: Village Census (Household Listing)

Natural assets owned by sample households: Value, productivity and associated vulnerability

In this section we shall examine the differences in the nature of land and livestock assets owned by APL and BPL households, differences in cropping pattern, agricultural practices and crop yields. We shall also examine the extent of food security among sample households and the vulnerability associated with the drought and normal years.

The BLS reveals that the BPL households are more vulnerable than the APL on the following accounts as far as the ownership and use of natural assets is concerned.

Land ownership

Vulnerability of BPL households is associated with landlessness, small size of holdings, lack of irrigation facilities and poor quality of land. A significantly higher proportion (40 per cent in Project Villages and 60 per cent in Control Villages) of BPL households compared to APL households is landless. A significantly smaller proportion of BPL households owns irrigated land (50 per cent APL compared to 9 per cent BPL own irrigated land in Project Villages). There is a significant difference between the average land size of APL and BPL households. The unit value of land owned by APL households is higher showing that the land owned by the BPL is of inferior quality. See Table 2.9.

	Project Villages		Control Villages	
	APL	BPL	APL	BPL
Landless	3.9	39.7	3.3	59.0
Owning less than 2 ha.	7.8	39.3	4.2	33.0
Owning irrigated land	51.1	9.3	91.7	20.0
Average land owned (ha)	6.8	2.1	6.7	1.4
Average value of land owned per land owning household (Rs)	1488984	307361	4036246	621061
Unit value of land (Rs per ha)	54813	37269	149596	112136

Cropping pattern and vulnerability

The quality and land and lack of adequate irrigation facilities restrict the choice of BPL households in selection of crops. During the *kharif* season the BPL households devote a higher proportion of area to subsistence crops than cash crops compared to the APL households. During the *rabi* season BPL households devote a higher proportion of area to oilseeds than wheat. One of the reasons is that oilseeds require less water than wheat and that the BPL households have less access to groundwater. Moreover, a far less proportion of BPL households use HYV and fertilisers compared to APL households, partially due to quality of land and availability of water. See Tables 2.10 and 2.11.

Table 2.10: Percent area under major crops (by season) and total area (hectares) sown in <i>kharif</i> and <i>rabi</i>				
	Current year		Normal year	
	APL	BPL	APL	BPL
<i>Project Villages</i>				
Jowar	22.7	51.7	24.9	52.6
Soyabean	62.8	41.3	58.7	38.0
<i>Total Kharif</i>	100.0	100.0	100.0	100.0
Area under Kharif (ha)	542.9	131.3	568.2	135.3
Wheat	49.9	34.2	50.6	29.1
Oilseeds	27.1	54.6	28.4	55.0
Coriander	12.3	7.5	13.8	5.9
<i>Total Rabi</i>	100.0	100.0	100.0	100.0
Area under Rabi (ha)	458.1	82.8	509.5	89.7
<i>Control Villages</i>				
Jowar	3.1	6.8	5.8	11.3
Soyabean	92.2	69.3	91.9	66.4
<i>Total Kharif</i>	100.0	100.0	100.0	100.1
Area under Kharif (ha)	320.0	25.8	341.8	26.9
Wheat	48.1	38.8	53.2	38.7
Oilseeds	40.1	50.5	35.1	52.3
Coriander	7.7	3.4	7.0	2.3
<i>Total Rabi</i>	100.0	100.0	100.0	100.0
Area under Rabi (ha)	432.0	39.8	435.1	41.6

Table 2.11: Percentage of farmers using HYV and Fertilisers in major crops: Current year				
Crop	HYV Seeds		Fertilisers	
	APL	BPL	APL	BPL
<i>Project villages</i>				
Jowar	52.5	22.0	39.3	30.8
Soyabean	53.5	28.2	81.4	62.5
Wheat	66.3	52.9	93.3	70.6
Oilseeds	62.9	51.0	77.4	66.7
<i>Control Villages</i>				
Soyabean	39.2	54.2	89.7	54.2
Wheat	29.2	20.0	70.8	80.0
Oilseeds	19.4	20.8	92.5	83.3

Crop yields and vulnerability

The vulnerability associated with poor quality of land and inability to use HYV seeds and fertilisers gets reflected in crop yields. Besides, in a drought year the yields are even lower. The crop yields of BPL households are significantly lower than APL households. Yield rates of all crops in both *kharif* and *rabi* are two to three times lower for most crops in a drought year (Current year) than in a normal year. The yields of most crops are, as expected, higher for HYVs rather than non-HYVs. See Table 2.12.

	Current year		Normal year		
	APL	BPL	APL	BPL	
HYV Jowar main produce					
Project Villages		7.0	5.3	11.5	11.3
Control Villages					
Non HYV Jowar main produce					
Project Villages		4.7	5.6	9.4	11.8
Control Villages		3.0	2.3	18.8	14.4
HYV Soyabean main produce					
Project Villages		3.7	6.0	18.3	14.1
Control Villages		11.2	12.0	16.9	17.7
Non HYV Soyabean main produce					
Project Villages		3.1	3.4	15.9	10.9
Control Villages		7.3	5.6	15.8	16.7
HYV Wheat main produce					
Project Villages		31.7	22.5	33.0	27.5
Control Villages		28.2	24.7	33.4	30.7
Non HYV Wheat main produce					
Project Villages		28.8	22.7	34.5	21.8
Control Villages		30.0	25.0	31.3	31.5
HYV Oilseeds main produce					
Project Villages		8.6	9.4	16.6	15.1
Control Villages		13.6	12.2	21.4	16.0
Non HYV Oilseed main produce					
Project Villages		5.8	3.4	11.7	10.2
Control Villages		19.0	8.5	20.7	14.3

Share of agricultural produce marketed

The BPL households retain a relatively higher share of foodgrain and fodder produced for own consumption, which on an average meets 10 months of requirements in a normal year and 8 months in a drought year. The APL households market more than half of their foodgrain production and are able to meet most of their foodgrain requirements for a year. See Table 2.13.

Table 2.13: Average share (%) of foodgrain and fodder produced retained for home consumption and number of months the quantities retained would last				
Foodgrain	Current year		Normal year	
	APL	BPL	APL	BPL
<i>Project Villages</i>				
Average share	56	88	53	75
Average number of months	10	8	11	10
<i>Control villages</i>				
Average share	42	86	37	74
Average number of months	12	8	12	10
Fodder				
<i>Project villages</i>				
Average share	89	96	83	90
Average number of months	9	6	10	8
<i>Control villages</i>				
Average share	72	94	67	91
Average number of months	11	9	12	10

Livestock

The APL households on an average own 1.8 times the number of livestock units than the BPL households. Cows and buffaloes owned by APL households yield 1.5 times milk than those owned by BPL households. In most of the indicators mentioned above, the values are marginally higher for the Control Villages compared to Project Villages.

Table 2.14: Percentage of households owning livestock, average number of livestock units and average value of livestock owned per household			
	APL	BPL	
<i>Project Villages</i>			
Per cent of households owning livestock	88.3	67.3	
Average number of livestock units owned by livestock owning households	7.8	3.2	
Average value of livestock owned by livestock owning households (Rs)	23612	6426	
<i>Control Villages</i>			
Per cent of households owning livestock	93.3	57.0	
Average number of livestock units owned by livestock owning households	5.7	3.3	
Average value of livestock owned by livestock owning households (Rs)	15227	8456	

Table 2.15: Milk production per household per milching animal)								
Animal	APL				BPL			
	Per Animal Unit		Per Household Unit		Per Animal Unit		Per Household Unit	
	Current year	Normal year	Current year	Normal year	Current year	Normal year	Current year	Normal year
<i>Project Villages</i>								
Cow	320	348	585	674	241	395	331	544
Buffaloes	731	952	1615	2102	510	828	551	894
Goats	95	112	353	414	156	188	385	463
<i>Control Villages</i>								
Cow	447	274	616	378	178	482	670	247
Buffaloes	886	458	1266	654	598	1095	1674	917
Goats	123	69	159	89	60	124	263	127

Box 2.2: Land distribution and vulnerability associated with agriculture and animal husbandry

Baran district has a highly skewed distribution of land and the proportion of landless and small farmers is high. The share of culturable wastelands and permanent fallow lands in the total geographical area being significant, DPIP may provide an opportunity to distribute such land to the poor. Some recent schemes of the NABARD that are designed to provide loans to the landless to purchase land can also be dovetailed to the DPIP.

The poor adopt a cropping pattern that suits their inferior land quality and lesser availability of groundwater. Their crop yields are significantly lower than APL households. Assuming that the choice of APL households reflects a higher value added pattern, the BLS shows that BPL households sow more of lesser value addition crops. Changing the cropping pattern of the poor households to high value added crops would require investments in land improvement, increasing irrigation potential, agriculture extension services, credit, and protection against risks through an insurance mechanism. The planned interventions could be group based, which provides both challenges and opportunities.

Fluctuations in agricultural output due to drought conditions expose the vulnerability of households, more in case of BPL than the APL. The availability of foodgrains to the households is reduced to the extent, which it needs to compensate through wage labour or other means. The fall in agricultural output also influences livestock yields, the marginal decline being higher for poor households for whom crop waste fodder comes in short supply, for their already inferior quality of livestock. Livestock yields are dependent on agricultural output at the household level and attempts to increase livestock numbers or yields without increasing agricultural output may be counter productive.

II. Physical Infrastructure and Services

In this section we shall examine the status of infrastructure such as rural roads and electrification, market infrastructure, school and health facilities and an assessment of services by the community as obtained from Focus Group Discussions. A poor rural physical infrastructure such as roads (and therefore distance of the nearest bus stand) affects mobility of women and men. Access to commodity and labour markets, schools and hospitals gets restricted if the road and transport network is weak. Consequently wages within village may be depressed, children especially girls may not access higher education, treatment of diseases get postponed affecting, perhaps, women more than men.

The BLS reveals the following characteristic features:

Rural roads, transport network and rural electrification

Though *pucca* roads connect most villages among the Project Villages, their condition is described as poor. Public transport facilities are available at an average distance of around 5 Km. Rural electrification has reached most villages but the numbers of illegal connections outnumber legal connections. See Table 2.16.

Table 2.16: Select Indicators on infrastructure		
	<i>Project Villages</i>	<i>Control Villages</i>
<i>Roads and transport network</i>		
Percentage villages with <i>pucca</i> road	83.0	25.0
Per cent villages where road condition described as good	16.7	12.5
Average distance of bus stand from village (Km)	5.9	6.0
Average distance at which jeep is available (Km)	12.3	9.3
Average distance of rail station from the village (Km)	50.8	10.1
<i>Rural electrification</i>		
Per cent villages electrified	75.0	100.0
Average number of electricity connections for irrigation per village	7	42
Average number of illegal electric connections per village	11	63

Market infrastructure

Wherever market infrastructure is weak, producers are not able to realise the full value of their produce and have to pay a higher price for intermediary inputs and commodities for final consumption. We find that the market infrastructure is poorer in Project Villages. The access to organised agricultural markets (*mandies*) is higher in Control Villages than Project Villages. Almost all villages have grocery shops where most items of daily use are available. The poor depend on Fair Price Shops but the supply of commodities from these is very irregular: more for foodgrains than kerosene. There is no dairy network in either Project or Control Villages. The Village Cooperative Societies (VCSs) are almost dysfunctional and a very small proportion of cultivators purchase agricultural inputs and fewer are able to obtain these on credit. The APL households access VCSs marginally more than the BPL. See Table 2.18.

Table 2.17: Select indicators for access to markets		
	<i>Project Villages</i>	<i>Control Villages</i>
Percentage villages where there are grocery shops	91.7	87.5
<i>Per cent of villages reporting irregular supply in Fair Price Shops</i>		
Wheat	83.3	62.5
Sugar	33.3	37.5
Kerosene	33.3	12.5
Per cent villages where more than 50 per cent of agricultural produce is sold within village	25.0	0.0
Per cent villages where more than 50 per cent of agricultural produce is sold in the Krishi Upaj Mandi	58.3	100.0
Per cent villages where milk is sold to a dairy cooperative	0.0	0.0

Table 2.18: Access to Village Cooperative Society (VCS) for purchase of agricultural inputs				
	<i>Project Villages</i>		<i>Control Villages</i>	
	APL	BPL	APL	BPL
Per cent cultivators accessing VCS for inputs	10.7	2.9	20.4	9.1
Of the above obtaining inputs on credit (%)	38.1	25.0	37.5	33.3

School infrastructure

All villages have a primary school and a large majority has drinking water facilities. However, very few schools have toilet facilities for girls. Very few teachers stay within the village and commute from a nearby town. Given the poor infrastructure of roads and transport, a majority of teachers who commute may not be able to work to their full potential. The average distance of Senior Secondary schools is more than 10 Km, which restricts at least the girls' more than boys' access higher education. Most schools have an 'effective' Village Education Committee (VEC). The participation of poor and women in these though small is encouraging. See Table 2.19.

Table 2.19: Access to educational facilities and functioning of Village Education Committees (VECs)		
	<i>Project Villages</i>	<i>Control Villages</i>
Percentage villages where there are Anganwaris	75.0	75.0
Per cent villages with a primary school	100.0	100.0
Per cent primary schools with a toilet for girls	0.0	37.5
Per cent schools with drinking water facility	75.0	75.0
Per cent male teachers residing in the village	23.5	25.7
Per cent female teachers residing in the village	25.0	25.0
Average distance of upper primary school (Km)	2.0	1.2
Average distance of Senior Secondary school	16.8	11.5
<i>Village Education Committees (VECs)</i>		
Percentage villages where there are VECs	75.0	75.0
Per cent villages where Effectiveness of VEC described as good or average	50.0	100.0
Per cent villages where participation of poor described as average	33	87
Per cent villages where participation of women described as average	33	63

Health infrastructure

Health facilities are available at a considerable distance and given the condition of rural infrastructure, the treatment of ailments is usually delayed. Veterinary infrastructure is also located at an average distance of more than 10 Km. See Table 2.20.

Nature of services provided

A range of services including Agriculture Extension, Veterinary, Health and Education are provided by government agencies. The nature of services provided and their assessment by the community is presented in Table XX. It is seen that Agriculture Extension Services has reached no more than a quarter of the villages and are largely ineffective. Veterinary Services has also reached in only a few villages and are largely ineffective. The school records show a very small proportion of children as not enrolled. However, as discussed later, the number of out-of-school children is higher than shown in school records. Health services of immunisation provided by ANM records shows high level of achievements. The services of ANMs are largely described as unsatisfactory. A very small proportion of eligible couples adopt family planning measures. See Table 2.21.

	<i>Project Villages</i>	<i>Control Villages</i>
ANM Centre	3.3	2.4
Sub Centre	5.2	5.1
Primary Health Centre	18.8	11.4
Veterinary Care Centre	12.4	10.5

	<i>Project Villages</i>	<i>Control Villages</i>
<i>Agriculture extension</i>		
Per cent villages where training camps organised	16.7	25.0
Per cent villages where women participated	0.0	12.5
<i>Veterinary services</i>		
Per cent villages where cattle camps organised	0.0	12.5
<i>Primary schools</i>		
Per cent boys out of school as per school records	12.2	1.2
Per cent girls out of school as per school records	16.8	3.4
<i>Health services (as per ANM Records)</i>		
Per cent children immunised for measles	79	89
Per cent mothers immunised for tetanus 2	79	85
Per cent eligible couples undergone sterilisation	19.9	31.0
Per cent eligible couples using spacing methods	37.5	20.9
People's assessment of various services (per cent of villages)		
<i>Agriculture extension service</i>		
Effective	16.7	12.5
<i>Veterinary services</i>		
Satisfactory	16.7	25.0
<i>Health services</i>		
ANM services satisfactory	17.0	37.0
<i>Anganwari services</i>		
Satisfactory	36.0	50.0

Note: Immunization data in table above, is problematic as we had discussed. Also perhaps education data. Their sources are not consistent with the other sources of information information in this table. Hence I suggest deleting them

Box 2.3: Poor physical infrastructure and services increase vulnerability

Physical infrastructure and services are in a poor condition in both Project and Control Villages. The DPIP can contribute significantly to its improvement. Once again, the average benefits of such interventions may be higher for APL households but BPL households will benefit more at the margin and the trickle down effect. They would, however, directly benefit from interventions such as road construction, which would increase the accessibility to wage labour markets. More girls and also boys may be able to access higher education as and when the transport network improves. Market infrastructure, especially for agricultural inputs and output is situated at a distance, which makes the role of Village Cooperative Societies more significant. The DPIP may be able to build an environment where the cooperatives can function better and enrol more households. School infrastructure needs suitable improvement, especially toilet facilities. In some villages there are effective VECs and in others they need to be created. All services, namely, education, health, veterinary, agricultural extension and the public distribution system are weak and not to the satisfaction of the community. The Programme can help generate demand for effective services, such as regular supply in Fair Price Shops, visits of agriculture extension and veterinary agents as well as the ANM, immunisation and family planning, and schoolteachers to stay in the village itself. The DPIP can also help motivate out of school children to access the existing services.

III. Financial infrastructure

While both rural banks and village cooperative societies exist within 10 Km of most villages, the access to these services is severely limited. Even among APL households less than one-fourth access banks or cooperative societies for credit; the proportion of BPL households accessing credit from formal institutions is even less. Informal institution of the Self Help Group is also found in less than one-fourth of the Project Villages, while there are no Groups in Control Villages. See Table 2.22.

The proportion of BPL households accessing moneylenders and friends and relatives for credit is higher than the proportion of APL households. The moneylenders, friends and relatives perceiving a higher risk in lending to the BPL households charge them a higher rate of interest. Those APL households who have access to formal institutions borrow sums to the tune of Rs 100,000 compared to Rs 20,000 by the BPL households. Thus both formal and informal institutions favour the APL who have far greater access to formal and informal institutions and can borrow higher amounts than the BPL. While APL generally borrow for investment purposes or inputs for agriculture, the bulk of borrowing by the BPL is for consumption and social purposes and that too at a higher rate of interest. See Table 2.23.

	Project Villages	Control Villages
Distance of Bank	7.3	10.5
Distance of Village co-operative societies	6.1	6.4
Distance of Land Development Bank	29.5	13.1
Per cent villages with SHGs (Male)	16.7	0.0
Per cent villages with SHGs (Female)	25.0	0.0
Percent villages where nature of Banking services described as satisfactory	16.7	25.0

	Project Villages		Control Villages	
	APL	BPL	APL	BPL
Bank	24.4	3.7	18.3	3.5
Average amount borrowed	108916	12896	131000	15000
Investment	40.9	72.72	22.72	28.57
Input in agriculture	59.1	27.27	77.27	57.14
Co-operative Society	3.1	2.0	10.0	2.0
Average amount borrowed	23286	13000	63700	74625
Investment	14.3	16.66	15.38	25.00
Input in agriculture	85.7	83.33	84.61	50.00
Social purpose	-	-	-	25.00
Money Lender	5.6	1.3	3.3	19.0
Average amount borrowed	19800	15876	20000	17526
Investment	10	5.88	-	10.52
Input in agriculture	70	23.52	100	21.05
Consumption	10	38.23	-	21.05
Social purpose	10	32.35	-	47.36
Friends & Relatives	10.0	12.3	5.8	6.0
Average amount borrowed	21389	12936	25571	20167
Investment	0	5.40	28.57	75.00
Input in agriculture	50	18.91	42.85	8.33
Consumption	16.66	29.72	-	-
Social purpose	33.33	45.94	28.57	16.66

Box1.4: Financial Infrastructure: Availability of credit to the poor

Access to formal sources of credit to the poor is very limited. Moreover, the average amount borrowed by an APL borrower from a bank is almost 8 times more than what a BPL borrows. In the absence of credit from formal institutions, neither the poor are able to build their assets, nor do they get loans for agricultural inputs. The poor more than the non-poor reaches out to relatives and friends or moneylenders in times of need.

A micro finance strategy can have significant empowerment effects and reduce vulnerability. It can enable poor to mobilise their savings and consequently smoothen their consumption and incomes, thus reducing the severity of poverty, help build assets and facilitate risk management.

IV. Human Capital

Most demographic indicators are more favourable in Control Villages compared to the Project Villages. While population growth rate seems to be contained in the Control Villages, it is still high in the Project Villages. The Sex Ratio is unfavourable in both sets of villages. The most disadvantaged group is the SC women in the Project Villages where the Sex Ratio is only 762. The ST women in Project Villages do not face a similar discrimination where the Sex Ratio is 949. See table 2.24.

	Project Villages		Control Villages	
	1981	1991	1981	1991
Total population	5298	6734	5019	5697
Percent increase in population		27.1		
Average household size	5.4	5.9	5.4	6.3
Sex Ratio	921	874	898	903
Sex Ratio in age group 0-6		919		888
Sex Ratio among SCs		762		889
Sex Ratio among STs		949		846
Male literacy rate for population above 6		34.1		55.8
Female literacy rate for population above 6 years of age		7.3		12.0

Source: Census of India

Most demographic indicators are more favourable among APL households compared to BPL households. The BPL households have a higher dependency ratio, despite the fact that their average household size is lower. This is explained by the fact that the proportion of Joint Family households is significantly lower among BPL households. The Sex Ratio in Project Villages is more unfavourable for BPL but the reverse is true in Control Villages. The Sex Ratio in the 0-4 age group is lower than the overall sex ratio only among the BPL in Project Villages. The mean age at marriage of both male and female is significantly lower than the legal minimum age fixed for marriage.

	<i>Project Villages</i>		<i>Control Villages</i>	
	APL	BPL	APL	BPL
Per cent Joint Family households	34.4	16.0	40.0	27.0
Average household size	6.4	5.2	6.4	5.3
Sex Ratio	837	821	795	853
Sex Ratio 0-4 age group	859	747	1000	873
Mean age at marriage (Male) of population in age group 15-25	15.5	15.7	18.0	18.0
Mean age at marriage (Female) of population in age group 15-25	12.3	13.1	16.3	15.4
Dependency ratio	0.76	0.89	0.64	0.85
Fertility ratio	0.29	0.32	0.22	0.31

Note: Fertility ratio has children in age group 0-4 in the numerator and married women in the age group 16-44 in the denominator

The unfavourable sex ratio and low age at marriage find their correlates in the educational status of the households. The overall scenario is poor wherein more than half the adult population is not able to read and write with comprehension. Among BPL households this proportion is significantly worse.

Educational status

The ability to read and write with comprehension among the population in the age group 15 and above gives an indication of the capacities of the working population and the inherent potential to be productive in occupations where these skills are of some value. It is found that the ability to read and write with comprehension is higher in Control Villages and among APL households. The differences in the ability to read and write between male and female population are of the order of 2.5 to 5 times. See Table 2.26.

<i>Project Villages</i>				<i>Control Villages</i>			
APL		BPL		APL		BPL	
M	F	M	F	M	F	M	F
58.3	14.8	34.1	6.5	79.8	29.1	57.5	12.9

The per cent of children going to school is very much in the predicted order: Boys more than girls, APL children more than BPL children and Control Village children more than Project Village children go to school. The differences are significant and increase in the age group 11-14. The main reasons for not sending children to school or drop out are “Parents felt education unimportant” and “Financial constraint”. BPL households cite the latter more. The main reason for drop-out among girls is cited as “Attending domestic chores”. See Table 2.27.

	APL		BPL	
	Male	Female	Male	Female
<i>Project Villages</i>				
6-10	78.9	63.8	60.4	56.3
11-14	88.7	28.9	69.6	48.8
<i>Control Villages</i>				

6-10	95.2	96.8	72.9	74.2
11-14	100.0	71.0	83.3	64.4
Main reasons for not attending schools (per cent responses)				
<i>Project Villages</i>				
Parents feel education unimportant	42.1	40.9	36.6	37.9
Financial constraint	10.5	6.8	35.2	15.2
Attending domestic chores or household economic activity	26.3	15.9	4.2	21.2
<i>Control Villages</i>				
Parents feel unimportant			22.2	16.0
Financial constraint			37.0	56.0
Attending domestic chores or household economic activity			11.1	12.0

Health status

The proportion of population suffering from long illness is less than 4 per cent. A higher proportion of men than women and BPL than APL suffers from long illness. See Table 2.28.

	APL			BPL		
	Male	Female	Total	Male	Female	Total
<i>Project Villages</i>	2.4	1.5	2.0	3.5	1.6	2.6
<i>Control villages</i>	3.3	1.8	2.6	3.7	2.3	3.0

Note: Long illness includes blindness, tuberculosis, skin disease, and physical impairment of limbs

In short term illness, more households prefer a private medical practitioner or a PHC doctor doing private practice than going to a PHC in the Project Villages. This is reportedly because either the PHC is too far or an empathetic response is not received. In Control Villages, the BPL households follow a similar pattern. Only the APL households in Control Villages access the PHC doctor. Very few persons reported getting free medicines from PHC. The weakness of the health delivery system is reflected in and the treatment of mothers during pregnancy. Almost half the pregnant mothers are not immunised against tetanus. Among the BPL the proportion is worse. The proportion of pregnant mothers going in for institutional deliveries is small except in APL households of Control Villages. See Table 2.29.

	<i>Project Villages</i>		<i>Control villages</i>	
	APL	BPL	APL	BPL
Percentage of members taking treatment for long or short illness by type of medical personnel, receiving free medicine, and reasons for not consulting a PHC doctor				
<i>Medical personnel</i>				
Doctor at PHC or hospital	37.6	31.3	63.2	38.5
PHC doctor doing private practice	15.9	4.3	1.8	8.8
Compounder doing private practice	1.1	1.4	13.2	29.1
Private doctor	43.4	52.6	19.3	16.9
<i>Receiving free medicine</i>	25.0	19.3	2.9	2.9
<i>Reasons for not consulting a PHC</i>				

<i>doctor</i>				
Not available or too far	57.4	49.1	45.0	51.2
Not expecting empathetic response	41.9	40.9	55.0	48.8
Percentage of mothers immunised against tetanus during last pregnancy in the last 5 years and per cent women reporting institutional delivery				
	57.0	32.4	64.4	51.0
	54.8	24.8	55.9	43.3
Institutional delivery	30.0	16.8	61.0	35.0

Box 1.5: Human Capital Development

Baran is characterised by low levels of human capital among working population. This directly affects their productivity and their ability to acquire new skills. Any skill development programme for the poor may face this challenge.

The APL households in Control Villages have some characteristics that need to be underlined. The overall Sex ratio of these households is poor but they reported a Sex Ratio of 1000 for children in age group 0-4. Compared to others, a larger proportion of women can read and write with comprehension (though only 30 per cent), a larger proportion of older girls (71 per cent of girls in age group 11-14) go to school; the fertility ratio is the lowest, a high proportion of sick reach the PHC, and a higher proportion of women receive tetanus and reach for institutional delivery. The synergetic effect of higher education and availing health services, especially by women gives a direction to the immense possibilities that exist before BPL households.

The DPIP may not be able to increase the proportion of adults who can read and write with comprehension, but can surely make an attempt to enable the BPL to access the given educational and health facilities.

V. Social capital

Village institutions and organisations

We have found near absence of any formal or informal institutions in the management of forests and other common resources, but there is evidence of some active VECs. There are three other types of village organisations that impact the community. First, are the Panchayati Raj Institutions (PRIs), the local bodies of decentralised governance that are in place in all villages. Second, some villages have *Dharmic Mandals* that congregate on occasions for *bhajans, kirtan or ratjagas*, self promoted youth organisations representing youth interests in the village or *Mahila Mandals* that are groups of women centered around some activities. These informal groups help in bringing the village community (or atleast some groups of the community together). Generally, these self sponsored organisations have a secular character, socially inclusive and little, if any, opposition within the community. Third, there are the caste panchayats and almost every major caste has it own panchayat. A profile of these is also given below. See Table 2.30.

Local Self Government Representatives

Policies of positive discrimination for representation of the deprived sections have resulted in their elections approximately in proportion to their population in the villages. For similar reasons, women representation is 25 per cent in Project Villages and 30 per cent in Control Villages. It is generally believed that if women are elected, the husband exercises pseudo control over the powers vested in the women representatives. The BSL finds that this happened only in 17 per cent of Project Villages and 36 per cent of Control Villages. This shows that when women take on a responsibility, they overcome the hindrances that do not allow them to interact with the community. (The household data show that women's involvement in community affairs is low). It is also found that around half of the elected representatives are literate.

Table 2.30: Profile of village representatives in Panchayati Raj institutions		
	Project villages	Control villages
Per cent reserved constituencies	52	11
<i>Caste</i>		
General	8.3	10.8
OBC	33.3	35.1
SC	12.5	18.9
ST	45.8	35.1
Per cent female representatives	25	86
Per cent literate members	56	57
Per cent women whose spouse virtually take charge	16.7	36.4

Role of dominating castes

The influence of dominating castes in both Project Villages and Control Villages is of a significant nature. In Focus Group Discussions, in all but one of the villages the influence was categorised as “High” or “Average”. Due to significant landlessness and highly developed irrigation systems especially in the Control Villages, the dependency of the poor for wage labour on the land-owning classes has been described as “High” in most villages. The dependency is so much so that even for their personal work, especially from officials in the state, the conduit is the dominating caste. Furthermore, there is evidence of Bonded Labour through a system locally known as *Hali* in 75 per cent of the Control Villages. Given the lower level of agricultural development and prosperity in the Project Villages, the incidence of *Hali* is lower in Project Villages. See Table 2.34.

The system of *Hali* works as follows: *Halies* are hired for a duration of a year to assist in all agriculture and animal husbandry activities of the landed household. There is an annual wage contract and the wages are anywhere between Rs 7,000 to Rs 15,000 for the year depending on the age, working capacity, and past experience. The *Hali* is virtually on a 24 hour call. In the event of absence due to illness or any other reason, wages are deducted at Rs 30-50 per day. On abrogation of the contract in any part of the middle of the year, the *hali* has to return any amount obtained from the landlord with a suitable interest. The *hali* also borrows from the landlord in times of need such as illness or a death ceremony. It is interesting to note that the caste panchayats in Control Villages have kept the option of death ceremony open while in project Villages most caste panchayats have virtually banned the death ceremony. Circumstances are created in which the *hali* gets perpetually

bonded to the landlord. The *hali* if wants to change the landlord has to obtain a No Objection Certificate from the present landlord.

Conflict within the dominating castes is “low” in most villages. Conflict with other castes is described as “average”. Dominating castes attempt to socially exclude members of other castes in case of conflict – a strategy adopted to coerce them to fall in-line with them. Such strategy has been described as “High” or “Average” in majority of the Villages, being higher in the Control Villages.

Some aspects of the village community

In two-thirds of the villages all communities come together to celebrate festivals. For example, one single holi pyre is lit in 83 per cent of project and 75 per cent of Control Villages. This happens either when there is some unity in the village combined with mutual respect and trust between different communities or when the dependency of some communities on landlords is high. The community response to rape and murder has different responses in the Project and Control Villages. In the former punishment by customary norms is followed in a majority of the Villages. In the latter there are more attempts to cover up or punish by law. The most influential person in most villages is now the *sarpanch*, the *ex-zamindar* are more influential in no more than 17 per cent villages. See Table 2.34.

Relationship of the community with the dalits

The dalits share the sources of drinking water in almost all villages. However, they are not allowed entry in temples of the higher caste in a few villages. In many villages however the dalit bridegrooms are not allowed to ride horses in marriage processions See Table 2.34.

Table 2.34: Role of dominant caste in sample villages		
	<i>Project Villages</i>	<i>Control Villages</i>
Characteristics of dominant caste: Per cent villages		
Influence of dominating caste in deciding village affairs, and nature of control	58.3	62.5
Dependency of poor for wage labour	25.0	62.5
Dependency of poor for getting personal work	16.7	50.0
Permanent/ Bonded labour	08.3	37.5
Conflict within dominating caste	0.0	12.5
Conflict with other castes	0	12.5
Dominating castes attempt to socially exclude members of other castes in case of conflict	41.7	50.0
Some aspects of the village community (per cent of villages)		
<i>Occasions when the village community gets together</i>		
Festivals	66.7	62.5
Calamities	33.3	25.0
Others	00.0	12.5
<i>Incidence of Untouchability</i>		
High	41.7	62.5
Average	16.7	25.0
Low	41.7	12.5

<i>Number of places where holipyre is lit in the village</i>		
One	83.3	75.0
Two	08.3	25.0
Three	08.3	00.0
<i>Community response to rape, murder or theft</i>		
To cover up	16.7	37.5
To punish by law	25.0	37.5
Punish by customary norms	58.3	25.0
<i>Community response to the most vulnerable</i>		
Help	50.0	25.0
Neutral	33.3	75.0
Neglect	16.7	00.0
<i>Influential person that gets work done in the village</i>		
Ex zamindar	16.7	12.5
Sarpanch	66.7	75.0
Others	16.7	12.5
Per cent of villages where jajmani system are maintained		
<i>Jajmani system maintained with</i>		
Kumhar	41.7	25.0
Nai	66.7	87.5
Dholis	50.0	87.5
Relation of community with the dalits: Per cent villages		
Are dalits allowed to enter high caste temples	16.7	37.5
Are dalit bridegrooms allowed to ride a horse by the dominant caste	33.3	87.5

Gender Roles and Responsibilities

Questions were asked on roles and responsibilities undertaken by women and men, girls and boys. Some activities are almost under the exclusive domain of women and girls. In these activities less than 10 per cent men and boys reported to participate. These activities are Cooking, Cleaning and Infant care. Some activities can be described as gender neutral where the participation is almost equal. These include animal grazing and harvesting operations. In some other activities the roles of women are significantly higher but the role of men is also significant (more than 50 per cent). These include washing clothes, collection of fuel and fodder, and milching animals. In agricultural operations such as sowing, irrigation, interculture and threshing role of men is substantially higher than those of women. It is interesting to note that around 25 per cent households report women's participation in ploughing. These statistics do not allow assessing the burden of work on either gender.

We enlist certain activities that are generally considered in the domain more or less exclusively of women. These are cooking, cleaning, washing clothes, collection of fuel, collection of fodder, fetching water, infant care, child care, old age care, milching cattle and cleaning animal sheds. The ratio of women to men participation is found to be 10:4 in both Project and Control Villages. The ratio of participation of girls to boys in these activities differs across the villages. In the case of APL households in Control Villages it is reverse in favour of girls significantly. This particular change is noteworthy, where gender relations seem to be redefined with girls also reaching out for higher education in particular. Atleast, this group seems to challenge the established notion of introducing gender bias in early childhood. See Table 2.35.

Table 2.35: Ratio of women to men (and girls to boys) participation in activities considered more or less exclusively in the domain of women		
	APL	BPL
<i>Project Villages</i>		
Women to Men ratio	10:4	10:4
Girls to Boys ratio	10:6.2	10:5.7
<i>Control Villages</i>		
Women to Men ratio	10:4	10:4.3
Girls to Boys ratio	10:14	10:7.5

Women's mobility

Less than 40 per cent households in Project Villages and less than 30 per cent in Control Villages have reported women to go on their own to market place, health centre, friends and relatives. In village meetings and gatherings less than 20 per cent in Project Villages and less than 10 per cent do women go out alone. See Table 2.36.

Table 2.36: Percentage of households reporting women going alone to various places.		
	APL	BPL
<i>Project villages</i>		
Market place	38.3	38.3
Health centre	30.6	27.0
Friends and relations	40.0	39.3
Village meetings and gatherings	16.7	13.3
<i>Control villages</i>		
Market place	25.0	28.5
Health centre	24.2	24.5
Friends and relations	21.7	24.0
Village meetings and gatherings	5.0	7.5

Decisions taken in households

Questions were posed to the households on participation of either gender in decision making in the family. For each decision making act five options were given: "Mainly men", "Mainly men but also women", "Women alone", "Mainly women but also men", and "Both".

In activities related to interaction with the community, such as participation in the gram sabha and caste panchayats and in meeting social obligations, men take decisions in around 90 per cent households in the Project and Control Villages. When livelihood concerns are at stake, such as cropping pattern and employment of the adult female, in Project Villages, men alone take decisions in about 45 per cent households. However, in the remaining households though mostly men but women are also consulted. Similarly, when money is to be spent either from men's earning or of the women's, men still dominate in decision making. Women are consulted even more when children's education is concerned. Even in times of sickness women alone can take a decision to see the doctor in less than 2 per cent households. The highest response of both taking decision on an issue was 37 per cent and the issue was to have another child. The difference between APL and BPL households was significant in Choice of employment of the adult female

where men only taking decision was 35 per cent compared to 47 per cent among APL. In Control Villages the decision making is found to be more neutral; far more per cent decisions are taken by “Both”.

An Index of “Gender Neutrality” in decision making is constructed with the following values being assigned to the responses:

Response	Value
Men only	0
Mainly men but also women	1
Women alone	0
Mainly women but also men	1
Both	2

There are 14 activities on which responses were obtained allowing a maximum score of 2800. The scores obtained for Project and Control Villages as well as the APL and BPL households are indexed to a maximum value of 100 obtaining thus the Gender Neutrality Index.

Table 2.37: Index of gender neutrality (maximum value=100)		
	APL	BPL
Project villages	30	34
Control villages	38	34

Violence against women (VAW)

Focus Group Discussions revealed that violence against women on issues of Nata (explain nata), Dowry, Alcohol Abuse, Dayan (explain), Infertility, Not bearing a son, Child Marriage and wife battering existed in more than 50 per cent villages. Issues relating to unmatched marriage and sexual harassment caused violence in more than 33 per cent villages. In all issues, the incidence of violence was higher in Control Villages. Rape as a form of violence was reported in only one village each of the Project and Control category.

Kinship networks

One of the basic attributes of social capital is the extent of kinship network. Working in each other’s paternal and maternal kins fields, deciding on a cropping pattern with mutual consideration, going to the market together to sell the agricultural surplus; having a common gadariya, migrating for wage labour with mutual consent, exchanging food in times of crisis, women going out together to a market place and celebrating festivals together and borrowing amongst kins are some of the indicators of strong networks. Strain in relationships is a negative indicator.

It is found that amongst APL households the networks are stronger than among the BPL households. See Table 3.39.

A simple Kinship Network Index (KNI) may be constructed by adding the percentage of households reporting “Yes” to each of the attributes. For a total of 13 questions on positive attributes of networking the maximum possible score would be 1300. The total score is indexed to a score of 100. The value of KNI so calculated for the Project and Control Villages is given in Table 2.39.

	APL	BPL
Project villages	50	38
Control villages	39	29

Caste panchayats, ward sabhas and gram sabhas

Caste panchayats are important informal social organisations that take up mainly social issues pertaining to the castes. In Project Villages, a higher proportion of APL households reported men participation in caste panchayats compared to BPL households. An interesting fact is that compared to the caste panchayat, a lower proportion participated in gram sabha. The participation in ward sabhas is marginally higher. The participation of women in any of these organisations is less than 6 per cent. See table 2.40.

	APL		BPL	
	Adult male	Adult female	Adult male	Adult female
Project villages				
Caste panchayats attended	68.3	5.0	41.7	34.2
Ward sabhas attended	43.3	1.7	28.7	3.0
Gram sabhas attended	40.0	4.4	27.0	5.7
Voiced opinion/ problem in ward sabha	70.5	33.3	62.6	77.7
Voiced opinion/ problem in gram sabha	52.8	7.8	50.6	6.2
Control villages				
Caste panchayats attended	41.7	5.0	34.2	3.0
Ward sabhas attended	73.2	5.0	64.2	11.1
Gram sabhas attended	38.7	5.1	17.7	1.5
Voiced opinion/ problem in ward sabha	45.0	100.0	35.4	0.0
Voiced opinion/ problem in gram sabha	24.3	0.0	19.7	0.0

According to the percentages of voicing opinions it may be concluded that gram sabhas are quite participatory. Ward sabhas provide greater opportunity to both men and women to raise issues of their concern. Though the participation of women in numbers in the ward sabhas was few, 77 per cent of those who participated voiced their issues. Thus, we find that at the lowest level of decentralised unit the participation is higher. Though the functioning of gram sabhas is seemingly democratic, the lesser participation in numbers of BPL households is of concern. Their proportion as reported above is half the proportion of APL men.

Civil Social Capital and Government Social Capital

Social capital is defined to include features of both the government and civil society that facilitate collective action for mutual benefit of a group. The DPIP proposes to enhance both “government social capital” and “civil social capital”. The former refers to governmental institutions that influence people’s ability to co-operate for mutual benefit.

The DPIIP strategy is to make the governmental institutions and the Panchayati Raj Institutions (PRIs) responsive to the poor, facilitating a socially inclusive process. “Civil social capital” encompasses common values, norms, informal networks, and associational memberships affecting the ability of individuals to work together to achieve common goals.

Focus Group Discussions on social capital centered on two themes of civil social capital and government social capital. The civil social capital indicates participation in building a village community standing up in times of a crisis such as drought or an acute water shortage, looking after common pasture lands, encroachment of land by the poor, molestation of women, liquor addicts, children’s enrolment in school and help in organising ceremonies. The government social capital indicates community’s (?) response to corruption in government works, having work done from a government official, contact of the government official with the villagers, and response of a government official to the demands. The government social capital is found to be higher in Control Villages than in Project Villages.

The responses are scaled in a scale of 1 to 5 in a manner that 1 indicates lower value of networks or participation in an activity and 5 the highest. The responses are given in Appendix 1.

Social Capital Indices for civil and government social capital may be constituted by giving weights 1 to 5 to the percentage of responses to each factor of social capital. The maximum scores for each Index would be 3000. The scores for the Project and Control Villages are given in Table . It is found that the Control Villages, which are relatively well endowed with natural and man made resources exhibit lower civil social capital but the response to government institutions is relatively more. The reverse is true for Project Villages. Though they exhibit civil social capital, higher than the Control Villages, it is still only one- third of what can be possibly achieved. See Table 2.42.

Table 2.42: Social Capital Indices (maximum value = 3000)		
	Project villages	Control villages
Civil social capital	1033	700
Government social capital	1625	1650

Box 2.6: Social Capital and Gender Relations

Positive discrimination in favour of backward castes and women have given these groups more say in village affairs through Panchayati Raj Institutions. However, the dominant castes with their economic power continue to mediate between the poor and the state. A large proportion of landless households and presence of hali system help the dominant castes exercise their dominating influence in village affairs. The dalits in most villages are neither allowed to enter temples nor their bridegrooms are allowed to ride a horse in a wedding procession.

Caste panchayats, to an extent, counter the influence of the dominating castes. It is found that households who attend caste panchayat meetings are more likely to participate in gram sabhas. Caste Panchayats continue to practice traditional norms though their discourse uses the more progressive lingua.

The civil society is weak. There is little cooperation within village, in looking after common pasturelands or dealing with encroachments. The government social capital is also weak and there are many mediators between the poor and the state.

Participation in Panchayati Raj Institutions is more likely if the household has stronger kinship networks of reciprocity, participates in caste panchayat meetings, and higher is the ability to read and write with comprehension. There is a mix of such households among both APL and BPL households. However, the APL households are more likely to participate than the BPL households.

Gender roles and responsibilities follow a traditional pattern in Project Villages. However, in Control Villages where girls are reaching out for higher education, there seems to be some change in gender roles and responsibilities.

The Gender Neutrality Index of decision making in households is low. Women's autonomy is greater where the ability to read and write among women is high and their engagement as casual wage labour is significant. In large size household women's autonomy is low.

Higher participation of women in economic activities and earnings can change not only gender relations but also help build a stronger social capital in the village.

VI. Livelihoods and vulnerability

Work Participation rates

The work participation rates indicate the level of economic activity in the sample villages. These are obtained from Census data of the 1981 and 1991 population Census, thus based on complete enumeration and indicate population engaged in various economic activities and their distribution in Project and Control Villages. However, the definitions of work participation have changed between 1981 and 1991. In 1991, it was felt that some persons, especially women and children, were engaged in non-paid work on farms or in family enterprise. It was therefore, decided to include unpaid work on farm or in family enterprise as 'work' in 1991 Census. Thus 'work' was defined as participation in any economic activity. We find that except for female work participation in control villages, work participation rates have increased.(Table 2.43).

Occupation characteristics

Contrary to an expected shift in employment in time from Primary sector to Manufacturing and Tertiary, there has been substantial increase in the employment in the Primary sector between 1981 and 1991 for both male and female population, and declining participation in the manufacturing and tertiary sectors.

	Male				Female			
	Project villages		Control Villages		Project villages		Control Villages	
	1981	1991	1981	1991	1981	1991	1981	1991
Work Participation Rates	49.7	54.6	51	53.4	16.7	44.7	22.2	19.5
Primary Sector	93.1	95.4	73.6	94.2	99.4	98	54.3	98.7
Cultivators	71.9	80.3	55.7	66.6	57.0	41.7	14.3	31.0
Agricultural labourers	21.2	13.4	17.9	26.3	42.4	55.9	40.0	67.7
Manufacturing Sector	1.2	1.8	3.8	0.9	0	0.6	10.0	0
Tertiary Sector	5.7	2.9	22.6	4.8	0.6	1.3	35.7	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As expected, compared to the APL households, there is higher casualisation of work force among BPL households. As a work force, compared to males there is more casualisation of labour among female workers. The higher proportion of workers in the category of 'Self employed in manufacturing and services' among BPL households in Control Villages shows the greater degree of diversification of livelihoods here, compared to the Project Villages.

	Project Villages				Control Villages			
	APL		BPL		APL		BPL	
	M	F	M	F	M	F	M	F
Self employed in Agriculture and Animal Husbandry	85.8	84.7	42.5	47.6	80.8	89.8	26.2	19.4
Self employed in Manufacturing and Services	2.8	2.5	9.5	3.2	6.4	5.1	23.7	16.7
Casual wage labour (primary and secondary)	9.5	12.9	46.3	48.7	5.9	5.1	49.1	63.0
Services	3.0	0.0	1.7	0.5	6.8	0.0	1.1	0.9
Total	359	163	419	189	219	59	279	108
%	100	100	100	100	100	100	100	100

Characteristics of casual wage labour

Casual wage labour both within and outside the village is important source of livelihood. The dependence on casual wage labour is higher for BPL households than APL households. Migration or commuting for wage labour to another village or an urban centre is a survival strategy, more important for the less endowed regions of the Project Villages and for BPL households within them. However, in the year of survey, which happened to be a drought year, all members of 16 per cent APL households also had to migrate, seeking wage labour outside the village. See Table 2.45.

	Project Villages		Control Villages	
	APL	BPL	APL	BPL
No migration	79.8	66.3	98.0	93.0
Only male member migrated	2.7	5.6	0.8	0.5
Only female member migrated	0.5	3.4		
Both adult male and female	0.3	0.4		
All members of the household migrated for work	16.0	21.9	1.3	6.5
Migrated with animals	0.8	2.4		

The proportion of BPL adult members seeking casual labour both within and outside the village are between 1.5 to 2 times the APL adult members. Both male and female adults report significantly large number of days when they sought employment but no work was available. In control villages lesser proportion of adults work as casual labour. Table 2.46 shows the number of male and female workers, average number of days employed within village, outside village or unemployed in the last year. In some areas the incidence of working for a single patron is high. This kind of permanent labour is close to bonded labour conditions in some villages (Table 3.32A).

Employment		APL		BPL	
		Male	Female	Male	Female
<i>Project Villages</i>					
Casual labour within village	Mean	60.2	55.0	90.2	77.4
	Per cent	35.6	31.7	61.0	64.3
Casual labour outside village	Mean	70.8	66.1	75.1	69.0
	Per cent	27.1	23.0	47.8	45.2
Days unemployed	Mean	56.4	43.0	61.1	54.4
	Per cent	25.0	22.0	52.8	48.8
Wages earned (Rs.)	Mean	4516.1	3773.1	5199.7	3751.8
	Per cent	39.7	34.5	73.5	74.2
<i>Control Villages</i>					
Casual labour within village	Mean	97.0	94.4	119.7	94.7
	Per cent	11.9	6.1	58.8	62.7
Casual labour outside village	Mean	70.0	60.0	103.8	66.5
	Per cent	1.3	1.0	19.2	8.0
Days unemployed	Mean	103.6	78.6	80.2	78.8
	Per cent	6.0	3.6	42.3	34.1
Wages earned (Rs.)	Mean	6673.9	3739.2	7137.3	3550.5
	Per cent	11.9	6.1	61.9	63.5

Note: Per cent is the percentage of adult males or females in sample villages engaged as casual labour. Incidence of non-payment of wages is reported by 3 BPL households in Project villages and 2 BPL households in control villages.

Table 2.47: Percentage of households reporting worked for a single patron

	APL	BPL
Project villages	4.4	9.0
Control villages	0.8	7.5

Rural labour markets and Wage Rates for casual labour

The *wage rates fluctuate seasonally* and are dependent on the demand for labour during that period. It is highest when crops are irrigated followed by the time of harvest. Wages are higher outside village for corresponding periods. Four other aspects are of relevance. First, during the irrigation and harvesting periods the wages are higher than in other agricultural seasons. Second, the *likelihood of minimum wages being paid* through the year is higher in villages with a more developed irrigation system. Third, segmented labour markets are a common occurrence and in some seasons the labour is able to exercise a choice. The fourth aspect is that there is *discrimination in wages* paid to women, which are lower by 20 per cent or more than men's at all times of the year. See Figure 2.1.

Composition of income

A comparison of composition of income reveals that even in a drought (current) year the Primary sector remains the most predominant sector contributing to income of the households. The manufacturing sector contributes no more than 2 per cent of income of the households, and shows the lack of diversification of the economy in either the Project or Control Villages. Salaries and remittances constitute a major share of the Tertiary sector for APL households, while most of the earnings of the BPL in the tertiary sector is through casual wage labour. Earnings from wage labour constitute almost 50 per cent of the share of income of the BPL households, the share is significantly higher in drought year compared to a normal year.

The per capita income of APL households is 3 to 4.5 times that of BPL households. The differences are higher in Control Villages compared to Project Villages. The per cent fall in per capita income in a drought year from a normal year is higher for APL households than BPL households but the per capita income of BPL households was estimated to be an abysmally low of Rs 2945 per capita in the current year. See Table 2.48.

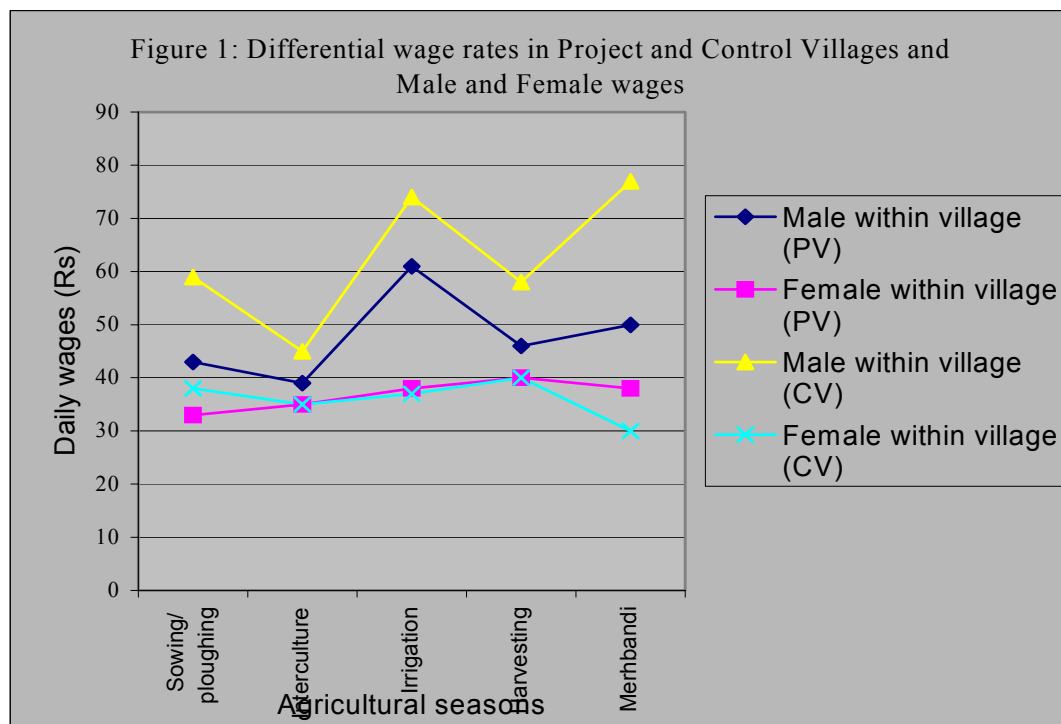


Table 2.48 : Composition of income in current year and normal year

Sector	Project Villages		Control Villages	
	APL	BPL	APL	BPL
<i>Current year</i>				
Primary		95.2	79.9	86.8
Secondary		0.2	2.1	0.3
Tertiary		4.6	18.1	12.9
Total		100.0	100.0	100.0
of which wage labour		8.2	57.4	0.2
Per capita income		9615	2945	9661
<i>Normal year</i>				
Primary		96.1	82.9	91.7
Secondary		0.2	1.5	0.2
Tertiary		3.7	15.6	8.1
Total		100.0	100.0	100.0
of which wage labour		5.3	47.2	1.8
Per capita income		15545	3817	14278
Per cent fall in per capita income in current year from normal year		38.1	22.8	32.3

Consumption patterns

While the difference between per capita consumption of grains is not significant between APL and BPL households, the consumption of all other items per capita by BPL households fall short of consumption by APL households in the range of 30 to 60 per cent. The BPL households are thus undernourished in their protein, fats, calcium, minerals, vitamins and the immediate energy needs (from sugar or jaggery) compared to APL households. See table 2.49.

Consumption of other commodities

The consumption of other essential commodities and expenditure on other items such as cloth, shoes, cosmetics, pilgrimage, electricity, ceremonies and others constitute less than 30 per cent of total expenditure, which includes all food items. While the average amount consumed by the BPL households is less than the APL households, these items constitute a larger share of their consumption.

Table 2.49: Consumption of important food items per capita per month (Kg / l)						
	APL	BPL	Per cent difference between BPL and APL consumption	APL	BPL	Per cent difference between BPL and APL consumption
Grains	15.87	15.36		16.44	15.06	
Milk and milk products	8.81	3.63	-59	5.67	2.59	-54
Oil and ghee	0.55	0.34	-38	0.52	0.29	-44
Sugar	1.17	0.81	-31	0.96	0.47	-51
Pulses	0.48	0.31	-35	0.42	0.29	-31
<i>Average percentage expenditure on non-food items per month per household</i>						
	25.6	29.9		22.4	25.8	

The Public Distribution System

The Public Distribution System is used mainly to draw supplies of kerosene and sugar. The share of purchase of these commodities from the Public Distribution System in total consumption is significant, while the share of foodgrain in total consumption even in BPL households is insignificant. See Table 2.50.

Table 2.50: Percentage households procuring commodities from PDS and their share in total consumption				
	<i>Project Villages</i>		<i>Control Villages</i>	
	APL	BPL	APL	BPL
<i>Percentage households procuring commodities from PDS</i>				
Grain		15.0		14.0
Sugar	30.0	33.3	5.0	12.5
Kerosene	50.6	53.3	70.0	69.0
<i>Percentage share of essential commodities purchased from PDS</i>				
Grain	0	0.02	0	0.01
Sugar	10.5	26.7	8.9	7.8
Kerosene	32.2	67.7	83.0	86.2

Assets owned by households

Households own many assets other than land and livestock. Such assets are homesteads (kutchra or pucca), toilet, animal shed, electric connection, fan, cooking gas, telephone, radio, TV, Refrigerator, watch, bicycle, motor cycle, jeep, tape recorder, tractor and implements, agricultural implements, cart, and chaff cutter. A

simple ownership index created by an average of the proportion of households reporting ownership of these assets is given in Table 2.51.

	APL	BPL
Project villages	25.7	11.6
Control villages	32.4	14.2

Note: This does not include land and livestock but all other physical assets

Price Index

It is important to construct a price index for comparing incomes at the end of 5 years of DPIP Project. A list of select commodities, the amounts consumed per capita and the prevailing prices are given in Table 2.52. The amounts consumed per capita form the weights (q₀) and the prices (p₀) may be used in the Fischer's Index defined below. The price indices will differ for the APL and BPL households as their consumption patterns vary.

	Quantity consumed per capita (Kg/ l)				Prices Rs per Kg/ l	
	Project Villages		Control Villages		Project Villages	Control Villages
	APL	BPL	APL	BPL		
Bajra	0.00	0.08	0.00	0.09	5	5
Maize	0.00	0.14	0.08	0.06	4.63	5.11
Wheat	13.02	10.76	16.36	14.74	6.15	5.88
Jowar	2.85	4.29	0.00	0.00	5.42	5.57
Barley	0.00	0.08	0.00	0.17	5.15	4.75
Pulses	0.48	0.31	0.42	0.29	20.98	18.89
Milk	7.86	3.37	4.76	2.34	10	11.88
Tea	0.33	0.06	0.07	0.04	145	135
Oil	0.38	0.28	0.44	0.32	33.17	35.5
Ghee	0.55	0.33	0.52	0.29	176.67	193.75
Sugar	0.85	0.64	0.88	0.46	16.92	16.69
Gur	0.32	0.17	0.08	0.01	11.42	11.63
Kerosene	0.96	0.50	0.57	0.59	10.46	9.75
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Government Programmes

The two programmes reported in all villages barring one are the IAY and the IRDP. The benefits from these programmes are described as "Substantial" or "Average" in a scale of 3. The MWS (?) programme virtually failed in Project Villages while in Control Villages the success is mixed with a failure rate of one-third. Programmes for Bore Dug Wells and Blasting Wells, though undertaken in only a few villages have been described as "Substantial" or "Average" benefit. No programmes were reported from SC/ST Corporation or the KVIC. See Table 2.53 for average number of beneficiaries in each programme and the benefits reported. An appraisal of other government programmes such as watershed, anicuts, Medbandi, JRY, MP/MLA Fund and Roads is also given in the Table. The proportion of households benefiting from poverty reduction programmes is given in Table 2.54.

Programme	Project Villages				Control Villages			
	Per cent villages	Perceived benefits			Per cent villages	Perceived benefits		
		High	Average	Nil		High	Average	Nil
MWS/ Bore dug wells	17	25		75	38	33	33	33

IAY	83	30	60	10	100	25	75	
IRDP	22	18	72	8	100		50	50
Blasting wells	17	100			13			
Watershed development	17		33	66	25	50	50	
Anicut	25	33	33	33	25			100
JRY	25	33	33	33	60	20	60	20
AGAK					33	66	33	
MP/ MLA Fund					25	50	50	
Road construction	50	33	33	33	38	66	33	

Table 2.54: Percentage of households reporting as beneficiaries of poverty reduction programmes

Programme	APL	BPL	APL	BPL
IRDP	8.9	12.3	2.5	11.0
IAY	0.6	1.7	0.6	4.5
Famine relief		1.0		1.5

Box 2.7: Livelihoods and Vulnerability

There is near absence of Manufacturing and Tertiary sectors in both Project and Control Villages. This high dependence on the Primary sector alone increases the vulnerability of both APL and BPL households. Besides, such dependence on the Primary Sector has environmental consequences. A vicious circle is created wherein environmental degradation and vulnerability mutually reinforce each other; best reflected in times of drought, which are frequent. The BLS finds that the incomes of the households reduced by almost one-third in the drought year (the year of the survey witnessed a severe drought) from a normal year. It may also be pointed out that the per capita income of the APL households is atleast 5 times the income of BPL households.

The poor are mainly dependent on casual wage labour within and outside village for their livelihoods. Wages fluctuate seasonally as does the demand for wage labour.

Consumption data of food items shows that the consumption of protein, fats and sugar are vitally lower of BPL households compared to the APL. This affects their stamina and impedes prospects of good health. The Public Distribution System does not cater to these deficiencies, and is otherwise also very weak.

The effectiveness of government programmes directed at the poor or area development has largely not been described as satisfactory.

The poor are largely left on their own in terms of sustaining livelihoods and poor educational status, poor health, limited access to credit, social exclusion to an extent restrain income generating capacities.