

GOKHALE INSTITUTE MIMEOGRAPH SERIES NO. 24.

EVALUATION STUDY OF
INTEGRATED RURAL DEVELOPMENT PROGRAMME
(SANGLI DISTRICT)

SUDHAKAR GADAM

GOKHALE INSTITUTE OF POLITICS AND ECONOMICS
PUNE - 411 004 (INDIA)

AUGUST 1986

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FOREWORD

At the request of the National Bank for Agriculture and Rural Development (NABARD), an Agriculture and Rural Development Studies Unit has been recently set up in the Gokhale Institute. This Unit is currently funded by NABARD. The first project to be taken up by this Unit was the Evaluation of Integrated Rural Development Programme in Sangli District of Maharashtra State. Another study on the Evaluation of Minor Irrigation Projects in Marathwada has also been completed by the Unit. Two other studies on the grape cultivation scheme in Nashik district and crop loan borrowings in Maharashtra State are now in progress.

The evaluation study of Integrated Rural Development Programme (IRDP) was undertaken at the suggestion of NABARD. The data were obtained from a sample survey of about 350 IRDP beneficiaries spread over 15 villages in the selected talukas of Jath and Walwa. This is, therefore, a middle-level evaluation which should provide the necessary data for improvement in the design of this programme, assess the performance of the programme and its impact on the rural economy, employment and poverty alleviation. In fact it is necessary to undertake many such middle-level studies to design development programmes suited to local economic conditions.

Programmes of rural development do not always reach all the intended beneficiaries. To study this aspect, the sample was augmented by about 65 poor families who did not receive

assistance under IRDP. Only those families, whose income from all sources did not exceed Rs. 62 per month (in 1978-79) and listed as falling below the poverty line in 1982, qualified for assistance under IRDP schemes.

The evaluation survey carefully examines various facets of IRDP. Repayment performance of loans given to entrepreneurs in different sectors has been analysed. It is found that, for all the sectors taken together, there is a 82 per cent recovery of loans, on the aggregate. In the primary sector, this percentage is 89 and in the tertiary sector it is 74. It is poorest in the secondary sector, being only 40 per cent. No significant association of repayment performance with the income of the beneficiary families was found in this study. The incremental capital output ratio (ICOR) has been worked out for various economic activities. The overall ICOR for all sectors taken together comes to 4.9. This is close to the figure of 4.0 which was the anticipated ICOR for these investments. This study has also tried to obtain information on the number of families crossing the poverty line with the help of IRDP. It has been found that 23 out of 158 families or roughly 15 per cent has risen above the poverty line with IRDP assistance. At the same time, six families above the poverty line had fallen below it during the reference period.

It is hoped that programmes of rural development would be based on carefully conducted, disaggregated middle-level studies of individual economic behaviour like the present one.

Such studies provide valuable information about the various types of economic activities carried out in specific rural areas and reveal how far special development programmes generate employment and income, improve productivity and raise the families above the poverty line.

Pune,
August, 1986.

A. Sivaswamy Srikantan
Officiating Director

PREFACE

The Integrated Rural Development Programme is the most important rural poverty alleviation programme in India. The present evaluation study of this beneficiary oriented programme was taken up in Sangli district of the Maharashtra State and is based on the sample survey of beneficiary families engaged in various primary, secondary and tertiary activities supported by this programme. Salient features of the IRD programme are given in the introductory chapter and the methodology, sampling plan and the findings of the study are presented in the following chapters. We have tried to cover various aspects like planning efforts, procedures for implementation, the performance and also economic impact of the programme on the beneficiary families.

I am grateful to the National Bank for Agriculture and Rural Development (NABARD) for providing me an opportunity to carry out this study. I am also thankful to them for their comments on the earlier draft of the report.

I would like to express my sincere gratitude to Dr. K. Sivaswamy Srikantan, Officiating Director, Gokhale Institute of Politics and Economics and Dr. Sulabha Brahme for their encouragement during the final stages of the work. I am grateful to Dr. N. Rath for his guidance in planning the study and also for his exhaustive comments on the earlier draft of

(v)

the report. I acknowledge valuable help and encouragement rendered to me by Shri D. P. Apte.

Shri D. K. Shinde, Research Assistant helped me through all the stages of the work enthusiastically and meticulously and hence my sincere thanks to him. I was assisted by Shri R. D. Khodaskar, Shri V. B. Bhosale and Shri B. C. Kamble who carried out the field work ungrudgingly. Smt. Anita Kher carried out data processing on computer, Smt. Savita Rajopadhye assisted in tabulation work. I am thankful to all of them.

Last but not the least I will fail in my duty if I do not acknowledge the cooperation given to us by the respondents and also the staff members of the District Rural Development Agency, Sangli, Block Development Offices at Islampur and Jath and the bank offices we visited for the study.

Gokhale Institute of
Politics & Economics,
Pune 411004

Sudhakar Gadam

August 20, 1986

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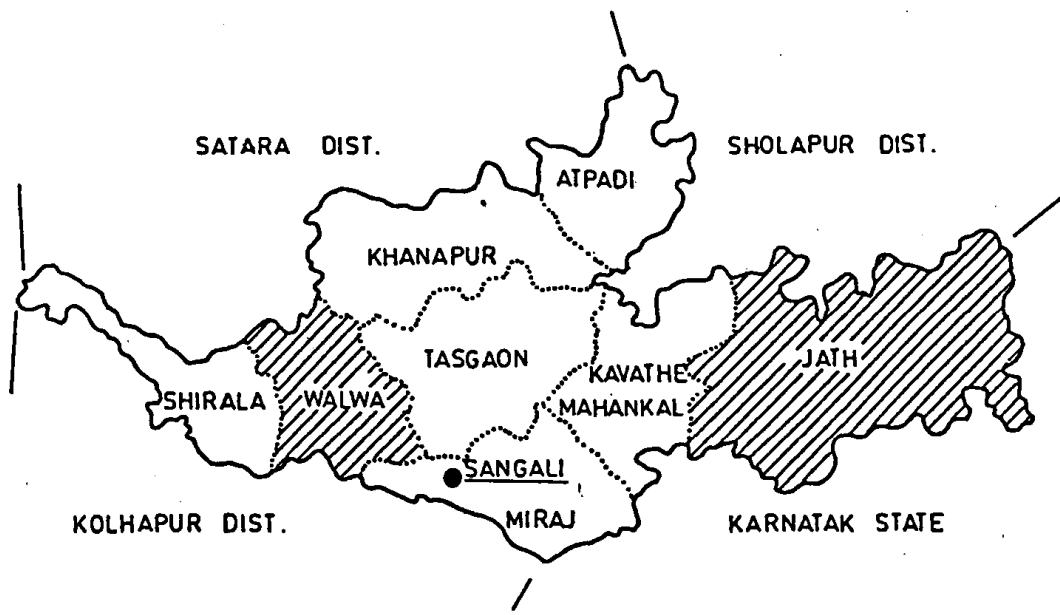
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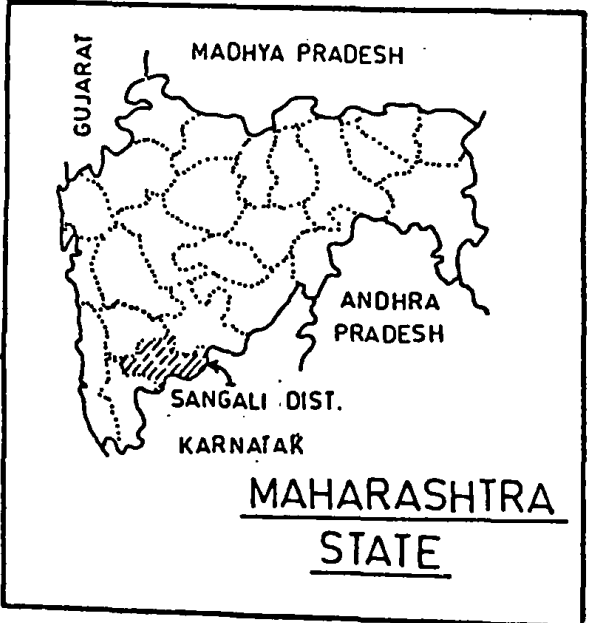
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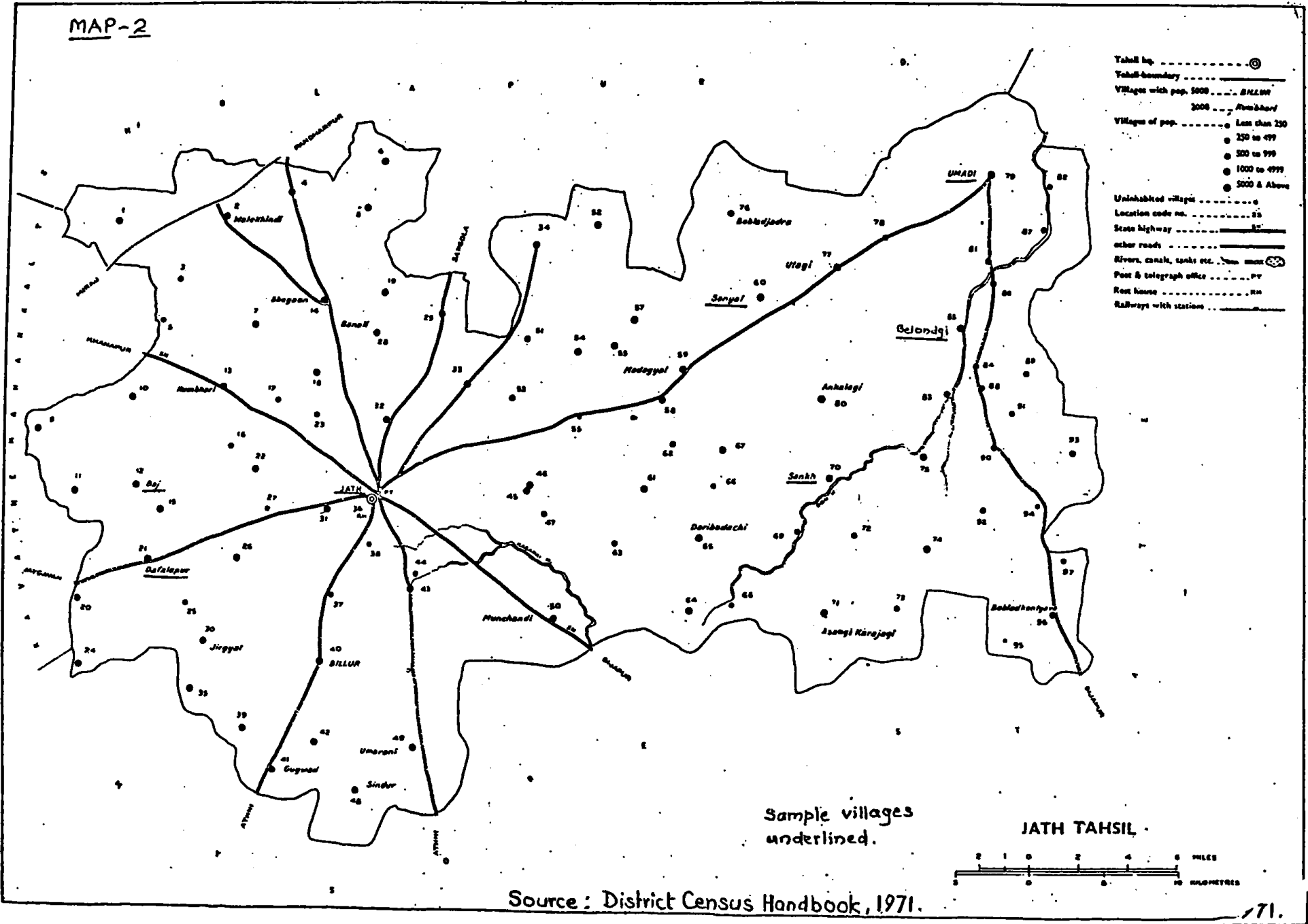
SANGALI DISTRICT

SAMPLE TALUKAS 



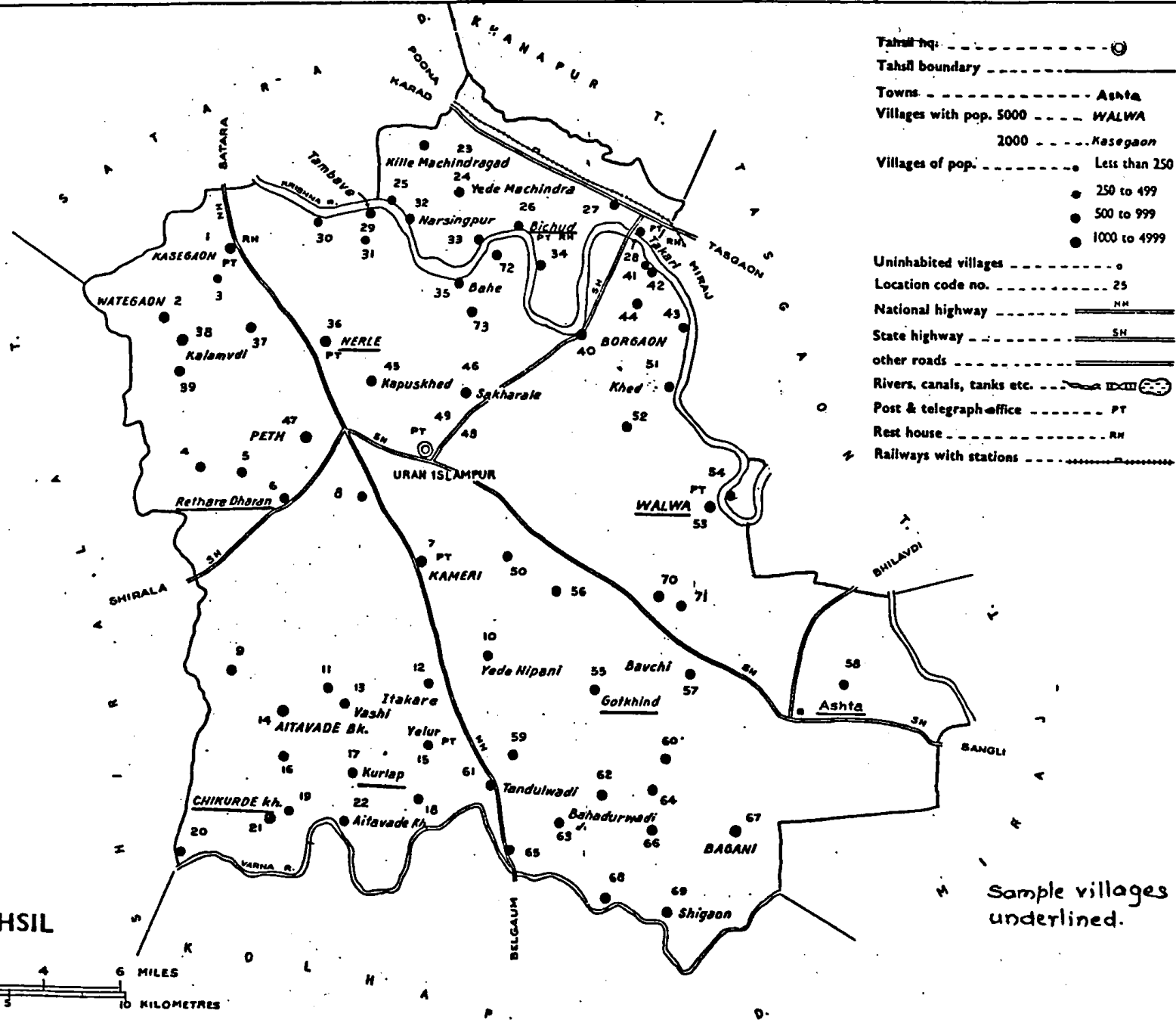
MAHARASHTRA
STATE

MAP-2



Sample villages
underlined.

MAP-3



- Tahsil hq. ----- (C)
- Tahsil boundary -----
- Towns ----- Ashta
- Villages with pop. 5000 ----- WALWA
- 2000 ----- Kasegaon
- Villages of pop. ----- Less than 250
- 250 to 499
- 500 to 999
- 1000 to 4999
- Uninhabited villages ----- o
- Location code no. ----- 25
- National highway ----- NH
- State highway ----- SH
- other roads -----
- Rivers, canals, tanks etc. -----
- Post & telegraph office ----- PT
- Rest house ----- RH
- Railways with stations -----

WALWA TAHSIL



Sample villages underlined.

Source: District Census Handbook, 1971.

SUMMARY AND CONCLUSIONS

This Evaluation Study of Integrated Rural Development Programme was taken up by the Gokhale Institute of Politics and Economics, Poona at the instance of National Bank for Agriculture and Rural Development (NABARD). Sangli was the district chosen for the study. The study was aimed at covering various aspects of Integrated Rural Development Programme (IRDP) like planning efforts, procedures for implementation of the programme, the performance and also economic impact on the beneficiary families. A sample survey about 350 beneficiaries spread over 15 villages of the selected talukas, namely, Jath and Walwa was carried out using comprehensive questionnaires. They were drawn from the families who received assistance under IRDP during the year 1982-83. This was supplemented by a sample of about 65 poor families from sample villages who did not take assistance under IRDP. A small questionnaire which covered questions pertaining to awareness regarding the programme, reasons for not taking the benefits of the schemes under the programme etc., was canvassed for these non-beneficiary families. In addition about 400 applications received during 1983-84 were studied in order to examine the aspects like time taken for processing the applications, for crediting subsidy, reasons for rejection, etc. In the following are given salient features of the study and the conclusions.

1. The Integrated Rural Development Programme was for the first time started in the year 1976-77 on a pilot basis with adhoc provision of Rs.15 crores for one year for the 20 selected districts in the country. It was extended to 2300 blocks during the year 1978-79 and to all 5011 blocks in the country in 1980-81. Over this period the programme underwent changes continuously. The IRD Programme was to be implemented with a strong planning base but over the period it stayed as a mere target group oriented programme and the comprehensive planning aspect ultimately disappeared.

For implementation of the IRD Programme, District Rural Development Agencies (DRDA) were formed all over the country. The DRDA at Sangli started functioning from 1st April 1982. At the block level assisting staff is attached to the BDO Office who look after the DRDA work of implementation of IRDP under the supervision of the Block Development Officer. The Village Level Worker (VLW) is the most important official at the grass root level in the IRD programme who plays the key roles of motivating the beneficiaries, helping them in filling in the applications, forwarding them and so on. The families under the poverty line are eligible for assistance under IRDP. The assistance is available for every viable economic activity which aims at raising the income levels of the target group. The activity to be chosen should be such that the concerned beneficiary has genuine interest in the same and that there should be potential for the same in the village.

The family whose income from all sources did not

exceed Rs. 62 per head per month was considered to be below poverty line as defined in the year 1978-79. A survey to identify such families was carried out in Maharashtra in 1982 and the lists of families below poverty line were prepared. Only those families included in these BPL lists are eligible for IRDP schemes. Subsidy component varied from 25 to 50 per cent of the sanctioned amounts with upper limits specified.

2. There are eight talukas in Sangli district. As per the BPL survey 29.76 percent rural families were below poverty line in the district with the highest percentage of 38.39 in Tasgaon taluka and lowest percentage of 22.36 in Shirala taluka. The percent of BPL families in SC/ST group was very high; at the district level it was 70.64. It was as high as 95.13 percent in Shirala taluka. In all 24.20 percent BPL families were covered in the district during three years 1980-81 to 1982-83.

There were no beneficiaries in the tertiary sector during 1980-81 and only a small number in secondary sector. It was during 1982-83 that progress was made in these sectors.

The sample of the beneficiaries of the year 1982-83 taken for the present study covered the categories of minor irrigation, dairy, sheep and goat keeping, bullock cart/pair, in the primary sector. In the secondary sector, there were cobblers, carpenters, rope makers, basket makers, etc., and in the tertiary sector there were tailoring shop, provision shop, pan shop, hotel, laundry, cycle shop, vegetable vendors, etc.

3. From the sample beneficiaries of 1982-83, it was found that the Vikas Patrikas were not distributed properly. Only a few had Vikas Patrikas with them. In most of the cases it was found that the gramsewak was the major source of information on IRDP. Proposals are prepared by the villagers at the suggestion and with the help of gramsewak. The credit camps were organized by the DRDA in a number of villages but apart from that the major source of inspiration is the gramsewak.

In most of the cases the beneficiaries reported no difficulty in getting the required documents for submitting the application. No extra security was demanded by the banks apart from two personal securities. Only in some cases minor costs were reported to have incurred by the beneficiaries in going to other places to visit BDO office or bank office, etc.; there were no other costs reported by them for obtaining the loan under IRDP. There was no evidence of any middle-man in getting the loan sanctioned.

The procedures and conditions laid down for the sanction of loan are, in general, followed excepting in the case of rural artisans where bulk applications were sanctioned without making individual proposals. It is always ascertained whether the applicant belongs to the BPL list prepared. However, the Antyodaya approach is not followed.

Family is considered as unit for financing under this programme. But there were cases of departure from this principle where people have taken advantage of land ownership status

of individual members of the family. On the basis of his land holding a member is listed in the BPL list and application is made in his name though he forms part of a family where other members also own the land.

In most of the cases in the primary sector the finance provided was sufficient for the activity. For secondary and tertiary sector also there was no reporting of insufficient finance but there is not enough scope to judge the adequacy.

In Chapter V observations based on the study of applications received during the year 1983-84 are presented. These are mainly regarding the processing of applications. It was observed that the time taken for the sanction of loan could be reduced and also the incidence of returning the applications could be reduced if the applications are scrutinized at the BDO office more efficiently. This, of course, needs proper staff strength at the BDO office. Payment of subsidy was within three months in more than fifty per cent of the case and within six months in the remaining cases. It was observed that the payment of subsidy was much faster during the year 1983-84.

It was found that there was bunching of applications during the months of August and September. There is a need to see that there is a more even flow of applications throughout the year to facilitate efficient working at every level.

4. As far as the economic impact of IRDP assistance on the beneficiary families is concerned detailed activity wise

analysis of data was done. For this, incremental income and retainable income due to IRDP activity, income of the family with IRDP activity and without IRDP activity, incremental capital output ratio, etc., are defined and computed at individual level and group level. In some cases comparisons of subgroups are made in terms of performance of the beneficiaries in obtaining the returns on the IRDP investments. The families were classified as below poverty line or above poverty line on the basis of their income without IRDP during the year 1983-84 and whether they crossed the poverty line is examined by considering the retainable income from IRDP activity.

5. For the dairy activity a sample of 82 beneficiaries was covered and it was found that five beneficiaries did not purchase animals at all and were clear cases of misutilization of funds and subsidy. Of the 82 animals purchased by the remaining 77 beneficiaries, 20 were sold and 8 died and therefore at the time of visit only 53 animals were held by 51 beneficiaries. All the 77 beneficiary cases were analysed and also separate analysis of 51 beneficiaries who held the animals at the time of visit is presented. Considering animal's age at purchase and the number of calving, it is seen that the quality of animals was not satisfactory. It is also important to note that of the 81 animals purchased only 10 were jersey or Holstein cows and all other animals were local breed buffaloes:

A detailed statistical analysis is carried out to compare the performance of beneficiaries in the two talukas, landowners and landless, SC/ST and others and also who used special feeds for their animals and who did not use. In general it was found that the performance in Walwa taluka was better than in Jath and that landowners did better than the landless. The performance of SC/ST beneficiaries was poor. Of the 77 beneficiaries, 41 were below poverty line. Twenty three received incremental income from this activity not enough to pay the instalments in other words they received negative retainable income. Only three beneficiaries crossed the poverty line.

Dairy is the largest sector every where in the IRDP coverage. It is quite known that the improved breed animals give good economic returns. One can do arithmetic and find out the number of animals required to be born if the improved animals are to be made available to the IRDP beneficiaries. This number would be much larger than the feasible number. There is a need to look back and see how the breeding programmes can be organized and how the loan for dairy animals could be matched with that.

6. We had a sample of 56 beneficiaries in the minor irrigation sector. They took finance for new well, electric pumpset, repair to old well and pipeline. In some cases the financial assistance is for a single purpose whereas in some cases it is for two or three of the above mentioned purposes. There were 7 cases of failure to strike water and in one case

water was struck only after the reference period of the study. Therefore, detailed economic analysis was carried out for 48 cases. As many as 19 beneficiaries received negative retainable income. Of the 56 beneficiaries, 25 or 44.64 percent were above poverty line and 31 were below poverty line. Eight beneficiaries crossed the poverty line during 1983-84 in this sector. Major portion of new irrigation facilities was used for growing sugarcane in Walwa but in Jath other crops like Bajra, Jowar, Wheat, Cotton, etc., were taken. The benefits in this sector would improve over time and cropping pattern may also change.

7. There were a large number of beneficiaries who were given loan for the purchases of goats and therefore we had taken a sample of 45 beneficiaries from this activity. There were only 10 beneficiaries who were above poverty line. In all 422 animals were purchased, 649 were born during the reference period, 276 died and 488 were sold. The death rate worked out to be 19.64 percent which was much less than reported in other studies. Retainable income in this sector was poor. There were 23 beneficiaries who received negative retainable income and only 22 received positive retainable income. At the group level the retainable income was negative. Only two beneficiaries crossed poverty line. There were no efforts to provide improved breed animals or to improve the management practices. Apart from the general problem of providing improved breed there is a need for a very serious and organized effort for regulating the grazing of sheep and goats. It was reported that the officials have been instructed that no new loans should be given for sheep and goat in the drought prone areas as these

animals are adversely affecting the social forestry and other plantation programmes. Whether IRDP loan is given or not the problem exists and nobody sincerely thinks of solving it. As a matter of fact an integrated village forest development programme can be taken up where plantation planning can be suitably done for production of fodder and fuel wood and also for developing grazing lands for animals. The amount of deforestation and shortage of fuel wood have reached alarming levels and unregulated tree grazing and wood cutting need to be stopped. However, there seems to be a good potential for sheep development in Jath taluka.

8. A sample of 12 beneficiaries who purchased bullock carts for using them for transport work and 6 beneficiaries who purchased bullock pairs was taken and impact on the economic conditions of the beneficiaries was studied. Bullock pairs were used for agricultural purposes on their own farms saving their costs on hired bullock power and some also hired them out. All these 18 beneficiaries received negative retainable income and only in 12 cases it was positive. Of these 18 beneficiaries only 5 were below poverty line. Two of them moved above poverty line.

9. As stated earlier, secondary and tertiary sectors were also covered under IRDP, more so from 1982-83. A sample of 99 beneficiaries with a large number of cobblers, as this is an important activity in Jath was taken. Of these, it was found that 48 were borrowers under old schemes through KVIC.

They were given cash credit facility through banks under KVIC scheme. Considering their cash credit amounts as amounts of loan the DRDA sanctioned proportionate subsidy under IRDP. Then the only effect the IRDP had on them was that they received subsidy. There was no change in their cash credit limits. There has been no new activity or fresh boost to old activity through IRDP. These cases represent mismanagement of IRDP due to the target achievement approach of the implementing authorities. These cases, therefore, were not taken up for detailed analysis.

Of the remaining 51 cases, 28 were cobblers and 23 were engaged in other activities. It was found that there were quite a few cobbler families with very high income and they were obvious cases of beneficiaries who were not eligible for IRDP benefits. They were extended benefits as it helps achieving general targets and also the targets of SC/ST group. Of the 21 beneficiaries in the secondary sector who were below poverty line only two crossed it. Half the cobblers received negative retainable income. The impact in terms of purchase of new machinery or improved tools was not encouraging.

There have been a number of schemes for rural artisans sponsored by government as well as by Khadi and Village Industries Commission. There is a need to examine the performance of these schemes thoroughly. With the advancement of technology and with the increased competition from the substitute goods, the rural artisans are facing difficulties. As a matter of fact many of them need to change their professions. But

provision of finance with subsidy components lures them to remain in profession and results in perpetuating their difficulties.

Assuming that the capital provided can help them to purchase better tools and machinery and increase efficiency, the total output in this sector would increase and with the limited demand, the competition would be more tough. Therefore, the approach has to be to limit the number of rural artisans, increase their efficiency, improve the quality of product, etc., and see that the others come out of these professions. For any effort in this direction there is a pre-requisite to identify salable products, assess the demands and find out as to how many artisan families can be sustained. Creation of market infrastructure, forming effective co-operatives, organizing training for the improvement of skills, efficiency and the quality of product, etc., also need to be taken up but only for selected products and limited number of artisans. Training for improvement of skills is necessary even for service artisans like blacksmiths or carpenters so that they can provide services for modern implements which have come to be used. Research is also necessary to see how the quality of artisans' products can be improved upon. For certain products market protection also may be desirable.

Unfortunately most of our financing schemes including IRDP ultimately become target oriented and therefore a large number of beneficiaries receive the finance which becomes counter-productive.

10. Fifty three cases of beneficiaries engaged in tertiary sector were covered in the sample. As many as 23 of them entered their respective business only after taking IRDP loan. This is significant as they were motivated to enter self-employment. The returns to these people would improve over time. Of these 23 new entrants, 5 were tailors, three had provision shop, 6 had hotel, 3 had pan shop and the remaining were engaged in other activities. In this group there were 8 women beneficiaries and most of them were new entrants. There were three women beneficiaries trained under TRYSEM. About half the beneficiaries in this sector were below poverty line of whom only six crossed it. Considering the variety of activities and the number of new entrants and women beneficiaries, the performance in this sector was encouraging.

11. Considering all sectors together, there were 153 beneficiaries below the poverty line of whom only 23 moved above it. It may be worth mentioning here that the families with negative retainable income were worse off due to IRDP. There were 8 families who were above poverty line but were pressed below the poverty line due to IRDP. Families may not move above poverty line during a specified period but their having negative retainable income is a matter of concern. The schemes of development should not at least make the recipients worse off than than before. Many of them may not feel the pinch because of the subsidy they received. But then that is unfortunate. Subsidy should not be a cause of failure.

There is a lot of attraction towards IRDP schemes

(xxx)

because it has substantial subsidy component. According to the present procedure, the subsidy is credited to the account of the borrower as early as possible after the disbursement of loan. This reduces his outstanding by the amount of subsidy. After this, if he manages to sell off his asset he stands to gain profit in the process. Therefore, there is a need for changing the subsidy payment procedure. The subsidy may be kept in fixed deposit and should be credited to his account only as the last instalment of payment provided he has paid the earlier instalments regularly. In case of irregularities like selling the assets or non-payment of dues, the subsidy should be forfeited. This procedure is followed by the banks for certain schemes like the scheme for the Educated Unemployed. This procedure would reduce the instances of profit making through subsidy grab.

12. Considering all sectors together, the incremental capital output ratio worked out to be 4.90. It was maximum for bullock cart/pair activity being 7.08, minimum in the secondary sector being 1.85. The value of ICOR for minor irrigation was 4.74, for dairy 2.69 and for tertiary sector 1.97. As stated earlier the average retainable income in goat/sheep rearing was negative.

Repayment performance was in general good. There were about 24 per cent cases who had repaid the loan fully. Of the remaining 232 cases, the percent recovery in terms of actual repayment with respect to expected repayment was more than 100

per cent in cases. Percentage recovery at the aggregate level for all sectors and two talukas together was 82. No relationship was found between repayment performance and income level of the family or per capita income or even the retainable income from IRDP activity.

CHAPTER I

INTRODUCTION

1.1 Integrated Rural Development Programme

It was observed that in spite of the economic growth achieved at the national level during the first three Five-Year Plans, the conditions of the rural poor did not improve and it was realized that a direct attack on poverty needs to be launched by identifying the members of the target groups. With this view, during the Fourth and the Fifth Five Year Plans, various programmes like Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers Development Agency (MFAL) were introduced. Also the Draught Prone Area Programme (DPAP) and Command Area Development Programme (CADP) were started. A review of all these programmes was taken and a need for a new comprehensive programme for development of rural areas was indicated. And from 1978-79 Integrated Rural Development Programme was launched.* Since some institutional and administrative infrastructure had already been created in the areas in which the above-mentioned programmes were being implemented, it was decided to select 2000 blocks out of 3000 blocks in which one or more of these programmes were being implemented. It was also decided to take up 300 additional blocks per year from outside the special

* As a matter of fact, the first pilot IRDP programme was initiated in the year 1976-77. The detailed account of the stages of the development of the IRDP programme would appear in Section 1.2 where The Plan Background to IRDP is discussed.

programme areas for intensive block level planning. Thus in the first year, it was taken up in 2300 blocks. Subsequently the IRDP programme was extended to all the development blocks in the country in the year 1980-81. Now the programme is being implemented through the District Rural Development Agencies with the help of the block development machinery. The District Rural Development Agencies (DRDA) were also given the work of National Rural Employment Programme (NREP) and the programme called Training Rural Youth for Self Employment (TRYSEM).

IRDP is one of the major programmes for poverty alleviation. All the poor families in the rural areas who live below the poverty line are to be covered by this programme in the long run. "The emphasis*" under IRDP is not on providing just some kind of assistance and achieving the target of an impressive number of beneficiaries but in providing substantial assistance to the identified participants which should increase their income by a significant extent so that they cross, once and for all, 'the poverty line'. This is how the removal of poverty through this programme was emphasised. The yearly target was to cover about 600 families per block.

For IRDP, a family approach is followed and a family is classified as below or above the poverty line on the basis of the income of the family. Under IRDP, the assistance is available for every viable economic activity which aims at raising the income levels of the target group. The activity

* Manual on Integrated Rural Development Programme, Government of India, Ministry of Rural Reconstruction, New Delhi, January 1980, p.1.

to be chosen should be such that the concerned beneficiary has genuine interest in the same and that there should be potential for it in the village. There are a number of activities for which the assistance is provided. These include minor irrigation, land development, bullock cart/pair, dairy cattle, goat and sheep rearing, poultry, fishing, farm forestry, etc. in the primary sector; all types of rural crafts like carpentry, black-smithy, rope making, leather works, bamboo works, etc., in the secondary sector; and tailoring, provision shops, pan shops, cycle shops, laundries, hair cutting saloons and so on in the tertiary sector. Under the programme of TRYSEM which is also being implemented by the DRDA's, various training programmes can be taken up as per the guidelines of the programme and the rural youth so trained can be given assistance through IRDP.

As in any other programmes, there is a large subsidy component in the IRDP. Rates of subsidy are 25 per cent of the capital cost for small farmers, $33 \frac{1}{3}$ per cent for the marginal farmers, agricultural labourers and rural artisans and 50 per cent for the tribal beneficiaries. Along with the family oriented programmes, there are provisions for community works for which the subsidy is 50 per cent. At the national level nearly 20 per cent of the outlay on the IRDP programme is being used for strengthening administrative and infra-structural support and the balance of 80 per cent is meant for subsidies to the beneficiaries for acquisition of assets.

The programme is jointly administered by the DRDA and the commercial, cooperative and land development banks. The Credit is provided by the banks and subsidies are sanctioned by the DRDA. Any proposal has to be approved by DRDA and the concerned bank.

The progress of IRDP at the national level is given in Table 1.1.1. Over a period of 5 years from 1980-81 to 1984-85, the number of beneficiaries covered is 165.62 lakhs. The coverage during the year 1980-81 was 27.27 lakhs which steadily increased to 39.82 lakhs in the year 1984-85. The coverage is more than the target of 150 lakhs. Average investment per beneficiary was a meagre sum of Rs. 1642 during the first year which also steadily increased to Rs. 3339 per beneficiary during the year 1984-85. In terms of sectorwise coverage the primary sector had a share of 93.5 per cent during 1980-81. Slowly the other sectors picked up and the percentage coverage was 54.5, 15.7 and 29.8 in the primary, secondary and tertiary sectors during the year 1984-85.

The figures for Maharashtra State for the years 1980-81, 1981-82 and 1982-83 are presented in Table 1.1.2. The investment per beneficiary in Maharashtra is substantially higher than the average at the country level. These figures are taken from the Agenda Notes prepared by the Department of Rural Development, Government of Maharashtra for the 9th State Level Coordination Committee on IRDP/DPAP (for its meeting held on 24th May 1983).

Table 1.1.1 : IRDF Programme in the Sixth Plan

Sr. No.	Item	Targets 1980-85	Achievements				Total 1980-85	
			1980-81	1981-82	1982-83	1983-84		1984-85
1.	Total allocation (Rs. crores)	1500.00	300.66	250.55	400.88	407.36	407.36	1766.81
2.	Central allocation (Rs. crores)	750.00	127.80	153.36	204.48	207.72	207.72	901.00
3.	Central release (Rs. crores)	-	82.58	128.45	176.17	194.23	206.96	788.39
4.	Total expenditure (Rs. crores)	1500.00	158.64	264.65	359.59	406.09	472.20	1661.17
5.	Total term credit mobilised (Rs. crores)	3000.00	289.05	467.69	713.98	773.51	857.48	3101.61
6.	Total investment mobilised (Rs. crores)	4500.00	447.69	732.24	1073.57	1179.60	1329.60	7462.78
7.	Total no. of beneficiaries covered (lakhs)	150.00	27.27	27.13	34.55	36.85	39.82	165.62
8.	No. of SC/ST beneficiaries covered (lakhs)	50.00	7.81	10.01	14.06	15.37	17.38	64.63
9.	Per capita subsidy (Rs.)	1000	582	975	1041	1102	1186	1003
10.	Per capita credit (Rs.)	2000	1060	1723	2066	2099	2153	1873
11.	Per capita investment (Rs.)	3000	1642	2698	3107	3201	3339	2876
12.	Subsidy credit ratio	1:2	1:1.82	1:1.77	1:1.98	1:1.90	1:1.82	1:1.87
13.	Sectorwise coverage (%)							
	a) Primary sector	-	93.56	83.02	68.7	58.9	54.5	-
	b) Secondary sector	-	2.32	4.92	15.7	13.2	15.7	-
	c) Tertiary sector	-	4.12	12.06	15.6	27.9	29.8	-

Source : The Seventh Five Year Plan, 1985-90, Government of India, Planning Commission, New Delhi, October 1985, pp. 52-53.

Table 1.1.2 : Number of Beneficiaries Term Credit, Subsidy and Per Beneficiary, Investment in Maharashtra during 1980-81, 1981-82 and 1982-83 under IRDP

Year	Term Credit (Rs. Lakh)	Subsidy (Rs. Lakh)	No. of Benefi- ciaries	Investment per Beneficiary Rs.
1980-81	3049.16	1272.11	113409	3,811
1981-82	3183.62	1346.65	139092	3,257
1982-83	5739.61	2434.32	215474	3,794

1.2 The Plan Background to IRDP

The Integrated Rural Development Programme was for the first time started in the year 1976-77 on a pilot basis with an adhoc budget provision of Rs. 15 crores for the year. At the beginning 20 districts were selected with different socio-economic and ecological conditions from different states. The selection of the district was entrusted to the Working Group consisting of representatives from the Departments of Rural Development, Agricultural Research and Education (DARE), Science and Technology (DST), the Planning Commission and the Council of Scientific and Industrial Research. The economically backward districts having considerable development potential and which have more acute problems of rural unemployment and underemployment were to be preferred.

Action plans for the selected districts were to be prepared to achieve the objectives of the programme. Application of science and technology for optimum use of existing

local resources was envisaged in these plans. The plans were not to follow any rigid structure instead each action plan was supposed to be tailored to suit local needs, resources and priorities. By the end of the year 1976-77 the action plan for only one district was ready; the plans for the remaining 19 districts were under preparation by the Indian Council of Agricultural Research.

In the following year 1977-78 this effort was given up as it was observed that the preparation of resource inventories and action plans was a time consuming process.* There was a shift from 'planned' action to 'early action'.

However, the Annual Report for 1977-78 mentions on its page 48 that the whole scheme of IRD was under examination and that a final view was being taken about it. By this time, the Working Group to formulate the guidelines for the preparation of block plans was appointed under the chairmanship of Dr. M.L. Dantwala. The Group gave its report in 1978. Separately, the Union Department of Rural Development prepared a brochure on the methodology for planning and implementation of IRD.

Taking into consideration recommendations of the Working Group, the above brochure and experience of state governments in the preparation of block plans and also the efforts by the

* Annual Report 1977-78, Department of Rural Development, Ministry of Agriculture and Irrigation, Government of India, New Delhi, p. 46.

National Institute of Rural Development, the Ministry of Rural Reconstruction prepared Guidelines for Block Level Planning. These guidelines meant for comprehensive block plan for all sectors. In each block, a Base Line Survey was contemplated for the purpose of preparation of plan and the time horizon for this was fixed from 1981-82 to 1987-88 synchronising with the remaining two years of the State's Sixth Five Year Plan (1978-83) and full five years of the State's Seventh Five Year Plan for functional necessity. The Dantwala Group had recommended creation of peripatetic planning team at the district level to undertake the function of block level planning and it was contemplated that at the State level and State Planning Board will have an important role of providing more detailed guidelines, supervising and overseeing the preparation of the Block Level Plans and also of providing necessary orientation and training to the block planning personnel.

The comprehensive block level plan covered all aspects and to be specific six tasks were listed. One of these tasks was to formulate special programmes for the rural poor and the scheduled caste and scheduled tribe population designed to improve their economic conditions. The IRD programme and the comprehensive block plan were thus interlinked. As a matter of fact the core staff of the planning team was envisaged to be funded through IRD budget.

The Sixth Plan document was very clear in regards to block level planning as pre-requisite to IRD programme. It

stated*

"The Plan 1978-83 will be directed towards consolidating the gains of this development and substantially re-orienting the approach to one of integrated rural development focussed principally on generating fuller employment and increased productivity for small and marginal farmers, agricultural labourers, artisans and other rural poor, so as to secure an appreciable impact on their living standards. ... Towards this end, it is proposed to formulate comprehensive block level plan and identify programmes geared to full utilization of local resources both physical and human".

However, the preparation of comprehensive block plans remained on paper and what came up was IRD Block Plan. The Manual for Integrated Rural Development Programme issued by the Ministry of Rural Reconstruction in January 1980, presents in Chapter III the 'Guidelines for Block Level Planning' in which in para 3.2 it stated, 'While a comprehensive block plan will have to be prepared taking into account the objectives mentioned above, for the present, the block plan under the IRD programme may be formulated taking into account the schemes that are eligible for assistance under this programme'. Thus, this chapter is really concerned with IRD block plan. The guidelines for the comprehensive block plan are presented in this Manual in Annexure III. The IRD block plan was to be

* Draft Sixth Five Year Plan 1978-83 (Revised) Planning Commission, Government of India, p. 305.

formulated by first preparing resource inventory and carrying out household survey to identify the target families.

The preparation of IRD block plans was not satisfactory. The State Governments had prepared annual IRD block plans which according to the Ministry* did not have time perspective and that it was necessary to prepare IRD block plans for a period coinciding with the five year State and National Plans. This was the position during the first two years 1978-79 and 1979-80 of the Sixth Five Year Plan (1978-83).

Subsequently, new Sixth Five Year Plan (1980-85) came up and in this plan the IRD programme was not only continued but was extended to all the 5011 blocks in the country. This was done on 2nd October 1980. As the Manual was published in January 1980, the further developments in the planning input to IRD programme cannot be seen through the Manual.

This Sixth Plan document emphasised the need for a single district level agency for the operation of IRD programme. The document also stressed the need for integrated approach as follows:**

"The main objective of the IRD programme will be to evolve an operationally integrated strategy for the purpose, on the one hand, of increasing productivity

* Manual for Integrated Rural Development Programme, Government of India, Ministry of Rural Reconstruction, New Delhi, January 1980, p.7, para 3.10.

** Sixth Five Year Plan, 1980-85, Planning Commission, Government of India, page 170.

in agriculture and allied sectors based on better use of land, water and sunlight and on the other, of the resource and income development of vulnerable sections of the population in all the blocks in the country."

Thus, the new Sixth Plan document again looked at the IRD programme as an integrated programme and not as a programme for only the poor. The document continued the emphasis on the preparation of comprehensive block plans. However, the preparation of comprehensive block plans was diluted to the preparation of Five Year Development Profiles while specifying the operational strategies. The plan document listed nine elements of the strategy of IRD, the very first of which refers to Five Year Development Profiles.* These profiles were conceived at a district level to be disaggregated into blocks. It was thus exactly a reversal of the decentralised block level planning advocated earlier.

In a letter from Additional Secretary, M/O Rural Development, Government of India to the Secretaries In-Charge of IRD programme of all States, there is a reference to the pending decentralisation of planning process in the context of the preparation of credit plans. It stated,**

"Pending decentralisation of the planning process, for which steps are being taken by the Planning Commission

* Ibid, page 170.

** Important Circulars on Integrated Rural Development Programme, published by the Government of Maharashtra, Rural Development Department, 1982, p. 140.

separately, even a limited exercise of this nature of breaking down the various sectoral plans districtwise and putting them together in a single document would be of considerable assistance not only in the formulation of the District Credit Plans but also in the identification of infrastructure available for the effective implementation of the IRD programme."

District Credit Plans and IRD Credit Plans were being prepared as they were necessary to plan immediate actions. The follow up action in respect of Block Plans as revealed by various circulars issued show how the Block Plan has been forgotten in the process of implementation. Only the IRD Block Plan which contains the plan of utilization of allocated expenditure under IRDP for the block stayed. Thus, over a period IRDP stayed as a mere target group oriented programme and the comprehensive area planning got diluted conceptually and disappeared practically.

An Expert Group was set up by the Planning Commission in March 1981 to go into various operational issues relating to effective implementation of the programme. The recommendations were examined by the Ministry and the issues on which the action was proposed were communicated to all the State Governments.* There is no reference to Block Level Planning in this communication which was dated 19th July 1982. Even

* Ibid, p. 200.

the mid-term Appraisal Report* on the Sixth Plan did not mention anything on the Block Planning. It is thus clear from above account that the planning was visualized for the IRD programme all along but pending the preparation of plans, actions were taken.

However, the Approach Paper to the Seventh Plan again picks up the concept of decentralized planning. But, the block as the basic unit of planning is to be achieved only eventually and the beginning is to be made at the district level.**

1.3 Position in Maharashtra

The position in Maharashtra with regard to planning inputs to IRD programme was, of course, in tune with what was visualised at the Centre. However, reference to some of the circulars would give some idea as to how the planning effort was ultimately given up.

It was observed by the Government of Maharashtra that the implementation of Block Level Planning process as envisaged by the Planning Commission and the Central Government would take considerable time to materialize. Therefore, the Government of Maharashtra took a decision that, to begin with, the work of Block Plan for the year 1983-84 should be taken up on the similar lines on which the 'District Plans' were

* Sixth Five Year Plan 1980-85, Mid Term Appraisal, Government of India, Planning Commission, August 1983.

** The Approach to the Seventh Five Year Plan, 1985-90, Government of India, Planning Commission, New Delhi, July 1984, page 8.

prepared. This meant the distribution of district plan allocation to blocks within the district on the basis of criteria which were specified. This decision was taken on the 29th January 1983.* At this time the work of preparation of District Plans for the year 1983-84 was nearing completion and therefore, even this limited block planning process could not be really pursued. The Government then** decided and instructed to carry out exercises of finding out the position of block level allocations as given in the District Plan and to compare these with the allocations which would have emerged through block planning. These exercises were then to be discussed by the Sub-Committee for the Block Plan and the suggestions of reallocation between blocks were to be sent to the District Planning and Development Committee which was, in turn, to send the suggestions to the Government.

Even this did not happen. Upto 23rd August 1983, the Government issued various circulars clarifying the issues involved in the above-mentioned limited exercise which was post-District Plan 1983-84, and finally issued a circular on the 12th September 1983,*** withdrawing the whole thing. This

* GR No. BZP-1082/CR-50/PR 4-2 dt. 29-1-1983, Planning Department, Government of Maharashtra, Bombay.

** Government Circular No. BLP/1082/CR 50-A/KA-17 dt. 30-1-1983, Planning Department, Government of Maharashtra, Bombay.

*** Government Circular No. BLP 1082/CR 86/PRG 2 dt. 23-9-1983, Planning Department, Government of Maharashtra, Bombay.

circular stated that the review of the work of block planning indicated that there were difficulties faced by many districts in pursuing the above exercises. Some districts even had not appointed Sub-Committees for this purpose. Administration also needed time for the necessary preliminaries. The exercise for the year 1983-84 was, thus, given up totally. Not only this, but by the same circular it was communicated that the preparation of the Block Plan for 1984-85 should also not be taken up. It was argued that the year 1984-85 being the last year of Sixth Plan, there would not be much scope for new schemes. It was further informed that the period 1983-84 and 1984-85 was considered to be the trial period by the Government for the Block Planning. Thus, the chapter of Block Plan was closed for the Sixth Plan period as far as the Maharashtra State was concerned. Thus, there are no Block Plans in any shape whatsoever with which IRD programmes need to be integrated.

1.4 Definition of Beneficiaries

Since the IRD programme is intended to remove poverty by directly providing financial assistance for the purchase of appropriate income generating assets to the poor families in the rural areas, it is necessary to have a clear definition of an eligible family. The target groups of IRD programme are weaker sections in the rural society consisting of small farmers, marginal farmers, agricultural and non-agricultural labourers, rural artisans, small businessmen, etc., and also scheduled castes and scheduled tribes who are below the poverty

line. A family is eligible for the facilities of IRD programme only if the total income of the family from all the sources is less than Rs. 62 per head per month (as defined in the year 1978-79). Assuming average size of the rural family to be five, those families having an income from all sources less than Rs. 3,500 per annum are treated as living below the poverty line. Only such families are eligible to get the financial assistance and the related subsidy under the IRD programme.

Over the years this limit of income should be changed taking into consideration the price rise but this was not done for quite some time. The limit of Rs. 62 per head per month was used even for the surveys which were carried out after 1981-82 for the identification of poor families in the villages.

The rates of subsidy are different for different categories of beneficiaries like small farmers, marginal farmers, agricultural labourers, non-agricultural labourers and scheduled caste and scheduled tribe families. The definitions of these categories are as follows.

(i) Marginal farmer : A person with a land-holding of 2.5 acres or below is a marginal farmer. In the case of class I irrigated land, the ceiling is 1.25 acres.

(ii) Small farmer : A cultivator with a landholding of above 2.5 acres and below or equal to 5 acres is a small farmer. Where a farmer has class I irrigated land, he is

small farmer if his irrigated landholding is above 1.25 acres and below or equal to 2.5 acres.

(iii) Agricultural labourer : A person without any land but having a homestead and deriving more than 50 per cent of his income from agricultural wages is an agricultural labourer.

(iv) Non-agricultural labourer : A person whose total income from wage earning does not exceed Rs. 200 per month. Persons who derive their income partly from agriculture and partly from other sources can also be brought under this category, provided at least 50 per cent of their income is from non-agricultural sources. They need not have homestead but must be residents of the village in which they are identified.

Small farmers and marginal farmers should themselves be cultivators. Ownership for this purpose means having transferable and heritable rights over the land.

For the purpose of identification of beneficiaries the family should be taken as a unit. Persons connected by blood and marriage and normally living together should constitute a household. The income of wife and minor children should also be taken into account and added to that of the head of the family in determining the status.

The above definitions, of small farmers, marginal farmers, etc., are useful for identifying the beneficiaries but these are not sufficient criteria. As the IRD programme has its main focus on raising the families above the poverty line, the basic criterion to be used for identifying the

families is the income of the family as defined above. Such a below the poverty line family is then a small farmer, a marginal farmer, etc., as defined above. The limit of land-holding in the drought-prone areas is higher than in the other areas. The above-mentioned limits are the general limits. In Maharashtra the limits in drought prone areas are one and a half times of the above limits.

The rates of subsidy for the different categories of the beneficiaries for the individual beneficiary schemes are as follows.

Small farmers	25%
Marginal farmers	33 1/3%
Agricultural labourers	33 1/3%
Non-agricultural labourers	33 1/3%
S.T. Beneficiaries	50%
Rural Industries/Rural Artisan programme	33 1/3%

1.5 Procedure for Identification and Survey of BPL Families

To begin with the IRDP programme was introduced in selected 2000 blocks from those where special programmes like SFDA, DPAP, CAD were already in operation and in addition 300 blocks from non-special programme areas. To begin with, a detailed household survey of the families in these non-special areas was contemplated for ascertaining the economic status and the income of the families for selecting the target groups. After completing the survey the families were to be classified according to their income and to be identified as below or above

the poverty line. It was also directed that the families falling in the lower income group should be covered first for providing assistance under the IRD programme.

In other blocks where such a comprehensive survey was not contemplated, it was directed that the Growth Centres or cluster approach be adopted and the beneficiaries should be selected from a group of adjacent villages. It was suggested that the families should first be screened on the basis of landholdings and other economic indicators and before finally selecting them for assistance, an assessment be made of their income and the eligibility be verified in the village assembly. It was also suggested that the representatives of the financial institutions be associated with the process of identification itself so that their involvement is ensured from the very beginning.

There was also a suggestion that, with a view to reducing the time involved in identifying the families it would be advisable to hold camps in the villages. These camps were to be organized under the supervision of the Deputy Commissioner with the representatives of the banks, project staff, development staff, revenue staff, etc. Identification of the families to be assisted, identification of suitable economic programmes, filling up the loan application forms, etc., were to be done at such camps. This procedure of holding camps was specially suggested for those blocks where the detailed household surveys were not contemplated.

The above guidelines were given by the Central Government. As far as Maharashtra is concerned, a comprehensive household survey was conducted between April and June 1982. By this time the IRD programme was extended to all the blocks in the country and therefore this survey was conducted in all the villages in the state. The guidelines of the Central Government were followed in conducting this survey.

The basic objectives of the household survey were :

- (i) To identify families below the poverty line,
- (ii) to classify the families in terms of annual per capita income and
- (iii) to formulate production programmes for each family in consultation with the head of the household with a view to raising its income.

The survey was conducted by the Government of Maharashtra with the help of the Directorate of Economics and Statistics. The detailed instructions and proforma were prepared in Marathi and the village level workers and teachers were deployed for the purpose. There were three survey schedules, namely, (i) list of all families in the villages, (ii) detailed questionnaire for the assessment of the income of the select families and (iii) proforma to prepare a scheme for the concerned beneficiary.

The first schedule contained information on land ownership, other assets and broad estimates of income of the family from various sources. On the basis of this the families were

classified into below or above poverty line on the basis of limit of Rs. 62 per person per month from all the sources of income of the family. The second schedule which covered detailed information of the family including income accounts was to be filled in only for those families which were identified in the first schedule as families below poverty line. The third schedule was also for only those select families in whose case scheme/s was/were prepared for the upliftment of the concerned family in its consultation. On the basis of this survey, the lists of the families below the poverty line were prepared for each village and each of the identified target family was given a serial number.

The procedures for identification of families suggested by the Central Government for the areas where comprehensive surveys were not initially contemplated, were adopted in Maharashtra during the period pending the completion of survey. Thus during the year 1980-81 and 1981-82 which were the years when the IRD programme was extended to all the blocks but the survey was yet to be conducted, the identification was done by conducting camps and also by the Village Level Workers in consultation with Gram Panchayat. There was no clear information available as to whether the Gram Panchayat was systematically consulted in the matter.

1.6 District Rural Development Agency (DRDA)

District Rural Development Agencies were formed in Maharashtra for the implementation of IRD programme in accordance

with the Central Government guidelines. The DRDA was formed in Sangli in 1982-83; it started functioning from 1st April 1982. A DRDA is registered as a society under the Registration of Societies Act 1860. The Collector of the district is the Chairman of the Governing Body of the society and the Chief Executive Officer (CEO), Zilla Parishad is the Vice-Chairman. Other members of the Governing Body are drawn from the Department of Agriculture, Department of Animal Husbandry, Land Development Bank, District Cooperative Bank, Agricultural Committee of the Zilla Parishad, etc. There is one representative of the Central Government and two non-official nominees of the State Government. The Governing Body has at least one lady member and one representative each of the scheduled castes and scheduled tribes. The Governing Body has in all 16 members. The details regarding the objectives of the society, powers of the Governing Body, etc., are available on the pages 372-383 of the book containing important circulars.*

For performing the function and implementing the IRD programme a Project Officer is appointed for each DRDA who is in-charge of the implementation and is member-secretary of the DRDA society. He is assisted by Accounts Officer, three Assistant Project Officers, one each for Agriculture, Animal Husbandry and Industry, Office Superintendent and other staff. At the Block level, assisting staff, attached to the BDO office,

* Important Circulars on Integrated Rural Development Programme, published by the Government of Maharashtra, Rural Development Department, 1982.

look after the DRDA work of implementation of IRDP under the supervision of the Block Development Officer.

1.7 Procedure for Application and Sanction of Loan and Subsidy

The Village Level Worker (VLW) is the most important official at the grass root level in the IRD programme who plays the key role in motivating the beneficiary, helping him in filling in the application, forwarding the application and so on. Since the comprehensive survey was conducted in Maharashtra and the lists of the families below the poverty line (BPL families) have been prepared for each village, a copy of such a list is supposed to be kept at the Gram Panchayat and another copy with the Block Development Office. Any one who desires to avail of the IRD programme facilities must be belonging to the BPL list of the village where he resides. Therefore verification of this is the first thing to be done.

The applicant having decided to apply for a loan obtains the requisite form from the VLW who also helps him in filling the same. The application form contains information regarding the purpose and amount of loan, the broad information regarding the landholding of the applicant and other assets and the status of the applicant such as small farmer, marginal farmer, agricultural labourer, etc., and also whether the applicant belongs to a schedule caste or scheduled tribe. Along with the loan application form the following three certificates are to be submitted: (i) extract of 7/12 form from the Talathi regarding land ownership, (ii) certificate from the Village

Cooperative Society regarding membership and the loan position if any, and (iii) certificate from the Milk Cooperative Society regarding membership and loan position if any. Over and above this additional requisite certificates and quotations, etc., are to be attached to the application depending upon the purpose of loan. The VLW helps the beneficiary in completing the formalities in this respect, certifies that he belongs to the BPL list and enters his serial number in the BPL list. These BPL lists are known as 'Master Lists'. The VLW then forwards the application to the Block Development Officer.

The loan application is in fact addressed to a particular branch of a particular Bank. For the sake of convenience each branch is allotted certain number of villages for IRD implementation. The Block Development Officer, after due scrutiny, forwards the application to the concerned bank. The bank communicates its decision regarding the sanction of loan to the beneficiary directly and simultaneously sends the subsidy claim to the Block Development Officer (BDO) giving the information regarding the name of the beneficiary, his status, his serial number in the Master List as reported on the application form, purpose of loan and the amount of loan sanctioned. The BDO in turn sends the claim to the Project Officer DRDA after due verification. The subsidy claims are then sanctioned by the DRDA and the sanction orders are sent to the bank along with the cheque for the appropriate amount

with a copy of this letter to the BDO office.

After receiving the sanction letter the beneficiary has to do the needful regarding the purchase of the asset as per the procedures laid down for the various schemes. The subsidy amount received by the bank is credited to the loan account of the beneficiary directly.

Chapter Scheme

Objectives and the coverage of the study are presented in Chapter II. Methodology of the study is given in Chapter III and sampling plan and profile of the sample in Chapter IV. Chapter V covers the findings regarding procedural aspects. Chapters VI to XI present activitywise results for dairy, minor irrigation; goatkeeping, bullock cart/pair, rural artisans and the tertiary sector. Some select analyses like repayment performance, wrong identification of beneficiaries, crossing the poverty, etc., are presented in Chapter XII for all sectors together.

CHAPTER II

OBJECTIVES AND THE COVERAGE OF THE STUDY

2.1 Objectives of the Study

*
In the Mid-Term Appraisal, need for continuous monitoring has been stressed. It is mentioned in this appraisal report that a few states have carried out sample studies regarding IRDP and that a significant point had emerged that although IRDP requires that the beneficiaries should be selected from the poorest groups below the poverty line, it has so happened that in quite a few states a sizeable number of the beneficiaries selected belong to the category of small and marginal farmers. It is further stated that the reason for this is relatively better viability of small and marginal farmers from the credit angle and the preference of block officials and credit agencies for extending assistance to them. It is recommended in this appraisal report that while marginal farmers below the poverty line will rank with the poorest of the poor, small farmers should not be selected as beneficiaries at the expense of poorest groups below the poverty line. Other points that have been mentioned in this appraisal were that there were large number of vacancies at the District and Block level in the implementation set up and that the efforts are needed to get the involvement of the people's representatives at the block and village level. A massive programme of this size and type needs constant evaluation in

* Sixth Five Year Plan 1980-85, Mid-Term Appraisal, Government of India, Planning Commission, August 1983.

order to improve upon the frame work, operational and administrative set up and planning and coordination efforts so that better and better results are achieved.

The present study is aimed at covering various aspects of Integrated Rural Development Programme like planning efforts, procedures for implementation of the programme, the performance and also the economic impact on the beneficiary families. This was planned to be done by conducting a field survey of beneficiaries and by discussing the issues with various officials involved in the implementation and also by analysing the available statistical information from the records. The purpose was to examine these various aspects with a view to arriving at conclusions which might lead to policy suggestions for the improvement of the programme so that the basic objective of IRDP viz. that the target group should cross the poverty line with the help of IRDP effectively. In the light of this, the following points were to be covered.

1. Efforts made in the direction of formulating block plan and integration of household projects into this plan.
2. Maintenance of asset register, supply of Vikas Patrikas and updating of infrastructural facility cards.
3. How the proposals are mooted initially and what are the motivating forces? How are the beneficiaries, identified, located/contacted, selected initially and by whom?

4. Operational difficulties faced by the beneficiaries in preparing and getting the proposals approved.
Suggestions for improvement.
5. Reasons for rejection and delays in the sanction of the proposals.
6. Type of security.
7. Methods of subsidy adjustment.
8. Costs incurred by the beneficiary in obtaining the loan.
9. Reasons for not availing the refinance facility from NABARD by the Banks.
10. Coverage of targets.
11. Coverage of SC/ST
12. Sectorwise coverage
13. Economic and financial viability of individual projects.
14. Resource endowment and infrastructure (-adequacy of)
15. Conditions laid down for various schemes - whether they are followed.
16. Economic impact on the beneficiary family (incremental income).
17. Whether the total credit requirements of the beneficiary are taken into consideration. (Adequacy of credit facility provided for the total activity of the beneficiary family).
18. Repayment performance.
19. The extent to which family is taken as a unit for financing under the programme.

2.2 Choice of a District

By the time it was decided to take up an evaluation study of Integrated Rural Development Programme at the Institute, the Government of Maharashtra had commissioned studies covering a number of districts to various research organizations. Over and above this, some districts were also being studied by Commercial Banks. It was found that 11 of the districts of Maharashtra were not covered for evaluation studies by any agency. Of these 11, three districts, namely Sindhudurg, Jalna and Gadchiroli, are newly formed districts. The other eight districts were Jalgaon, Pune, Sangli, Solapur, Osmanabad, Yavatmal, Wardha and Nagpur. It was decided that one of these eight districts where IRDP performance is fairly good be taken up for studying the Integrated Rural Development Programme.

Data on the total amount of disbursement, number of beneficiaries and percentage of amount spent on subsidies to total outlay for the year 1982-83 was examined for these eight districts. This is presented in Table 2.2.1 below.

The three districts of Nagpur, Jalgaon and Sangli are very close the amount of disbursement being Rs. 300.90 lakh in Nagpur, Rs. 298.90 lakh in Jalgaon and Rs. 296.25 lakhs in Sangli. So, the choice was restricted to these three. The number of beneficiaries was lowest in Nagpur being 7134 families whereas, in Sangli there were 9327 families and in Jalgaon 10732 families. Between Jalgaon and Sangli the percentage of expenditure to total outlay was better in Sangli being 82.12 per cent as against 77.24 per cent in Jalgaon. Thus Sangli looked to be the

Table 2.2.1: The data on total disbursement, no. of beneficiaries and percentage of expenditure to total outlay during the year 1982-83 for the 8 districts

District	Amount of disbursement (Rs. Lakh)	Rank	No. of beneficiaries	Rank	% expenditure outlay	Rank	Rank total
1 Jalgaon	298.90	2	10732	1	77.24	7	10
2 Pune	251.34	5	8768	3	89.35	3	11
3 Sangli	296.25	3	9327	2	82.12	5	10
4 Solapur	216.76	6	7521	5	82.01	6	17
5 Osmanabad	171.14	7	2990	8	103.84	1	16
6 Yavatmal	282.00	4	8218	4	100.00	2	10
7 Wardha	151.92	8	4441	7	71.05	8	25
8 Nagpur	300.90	1	7134	6	85.88	4	11

Source: Agenda Notes for the IX State Level Coordination Committee on IRDP/DPAP, Rural Development Department, Govt. of Maharashtra, May 1983, Statement 7, Columns 35-36, Statement 9, Col.7.

best among these eight and was chosen for the study. However, by adopting some additional indicators some other district could emerge as the best. To that extent there is some element of subjectivity in the selection. The main interest here was to take up a district where the performance of IRDP was fairly good. If we rank these eight districts on these indicators and add the ranks for each district, Sangli is one of the three districts with the highest rank.

Table 2.3.1: Block-wise Data on Indicators Like Population Remity, Irrigation, etc. for Ranking the Blocks in Sangli District

Name of the block	Popu- la- tion per km	Ra- nk	% of non- agri- cul- tural workers to total workers	Ra- nk	Lite- racy per- cen- tage	Ra- nk	Annu- al rain m.m.	Ra- nk	Irri- ga- tion per- cen- tage to net crop- ped area	Ra- nk	No. of bank off- ces	Ra- nk	No.of bene- fici- aries 1980- 81 to 1982- 83	Ra- nk	Sub- sidy spent Rs. lakh	Ra- nk	Rank total
(1)	(2)*	(3)*	(4)*	(5)+	(6)+	(7)+	(8)+	(9)+	(10)+	(11)+	(12)+	(13)+	(14)+	(15)+	(16)+	(17)+	
1 Miraj	546	1	52.89	1	55.82	1	635	3	17.85	2	90	1	2477	2	19.14	3	14
2 Tasgaon	270	3	24.57	3	49.79	2	599	5	15.75	3	31	3	2129	5	19.35	2	26
3 Khanapur	164	5	17.86	8	45.87	3	542	7	5.11	7	15	4	2190	3	12.87	8	45
4 Atpadi	96	7	21.26	5	35.31	6	562	6	7.00	6	9	6	1734	8	19.00	4	48
5 Jath	85	8	17.94	7	27.91	7	528	8	7.95	5	12	5	2182	4	14.72	7	51
6 Kavathe Mahankal	137	6	19.11	6	42.02	4	610	4	11.09	4	8	8	2028	6	15.12	5	43
7 Walwa	382	2	24.28	4	17.77	8	639	2	25.64	1	38	2	4037	1	24.00	1	21
8 Shirala	205	4	24.64	2	36.85	5	862	1	4.29	8	9	7	1765	7	14.87	6	40

Sources of Data: * Census of India, Series 12, Maharashtra, Part II-B, Primary Census Abstract

+ Socio-Economic Review and District Statistical Abstract of Sangli District, Directorate of Economics and Statistics, Govt. of Maharashtra, 1979-80.

District Rural Development Agency, Pragati Pustika 18-8-1983.

2.3 Selection of Blocks

It was decided to conduct the study in two selected blocks of Sangli districts. In order to have enough diversity in the selected sample families, it was decided to select the two blocks which are as different in character as possible. In order to do this eight indicators, namely, population density, percentage of non-agriculture workers to total workers, percentage of non-agriculture workers to total workers, percentage of literacy, extent of irrigation, number of bank offices, number of beneficiaries and amount of subsidy spent during the years 1980-81, 1981-82 and 1982-83 were used. The data on each of these indicator was obtained and the eight blocks in the Sangli district were ranked on each of the indicators. The ranks of each block were then added and aggregate rank obtained. The data is presented in Table 2.3.1.

Miraj emerged as the best block but it was not chosen because it is too urbanized, it contains Sangli town as well and is quite industrialized. Miraj block has 52.89 per cent workers in non-agriculture, the next highest percentage is only 24.64 in Tasgaon; it has population density of 546 persons per sq.km., the next in rank is Walwa with only 382 persons per sq.km. thus, Miraj is a distinctly different block and in the context of IRDP it was preferred to choose the next best which was Walwa. At the lowest end was Jath. Thus Jath and Walwa were chosen for the study. As has been observed through macro level statistics under IRDP there are a large number of

beneficiaries borrowing capital for purchase of milch animals. It may be interesting and informative to compare the economic aspects of dairy business in these two blocks which differ widely on irrigation facilities and rainfall which may get reflected in the availability of fodder for milch animals.

2.4 Results of the Survey in Sangli District

In order to prepare villagewise lists of the target-group of families below the poverty line a comprehensive survey was conducted in Maharashtra State between April 1982 and June 1982. The percentage of families identified as being below poverty line to the total number of families in the state as a whole was 45 and for the district of Sangli it was 30. Blockwise position regarding the number of families identified as living below the poverty line from scheduled castes and scheduled tribes and others and their percentages to the total number of households as per the 1981 census are presented in Table 2.4.1.

The percentage of families identified as poor families at the district level is 29.76, the highest percentage of BPL families is in Tasgaon (38.39) and the next highest is in Walwa (34.20); the lowest percentage is in Shirala taluka (22.36). The percentage of BPL families in SC and ST group is very high; at the district level it is 70.64. This percentage is as high as 95.13 in Shirala taluka; even the lowest percentage in this respect i.e. 57.15 (Khanapur) is also quite high.

Table 2.4.1: No. of families identified as poor in different blocks of Sangli district

Taluka	No. of households (1981)		No. of BPL households			% BPL households	
	SC+ST	Total	SC+ST	Other	Total	SC+ST	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Miraj	6798	42889	4035	8511	12546	39.35	29.25
Tasgaon	5285	45010	4442	12836	17278	84.05	38.38
Khanapur	3522	35459	2013	6409	8422	57.15	23.75
Atapadi	1640	14815	1301	2137	3438	79.32	23.21
Jath	5392	33012	3686	5949	9635	68.36	29.18
Kawathe Mahankal	2315	17426	1850	2937	4787	79.91	27.47
Walwa	6002	43243	4057	10734	14791	67.59	34.20
Shirala	1971	25581	1875	3846	5721	95.13	22.36
Total	32925	257425	23259	53359	76618	70.64	29.76

Source: Pragati Pustika, Published by DRDA, 1983

2.5 IRDP Progress during 1980-81 and 1981-82 in Sangli

The progress of IRD programme in different blocks of the Sangli district in terms of subsidy sanctioned and spent and number of beneficiaries covered in SC/ST categories and others is presented in Tables 2.5.1 and 2.5.2. The percentage of SC and ST beneficiaries to the total beneficiaries is presented in the last column. The sanctioned subsidy was too low during the year 1980-81 and was not uniformly distributed whereas in the year 1981-82 it was uniformly 6 lakhs for each block without consideration to the number of total

Table 2.5.1: Progress of IRDP during the year 1980-81 in Sangli district

Taluka	Subsidy			No. of beneficiaries			% of SC/ST to total
	Sanctioned (Rs. lakhs)	Spent (Rs. lakhs)	% spent	SC/ST	Others	Total	
Miraj	2.41	2.22	92.12	44	136	180	24.44
Tasgaon	2.66	2.12	79.70	4	166	170	2.35
Khanapur	2.14	1.38	64.49	13	189	202	6.44
Atapadi	4.72	4.62	97.88	137	375	512	26.76
Jath	2.70	1.67	61.85	75	254	329	22.80
Kavathe Mahankal	1.78	1.77	99.44	31	144	175	17.71
Walwa	10.00	9.97	99.70	390	1472	1862	20.95
Shirala	3.22	2.68	83.23	27	206	233	11.59
Total	29.63	26.43	89.20	721	2942	3663	19.68

Source: Pragati Pustika Published by DRDA, Sangli, 1973

BPL families in these blocks. The percentage of subsidy spent to the subsidy sanctioned was 89.20 in 1980-81 at the district level while it was only 61.40 in the year 1981-82. The existing arrangements of implementation of IRD could not cope up with the increased subsidies. As a matter of fact in the year 1980-81 at the district level the amount of subsidy sanctioned was only Rs. 29.63 lakhs and was raised to Rs. 48 lakhs in 1981-82 i.e. an increase of 61.88 per cent. But the subsidy spent rose from 26.43 to only 29.47 i.e. by 11.50 per cent.

Table 2.5.2: Progress of IRDP during the year 1981-82
in Sangli district

Taluka	Subsidy			No. of beneficiaries			% of SC/ ST to total
	Sanc- tioned	Spent	% spent	SC/ST	Others	Total	
	Rs. Lakhs	Rs. Lakhs					
Miraj	6.00	4.88	81.34	232	735	937	23.99
Tasgaon	6.00	3.84	64.00	222	681	903	24.58
Khanapur	6.00	2.69	44.83	239	764	1003	23.83
Atapadi	6.00	4.34	72.33	281	296	377	21.49
Jath	6.00	2.45	40.83	151	340	491	30.75
Kavathe Mahankal	6.00	2.93	48.83	174	632	806	21.59
Walwa	6.00	5.57	92.83	228	855	1083	21.05
Shirala	6.00	2.77	46.17	180	308	488	36.89
Total	48.00	29.47	61.40	1507	4611	6118	24.63

Source: Pragati Pustika published by DRDA, Sangli, 1983

In terms of the coverage of ST/SC, in the year 1980-81 there were 19.68 per cent beneficiaries from SC/ST at the district level but the percentage varied considerably from block to block. During the year 1981-82 this coverage was 24.63 at the district level with much less variation between blocks compared to the previous year. The stipulated SC/ST coverage is 20 per cent and on that background the coverage in this district is good.

Table 2.5.3 presents the coverage of beneficiaries as per cent to total identified BPL families in the eight blocks

Table 2.5.3: No. of beneficiaries covered as per cent to identified BPL families in different blocks of Sangli district during 1980-81 and 1981-82

Taluka	No. of BPL families	No. of beneficiaries covered				
		1980-81		1981-82		Cumulative percentage for the two years
(1)	(2)	No. of beneficiaries	% to total BPL families	No. of beneficiaries	% to total BPL families	
		(3)	(4) (3+2)	(5)	(6) (5+2)	(4+6)
Miraj	12546	180	1.43	967	7.71	9.14
Tasgaon	17278	170	0.98	903	5.23	6.21
Khanapur	8422	202	2.40	1003	11.91	14.31
Atapadi	3438	512	14.89	377	10.97	25.86
Jath	9635	329	3.41	491	5.10	8.51
Kavathe Mahankal	4787	175	3.66	806	16.84	20.50
Walwa	14791	1876	12.68	1083	7.32	20.00
Shirala	5721	233	4.07	488	8.53	12.60
Total	76618	3663	4.78	6118	7.99	12.77

of Sangli district during the two years 1980-81 and 1981-82. In all 12.77 per cent BPL families are covered in the district during these two years. Maximum coverage is 25.86 per cent in Atapadi taluka; the lowest being 6.21 in Tasgaon taluka.

Sectorwise progress of IRDP in Sangli District during the years 1980-81 and 1981-82 is given in Table 2.5.4 and 2.5.5 respectively. There was no beneficiary in the tertiary sector

Table 2.5.4: Sectorwise progress of IRDP in Sangli district during the year 1980-81

(Rs. in lakhs)

Sector	No. of beneficiaries	% to total	Subsidy	Loan	Total	% to total
<u>Primary</u>						
Minor Irrigation	789	21.54	7.00	27.30	34.30	38.39
Land Development	956	26.09	2.88	-	2.88	3.22
Bullockcart/Pair	-	-	-	-	-	-
Dairy	1050	28.66	10.93	26.08	37.01	41.44
Sheep Goats	213	5.82	1.99	8.05	10.04	11.24
Poultry	-	-	-	-	-	-
Fishing	150	4.09	0.26	-	0.26	0.29
Forest	166	4.53	2.52	-	2.52	2.82
<u>Sub Total</u>	3324	90.75	25.58	61.43	87.01	97.41
<u>Secondary</u>						
Rural Artisan	339	9.25	0.58	1.74	2.32	2.59
<u>Sub Total</u>	339	9.25	0.58	1.74	2.32	2.59
<u>Tertiary</u>						
Tailoring	-	-	-	-	-	-
Provision Shop	-	-	-	-	-	-
Pan Shop	-	-	-	-	-	-
Hotel	-	-	-	-	-	-
Laundry	-	-	-	-	-	-
Cutting Saloon	-	-	-	-	-	-
Cycle Shop	-	-	-	-	-	-
Other	-	-	-	-	-	-
<u>Sub Total</u>	-	-	-	-	-	-
<u>Grand Total</u>	3663	100.00	26.16	63.17	89.33	100.00

Source: Pragati Pustika published by DRDA Sangli, (TRYSEM excluded).

during the year 1980-81 while there were only 50 beneficiaries during 1981-82. In terms of number of beneficiaries, the dairy sector was at the top in 1980-81 with 28.6 per cent

Table 2.5.5: Sectorwise progress of IRDP in Sangli district during the year 1981-82

(Rs. in lakhs)

Sector	No. of beneficiaries	% to total	Subsidy	Loan	Total	% to total
<u>Primary</u>						
Minor Irrigation	867	14.17	11.48	34.82	46.30	48.46
Land Development	2966	48.48	2.00	-	2.00	0.02
Bullockcart/Pair	-	-	-	-	-	-
Dairy	984	16.08	7.96	28.11	36.07	37.75
Sheep Goats	9	0.15	0.09	0.43	0.52	0.54
Poultry	6	0.09	0.04	0.20	0.24	0.25
Fishing	447	7.31	0.20	-	0.20	0.20
Forest	-	-	1.14	-	1.14	1.19
<u>Sub Total</u>	5279	86.29	22.91	63.56	86.47	90.50
<u>Secondary</u>						
Rural Artisan	789	12.89	2.10	6.32	8.42	8.81
<u>Sub Total</u>	789	12.89	2.10	6.32	8.42	8.81
<u>Tertiary</u>						
Tailoring	-	-	-	-	-	-
Provision Shop	-	-	-	-	-	-
Pan Shop	-	-	-	-	-	-
Hotel	-	-	-	-	-	-
Laundry	-	-	-	-	-	-
Cutting Saloon	-	-	-	-	-	-
Cycle Shop	-	-	-	-	-	-
Other	50	0.82	0.20	0.46	0.66	0.69
<u>Sub Total</u>	50	0.82	0.20	0.46	0.66	0.69
<u>Grand Total</u>	6118	100.00	25.21	70.34	95.54	100.00

Source: Fragati Pustika, published by DRDA, Sangli,
(* TRYSEM excluded).

beneficiaries whereas land development sector was at the top during the year 1981-82 with 48.48 per cent beneficiaries.

Table 2.5.6: Sectorwise progress of IRDP in Sangli district during the year 1982-83

(Rs. in Lakhs)

Sector	No. of beneficiaries	% to total	Subsidy	Loan	Total	% to total
<u>Primary</u>						
Minor Irrigation	1184	13.52	20.78	94.97	115.75	33.75
Land Development	32	0.36	0.20	0.96	1.16	0.34
Bullockcart/Pair	115	1.31	0.53	4.25	4.78	1.39
Dairy	4259	48.62	35.31	111.60	146.91	42.84
Sheep and Goats	910	10.38	7.14	21.01	28.15	8.22
Poultry	23	0.26	0.22	0.81	1.03	0.30
Fishing	23	0.26	0.13	0.32	0.45	0.13
Forest	-	-	-	-	-	-
<u>Sub total</u>	6546	74.72	64.31	233.92	298.23	86.96
<u>Secondary</u>						
Rural Artisan	1192	13.60	3.01	12.62	15.63	4.56
<u>Sub total</u>	1192	13.60	3.01	12.62	15.63	4.56
<u>Tertiary</u>						
Tailoring	286	3.27	1.17	4.27	5.44	1.58
Provision Shop	162	1.86	1.13	5.39	6.52	1.90
Pan Shop	41	0.46	0.18	0.86	1.04	0.31
Hotel	75	0.85	0.39	2.15	2.54	0.74
Laundry	4	0.04	0.04	0.18	0.22	0.06
Cutting Saloon	8	0.09	0.11	0.34	0.45	0.13
Cycle Shop	104	1.18	1.39	4.84	6.23	1.82
Other	343	3.93	1.20	5.42	6.62	1.93
<u>Sub total</u>	1023	11.68	5.61	23.45	29.06	8.47
<u>Grand Total</u>	8761	100.00	72.93	269.99	342.92	100.00

During the year 1980-81, 41.44 per cent of the total investment was in dairy and 38.39 per cent was in minor irrigation. These are also the most important sectors during the year 1981-82 although with relative positions changed. Percentage of investment in minor irrigation was 48.46 and that in the dairy was 37.75. Thus during 1980-81, 79.83 per cent investment was in these two sectors and this percentage was 86.21 in the next year. Investment in the secondary sector increased to 8.81 per cent in 1981-82 from 2.59 per cent in 1980-81.

CHAPTER III

METHODOLOGY

As mentioned earlier, the collection of information for the study was to be done from office records and also by conducting a field survey. In this chapter, we give in brief information regarding the reference period for sampling, structure of questionnaire, approach to study the impact of IRDP, operational definitions of various terms used and the methods of computation. Sampling plan and the details of the actual sample are presented in the next chapter.

3.1 Selection of the Year for Drawing Sample

The IRD programme was launched in the year 1978-79 in 2300 blocks in the country and was extended to all the blocks in the year 1980. However, the District Rural Development Agencies were formed quite late; in Maharashtra they were formed in the year 1982. Till the formation of DRDA the IRD programme was being operated by the SFDA, DPAP authorities where these programmes were in operation. When the DRDA's were formed these special programme offices were merged with them. In the other areas, the programme was being operated by the Collectorate and various sectoral programmes were managed through respective officers like Agricultural Extension Officer, Animal Husbandry Officer, Soil Conservation Officer, etc. The applications were being forwarded by the Block Development Officer but were operated through these officers. There was no one place where the records could not therefore be seen at any single

office. There were no systematic procedures for keeping centralised records. Therefore, to obtain the lists of beneficiaries during the period 1978-79 to 1981-82 was a tedious job. In this connection the District Planning Officer at Sangli was also contacted. He confirmed the above position and advised that it would take considerable amount of time to build up appropriate lists for any one of these years by contacting these Agricultural Extension Officer, Soil Conservation Officer and so on. It was also reported that the records pertaining to these years were deposited with the DRDA office. At the DRDA office it was told that as the entire staff was busy in the year-end work, they could not help us in giving old records.

The Project Officer, DRDA, Sangli reported in his letter to us that the lists of the beneficiaries of the year 1980-81 and 1981-82 were not readily available because before 1982-83, there were various officers implementing the programme. Thus, it was going to be a very time consuming job to prepare the lists of the beneficiaries for any one year prior to 1982-83. Though, initially it was decided to get a sample of beneficiaries in the earlier years so that the information regarding the DRDP supported activities could be obtained for a long enough period to draw more useful inferences, it could not be done for the above mentioned reasons.

It was, therefore, decided to obtain the lists of the beneficiaries for the year 1982-83 for the two selected blocks and take the sample from these beneficiaries. The sample of

beneficiaries in the year 1982-83 was the main sample to carry out the economic analysis.

Technically any beneficiary who has been paid subsidy during the year 1982-83 is counted and listed as a beneficiary in that year. The following three types of situations are possible : (i) The beneficiary received a loan as well as subsidy during the year 1982-83, (ii) The beneficiary received a loan late during the year 1981-82 and subsidy claim was sanctioned during the year 1982-83, (iii) The loan was received in instalments and therefore he was sanctioned loan earlier than in 1982-83 but has received some instalments and subsidy during the year 1982-83. The third situation mainly occurred in minor irrigation. During the field work fourth situation was found out that there were a number of beneficiaries in the secondary sector who were given some cash credit facilities under KVIC schemes much earlier but were given benefit of IRDP subsidy during the year 1982-83. This is discussed at length in chapters IV and X.

In order to study certain procedural aspects like time required for processing the applications, for crediting the subsidies, reasons for rejecting the applications, etc., it was decided that the proposals of the year 1983-84 be studied so that more upto-date picture in this respect would be available. For this purpose, we selected two bank branches which received a good number of applications during the year 1983-84 from the villages we visited.

It was also thought useful to interview some villagers who are listed in the 'Master List' but who did not take any

loan through IRDP. This was important in order to understand certain aspects like the reasons as to why these people did not avail of the facilities of the scheme though they belonged to the target group, whether they applied but did not get the assistance, whether they were aware of the scheme at all or not, and the like. It was decided that about 5-6 such non-beneficiaries be interviewed in each sample village to get a sample of about 60 to 70 cases.

Control Group

It is necessary to specify right at the outset that the control group approach was not used for the study. Firstly, it does not become operative to obtain proper matched control groups and secondly, the generation of income for each family and improvement in its living conditions is of importance rather than a group level performance. For such a situation, comparing the conditions of the beneficiary families before and after the assistance is more useful and meaningful than comparing a group of beneficiaries with a group of non-beneficiaries. Even this task is not simple but efforts are to be made to obtain a measure of change in income due to IRDP assistance by adopting the best possible methods. Having arrived at the individual level impact, one may talk in terms of impact at a group level. Thus, the approach of finding out incremental income obtained by each of the sample beneficiary families was adopted for the study.

3.2 Reference Period

If we adopt the direct method to get the income of the

family before the IRDP loan was taken and after to arrive at the incremental income than the data for at least a year before and a year after the loan was taken would become necessary which would involve collective data pertaining to the period more than three years in the past. Getting reliable data for field surveys is in itself difficult and it is more so if one plans for such old data. There are also issues like good or bad harvest, changes in other conditions during the two periods due to other development activities and other factors which make it difficult to compare incomes of the two periods prior to IRDP and after IRDP. Hence we planned to break the income of the family into two parts namely incremental income due to IRDP support and the remaining income from the data of the same period.

Therefore, we planned to collect the data for the year 1983-84 for all the activities of the family and as far the IRDP supported activity is concerned for the period since the IRDP loan was received till the date of enquiry. The period of reference for the IRDP activity was broken into three parts namely, (i) from the date of purchase of asset till 31st March 1983, (ii) year 1983-84 and (iii) from 1st April 1984 to the date of enquiry. The data was collected with reference to these three periods for all the activities excepting dairy animals and minor irrigation. In the case of dairy animals the full reference period since the purchase of animals till the date of enquiry was covered but it was not broken down into three periods as above. The information was collected

for each calving period separately. Naturally it was collected for each animal separately.

In the case of minor irrigation, we depended upon the data for the agricultural year 1983-84. This was necessary because, in agriculture, it is easier to obtain the information for the full year's activity or season's activity rather than the above type of period (i) or period (iii). The full account of agricultural activity during the year 1983-84 was taken. Of course, for each case, we have collected the information on cropping pattern for the entire period from the date of availability of water till the date of enquiry and the cropping pattern for the whole year preceding the date of availability of water from the source created under IRDP assistance. This was necessary to find out changes in cropping pattern due to IRDP and then the incremental income.

3.3 Structure of the Questionnaire

Though the major interest is to find out the impact of IRDP assistance on the beneficiary family, it is necessary to collect the data on all the economic activities of the family in order to obtain a total view and also in order to facilitate collection of more accurate and consistent data. It is also necessary that the background information on a number of items like number of members in the family, their educational level, age, occupation, etc., land holding, animal holding of the family and so on to facilitate proper economic analysis of data. Therefore, it was decided to prepare the questionnaire in two

parts, Part I containing general information and accounts of all the economic activities of the beneficiary excepting IRDP assisted activity which was covered in the second part and Part II containing the information regarding the amount and data of borrowing, purpose of borrowing, repayment arrangement and performance and so on and income and expenditure account of IRDP assisted economic activity. It was planned to have a complete account of income of the family from all sources during the year 1983-84 from non-IRDP activities (Part I of the questionnaire). The reference period for IRDP supported activity is discussed above.

As explained earlier the reference period followed for the IRDP assisted minor irrigation was the agricultural year 1983-84. Therefore, the income and expenditure accounts of the crops irrigated with the help of sources created through IRDP assistance were also recorded in the Part I of questionnaire along with accounts for the other crops which are also for the year 1983-84. It also facilitates the data collection on income and expenditure on agriculture at one place. The accounts are taken separately for each crop : irrigated-unirrigated, rabi-kharif so as to facilitate separation of incomes properly.

For the Part II of the questionnaire where IRDP assisted activity is reported, a number of questionnaires were prepared because different sets of questions are relevant for different activities. Ten different sets were prepared one each for minor irrigation, dairy, sheep and goat, bullock cart/pair in the primary sector, for rural artisans in the

secondary sector and for tailoring, kirana (provision) shop, hotel, cycle shops and vendors in tertiary sector.

For each beneficiary in this main sample the information regarding the repayment due, repayment made, interest paid, etc., was obtained from the corresponding bank offices.

3.4 Method of Analysis and Operational Definitions

As the data for IRDP activity was collected for the period since the loan was taken till the date of interview, the computation of the incremental income, retainable income, etc., for this activity period were carried out for each beneficiary separately and then the monthly averages were worked out at the individual level. The information on repayment made, repayment due, interest paid, etc., was collected from bank records which was also used for these computations for the activity period. In the case of minor irrigation, this was done for the agricultural year 1983-84. Another line of analysis was to find out the position of each family with regard to poverty line for which the reference period considered was the agricultural year 1983-84. Before we go into the detailed definitions and method of analysis a few lines on prices would be relevant.

Prices: The data was collected in the current prices. As mentioned above the reference period for IRDP activities covered full year 1983-84 and some months during the year 1982-83 on one side and some months during the year 1984-85 on the other side. If we consider the constant prices of the year

1983-84, then the data for the period (i) need to be inflated and the data for the period (iii) need to be deflated. In both these periods only some months are relevant and therefore for practical purposes the data could be considered to be in the prices of 1983-84. Therefore, the inflation or deflation by using price indices was not carried out. However, an exception to this was made in the cases of bullock carts as the activity period was considerably long.

Incremental Income

In order to examine the economic impact of IRDP programme on the beneficiary families, it is necessary to find out the net addition to the family income due to IRDP support. This additional income is referred to as Incremental Income.. The method of computing the incremental income has to be decided upon on the basis of the nature of the activity. Other important factor in the computation is whether the beneficiary family has been engaged in the particular activity prior to taking IRDP loan or it has entered it only afterwards. The computations in the latter case are comparatively simpler than in the former case. In the former case the estimation of growth due to IRDP investment need to be done whereas in the latter case entire net income from the activity is incremental. Of course, in this case allowance has to be made for the income forgone due to entering the new activity. Such allowance may also be necessary in some cases of expansion of the existing activity. This has to be carefully looked into for each case.

The approach for computations of income and the methods of computing incremental income are presented in the respective sections on each activity. The general framework is presented below.

Let us first consider the net income of the family during the reference period broken into two components, namely, net income obtained by the family as a result of IRDP, investment and the other part of the income. Let us put this down in symbols for convenience. (They refer to a given period).

Let A = Net income of the family from all sources.

B = Net income of the family accrued due to IRDP investment (this we shall call net incremental income due to IRDP).

C = Net income of the family from all sources except B above.

Then $A = B + C$ (1)

From the field data any two quantities, A , B or C may be estimated, then from the equation (1) above the third quantity can be obtained. Let us look at B more carefully and for that let us also introduce additional symbols.

Let Y = Interest paid during the period under consideration on the IRDP loan.

Then we propose to call $(B+Y)$ as gross incremental income (GII) due to IRDP so that when the interest paid is deducted from the gross incremental income we get net incremental income (NII) due to IRDP. That means $GII - Y = NII = B$ (2)

The need for this would be clear shortly. Consider a beneficiary who was engaged in, say, hotel business and took

loan for improving his business. In order to arrive at the impact of IRDP, it is necessary to estimate, the growth in his business turnover as a result of IRDP investment. Suppose, on the basis of the information collected it can be said that his business had growth of $100r$ per cent.

Let x = Net income from his hotel business without deducting the interest paid during the period under consideration.

Then rx could be taken as his incremental income due to IRDP (before deducting interest) and $(1-r)x$ would be his other income.

With this his net income for the period would be equal to

$$(rx - y) + (1-r)x$$

in which the interest is deducted. This was our A above.

Therefore,

$$A = (rx - y) + (1 - r)x \quad \dots\dots(3)$$

or $A = x - y \quad \dots\dots(4)$

and $B = rx - y \quad \dots\dots(5)$

$$C = (1 - r)x \quad \dots\dots(6)$$

Let $rx = z \quad \dots\dots(7)$

The need for putting it this way arises because we may be able to calculate z directly in some cases and in some cases we may have to estimate r and obtain z as a product of r and x . Let us consider the dairy activity. In this case a separate account was recorded for the animals purchased under IRDP and hence z can be directly estimated, y is recorded and hence B can be estimated. From the account of the other activities including the non-IRDP dairy activity, income C of this

beneficiary can be obtained so that A can be calculated by adding B and C. The same procedure can be used for other activities for those beneficiaries who entered the activity only by taking the IRDP loan. In the case of minor irrigation also z is estimated directly and B is obtained by subtracting y from z; but in this case x and therefore A is estimated directly and C is obtained by (A-B). In the remaining cases the computation through r is called for as explained in the case of a hotel owner above.

Retainable Income

The net incremental income defined above does not take into consideration the depreciation on the assets and in order to get the realistic picture this needs to be done. We have not gone into the computations of depreciation directly but have used the instalment payment for this purpose. Thus, if we subtract the instalment payable from the gross incremental income defined above we will get the incremental income adjusted for interest and depreciation both. This we have called retainable income.

Let θ = Amount of instalments payable during the period under consideration.

Then, retainable income = $(z - \theta)$ or $(rx - \theta)$. The retainable income also gives us as to how much the beneficiary is able to have for himself after the loan repayment.

For the analysis corresponding to the entire activity period, we were primarily interested in net incremental income and retainable income. Other quantities were computed for this reference period only if they were needed to arrive at these two.

At the individual beneficiary level any one of the variables discussed above can be reduced to per month by dividing by months contained in the reference period. Computations at the group level are slightly complicated. The concept of 'activity months' is quite useful.

Activity months: As mentioned earlier we had taken the account of the beneficiaries activity since the date of starting till the date of enquiry. This results into the different lengths of the reference period for different beneficiaries. The length of the period in months for each beneficiary is called 'activity months' for the concerned beneficiary. The total of these activity months at the group level is called 'total activity months' for the group.

On computing group level averages

Consider any one of the incomes defined above. For an individual beneficiary average monthly income is obtained by dividing the income during the entire period by the activity months. While obtaining average monthly income per beneficiary at the group level for any activity, the income of all the beneficiaries for the entire period is added which gives total income of the group, and then this total is divided by the total activity months. Once this is done, it is clear that the varying periods of activity are taken care of appropriately.

In the languages of weighted averages this can be explained as follows. Let us denote by y_i , the income per month of the i^{th} beneficiary and by m_i the activity months for

this beneficiary, then for a group of n such beneficiaries the average income per month is given by

$$\frac{\sum_i m_i y_i}{\sum_i m_i} \quad i = 1, \dots, n$$

It may be noted here that for a beneficiary $m_i y_i$, that is the total income during the reference period is calculated first and then by dividing by m_i , y_i is computed. As a matter of fact, therefore operationally weighted sum in the numerator is already available. This approach is quite general and is applicable for the various types of incomes defined like net income, net incremental income-1, net incremental income-2 and so on. Even for other averages, if any, this weighted approach is followed, for example average milk yield per month.

For dairy cattle

It may be mentioned here that as far as the dairy activity is concerned, it is of interest to compute some average at the animal level. Therefore, it is necessary to distinguish between average per beneficiary and average per animal. We have therefore defined 'animal month'. The total period (in months) the animal was with the beneficiary is called 'animal months'. If a beneficiary has one animal the activity months and animal months would tally. If the beneficiary has more than one animal, animal months for each animal would be taken into consideration for counting the animal months. In such a case the activity months would be equal to

$$\frac{\text{total animal months}}{\text{no. of animals}}$$

This would be straight forward if the animals were simultaneously held for the same period. In other cases also this is a meaningful calculation to arrive at activity months from the animal months. Though there were only four beneficiaries with 2 animals each, this distinction between animal months and activity months was necessary.

Incremental Capital Output Ratio (ICOR)

Incremental Capital Output Ratio for an activity at the group level was defined as follows:

$$\text{ICOR} = \frac{\text{Average IRDP investment per beneficiary}}{\text{Average retainable income per beneficiary per year due to IRDP activity.}}$$

3.5 Crossing the Poverty Line; Wrong Identification of the Beneficiaries

Only those families who are below poverty line are eligible for the IRDP schemes and therefore most of the studies on IRDP have focussed on the extent of wrong identification of the beneficiaries and as the schemes are aimed at bringing these families above the poverty line, these studies also have focussed on finding out as to how many families have crossed the poverty line. We also have looked into this aspect. There are a number of complications involved in this analysis and we present below the methodology adopted by us for the purpose. To begin with a discussion on the definition of poverty line is useful.

Chapter II of the Manual on Integrated Rural Development Programme* gives the definition of beneficiary and procedure for identification. In this, the definitions of marginal farmer (MF), small farmer (SF), agricultural labourer (AL), etc., are given. However, the major criterion chosen for IRDP was income of the family. The following paragraph quoted from the above manual makes the position clear in this regard.

The definitions of the target groups given above may be used for identifying the beneficiaries for assistance under the IRD programme. These definitions are however, only working definitions and should be used for the purpose of preparing a list of beneficiaries which should be further scrutinised by holding detailed enquiry regarding his income. Screening of this list of beneficiaries would be necessary to identify the families living below the poverty line and draw suitable economic programmes for raising these families above the poverty line. As the IRD Programme has its main focus on raising families above the poverty line, the basic criterion to be used for identification these families should be the income of the family. For the purpose of identifying a family below the poverty line, an income of Rs. 62 per head per month may be adopted. On an average, a rural family may have five members and thus those families having an income from all sources of less than Rs. 3500 per annum may be treated as living below the poverty line.

It is clear from the above that the rural family with income less than Rs. 3500 is eligible for IRDP facilities and depending upon its land holding and occupation it is classified as MF, SF, AL, Rural Artisan, etc. The above manual was brought out in January 1980. As stated earlier in the chapter on methodology of this report, we have taken this limit of Rs. 3500

* Manual on Integrated Rural Development Programme. Government of India, Ministry of Rural Reconstruction, New Delhi, January 1980, para 2.7, page 4.

at 1979-80 prices. As is mentioned in the above quoted paragraph from the manual, a detailed survey was to be carried out for the identification of BPL families. Such a survey was conducted in Maharashtra in the year 1982-83. However, since 1979-80 till this survey all the letters and circulars issued by the Government mention the same limit of Rs. 3500 and there was no effort to correct this figure for inflation. Therefore, the cut off point for Maharashtra survey was also Rs. 3500.

For our analysis we decided to adjust this definition for inflation. For this, we have used Labour Bureau's Series of Consumer Price Index Numbers for Agricultural Labourers (General Index) for Maharashtra. On the basis of this the level of Rs. 4921 in 1983-84 is equivalent to the level of Rs. 3500 in 1979-80.

In this connection it is also important to note that the limit of Rs. 3500 set, was for an average rural family of 5 members and that the poverty line at family level needs to be fixed in relation to the family size. In the instructions issued for the BPL survey, this was clearly indicated. For our analysis we have considered this aspect and for each family we have fixed the poverty line on the basis of its size and by taking into consideration the price rise.

There are a number of issues involved in saying whether the beneficiary families were correctly identified or not. For such studies it is not possible to collect the income data for the year during which they were identified as being below poverty line. It is also not easy to estimate past income on

the basis of the recent data collected. We have, therefore, adopted a method where we considered the income of the family during the year 1983-84. As explained in the previous Section 3.4, we break the income A into components B and C. The discussions in the previous section were for the activity period. For this exercise we take into consideration the agricultural year 1983-84 for analysis. We shall for the present purpose refer to the components B and C as follows and also define some more components for the year 1983-84.

A = Net income of the family from all sources

B = Net incremental income due to IRDP

C = Income without IRDP

D = Retainable income due to IRDP
= (z - θ)

E = Income with IRDP
= (C + D)

Income C of the family during the year 1983-84 without IRDP is compared with the poverty line of the family. If its income C is above the poverty line we say that he did not deserve the IRDP benefits and is a case of wrong identification and call it a family above poverty line (APL). If the income C is below the poverty line we call it a BPL family.

With this approach we have classified the families and commented upon wrong identification in respective sectorwise chapters. This approach, of course, has some limitation but this would be a much more meaningful exercise than estimating the past position. Thus, on the basis of C and the poverty

line which was fixed on the basis of family size, we identified the sample beneficiaries as BPL or APL.

A family improves its income from C to E by amount of D which is retainable income due to IRDP. In the process a BPL family may become APL; then we say it has crossed the poverty line. For each sector we carried out this analysis and found out as to how many beneficiary families have crossed the poverty line.

If the instalment amount payable θ is more than the gross incremental income z then the retainable income ($DC = z - \theta$) would be negative and the family would be worse off due to IRDP. In some such cases APL family may become BPL.

CHAPTER IV
SAMPLING PLAN AND PROFILE
OF THE SAMPLE

4.1 Sampling Plan

As stated in earlier chapter the study also included primary data collection from the beneficiaries of IRDP programme. In order to prepare a sampling design and to draw appropriate sample, the lists of beneficiaries were copied from the records available at the BDO offices of the two blocks. In order to complete the work of copying these lists in shorter time, the names of the beneficiaries were not recorded but the information like Sr. No., Village, Category of borrower like marginal farmer, small farmer, agricultural labour, rural artisan, non-agricultural labourer; purpose of loan, amount of loan and subsidy, name of the bank, whether SC/ST was collected. The beneficiaries could be sampled on the basis of this information and then using the serial number, their names could be identified. The above information regarding the beneficiaries in the two blocks was entered on computer for further processing and tabulation.

The distribution of beneficiaries in each taluka was obtained from this data. This is presented in Table 4.1.1 below.

We had also requested the DRDA office to supply us with the categorywise distribution of IRDP beneficiaries in these two talukas. The data received from DRDA office is presented in Table 4.1.2.

Table 4.1.1 : Distribution of beneficiaries according to category of economic activity for the Jath and Walwa Talukas as per the data from the Block Development Office (1982-83)

Sector	Number of beneficiaries		Percentage of total	
	Jath	Walwa	Jath	Walwa
1	2	3	4	5
I. Primary				
Minor Irrigation	213	16	15.60	1.87
Land Development	10	-	0.73	-
Bullock Cart/Bullock Pair	23	45	1.68	5.27
Dairy	368	622	26.94	72.84
Sheep and Goats	223	9	16.33	1.05
Poultry	-	-	-	-
Fisheries	-	9	-	1.05
Forestry	-	-	-	-
II. Secondary				
Rural Artisans	338	111	24.75	13.00
III. Tertiary				
Tailoring	47	7	3.44	0.82
Provision Shop	32	11	2.34	1.29
Pan-Shop	4	-	0.29	-
Hotel	16	2	1.17	0.23
Laundry	1	-	0.07	-
Cutting Saloon	1	-	0.07	-
Cycle Shop	26	4	1.90	0.47
Others	64	18	4.69	2.11
Total	1366	854	100.00	100.00

In the case of Jath taluka, we got the list of the same number of beneficiaries as reported in the data from DRDA but in the case of Walwa, there is a big gap. We have got the list of only 854 whereas the DRDA reported the number of

Table 4.1.2 : Distribution of Beneficiaries according to category of economic activity for the Jath and Walwa Talukas as per the DRDA Office (1982-83)

Sector	Number of beneficiaries		Percentage of total	
	Jath	Walwa	Jath	Walwa
1	2	3	4	5
I. Primary				
Minor Irrigation	210	56	15.42	5.12
Land Development	8	-	0.59	-
Bullock Cart/Bullock Pair	24	2	1.76	0.18
Dairy	373	759	27.39	69.38
Sheep and Goat	210	19	15.42	1.74
Poultry	2	-	0.15	-
Fisheries	-	9	-	0.82
Forestry	-	-	-	-
II. Secondary				
Rural Artisans	360	203	26.44	18.55
III. Tertiary				
Tailoring	46	7	3.38	0.64
Provision Shop	36	12	2.64	1.10
Par-Shop	4	-	0.29	-
Hotel	16	1	1.17	0.09
Laundry	-	1	-	0.09
Cutting Saloon	1	-	0.07	-
Cycle Shop	24	5	1.76	0.46
Others	48	20	3.52	1.83
Total	1362	1094	100.00	100.00

beneficiaries to be 1094. The difference of 240. It was necessary to sort out this problem but in order to keep to the field work schedule, the verification of this was postponed till we went for the field-work in the Walwa taluka.

However, it was necessary to prepare a sampling frame. A major difference in frequencies has been in the categories of milch animals, rural artisans and minor irrigation. It was decided to draw the sample for both the talukas on the basis of the lists collected from the BDO Offices and in the case of Walwa make amendments depending upon the verification of the frequencies.

It can be seen that the important categories are minor irrigation, dairy, sheep and goats and rural artisans in Jath taluka and minor irrigation, dairy and rural artisans in the case of Walwa. Under rural artisans there are a number of activities. On the basis of the data collected from the BDO offices, the frequencies of the beneficiaries according to their activities like leather works, carpentry, blacksmithy, pottery, brick-making, etc., are obtained for each taluka and presented in the following Table 4.1.3. There are a large number of cobblers who have taken the benefit of IRDP in Jath taluka. Other major categories are carpenters and rope makers.

It was decided that from the major categories a sample of about 30-35 beneficiaries be taken from each of the two talukas. Thus we decided that from Jath about 30-35 cases from each category of minor irrigation, dairy animals, sheep and goat and rural artisans and that from Walwa same number of cases of dairy animal and rural artisans be taken. It was decided that about 40 cases of tertiary activity be included from two talukas together. There were only 16 cases of minor irrigation in

Table 4.1.3 : Distribution of rural artisans beneficiaries according to profession (based on the data from Block Development Offices)

Profession	No. of beneficiaries		Percentage to total	
	Jath	Walwa	Jath	Walwa
1	2	3	4	5
Leather Work	111	29	32.84	28.16
Carpentry	70	6	20.71	5.83
Rope Making	76	45	22.49	43.69
Pottery	10	17	2.96	16.50
Black Smithy	14	4	4.14	3.88
Basket Making	24	-	7.10	-
Weaving	26	-	7.69	-
Wool Work	7	-	2.07	-
Others	-	2	-	1.94
Total	338	103	100.00	100.00

Walwa taluka as per the B.D.O. records whereas as per DRDA records there were 56 cases. It was decided that if the list of these 56 cases is available about 20 cases may be taken in the sample.

This was how, it was planned in terms of frequencies under each category. Operationally the sampling was done as follows. On the basis of the data collected from the B.D.O. Offices, frequencies of beneficiaries in each village were obtained and ten villages with maximum frequency in each of

the taluka were found out. The ten villages were arranged in order of the number of beneficiaries and then every alternate village was taken in the sample. For alternate choice, one can begin with the first or the second village. Here, it was decided by tossing a coin. Thus five villages were chosen from Jath and Walwa talukas each. Sectorwise frequencies of beneficiaries from these villages were obtained. In some categories we had more than the required number and certain categories less than required. In the former case sampling fraction was applied and in the latter case supplementary sample from other villages was taken.

As mentioned in the above paragraphs, it was necessary to sort out the differences in the frequencies between the data from DRDA Office and the data collected from the BDO Office in the case of Walwa taluka. This was done before the field work in this taluka was begun. We have spent 3-4 days at the BDO Office for this purpose. It was found that there were some subsidy sanction orders in respect of which the names of the beneficiaries were not entered in the register, there were some orders which were partially entered and there were some entries which were made after we had collected the information. The operation of entering the names of beneficiaries in the registers maintained in the BDO Office was not up-to-date. The work being in the nature of information bank, was not accurate and was also assigned to different people due to lack of staff. The major difference was in the three categories of

beneficiaries, namely minor irrigation, dairy and rural artisans. We could find 40 beneficiaries of minor irrigation through this search, making the total 56 which exactly tallies with DRDA data. In the case of rural artisans, we have found one subsidy sanction order containing 186 names of which only 90 were entered in the register. This gave us additional frequency of 96 in this category making the total of $(111+96=)$ 207 whereas the DRDA frequency was 203. For the dairy category, we found additional 172 cases making the total of dairy cases equal to $(622+172=)$ 794 which was more than the DRDA figure of 759 cases. Thus, the main issue that we had got 240 cases short at BDO office was sorted out. Now, the frequencies at the BDO office were slightly bigger but this was ignored. Thus, the total frequency became equal to $(854+40+96+172=)$ 1162 as against the DRDA total of 1094.

At this stage we also examined the relative position of top 10 villages after including the cases in respective village account and we found that the sample villages selected earlier still belonged to this top 10 category and therefore we continued with our sampling plan. The only modification, as was indicated earlier, done was that a sample of 20 from minor irrigation category was included from Walwa taluka. For this purpose two villages, namely, Ashta and Walwa were included in the sample. Of the 49 cases, of minor irrigation, Ashta had 14 and Walwa 8 whereas the remaining 27 cases were scattered over 19 villages and therefore these two villages were included in the sample.

4.2 Actual Sample

The frequencies of beneficiaries in the sample villages were slightly different than were expected before visiting each village on the basis of records collected from the Block Development Offices for the reasons like (i) wrong recording of the sectors (ii) recording the names of beneficiaries of the previous year in the list of 1982-83, (iii) beneficiary leaving the village (iv) loan sanctioned but not taken by the beneficiaries and so on. The cases of these type were small in number except in the village Sankh (Jath taluka) where ten cases actually of 'dairy animal' were recorded as cases of 'sheep and goat'. These were left out from the survey because we had already sufficient number of cases of dairy cattle. These were, therefore, replaced by other cases of 'sheep and goat' from other village, namely Belondgi.

Finally, there were seven villages in the sample from Jath and eight villages from Walwa taluka. There were 341 beneficiary families for whom the questionnaires were filled in. Of these, there were twelve families who had availed of the IRDP facilities twice each making the total number of cases equal to 353. There were two families who jointly took loan for a new well. Strictly speaking, therefore, there were $(353-1=)$ 352 cases. For convenience, we have treated these two families as two cases, of course, the amount of loan, subsidy, repayment, etc., were properly divided. Thus there are 353 cases and 341 families. The distribution of these 353 cases and

according to the sectors is presented in Table 4.2.1. The village and sectorwise distribution is presented in Tables 4.2.2 and 4.2.3. The distribution of 353 beneficiary cases according to the lending banks is presented in Table 4.2.4.

4.3 Profile of Sample Beneficiaries

As stated above there were 341 families in the sample spread over 15 villages; 7 in Jath taluka and 8 in Walwa taluka. The map presented in the previous section shows how these sample villages are widely spread. The east border of Jath is also Maharashtra-Karnataka border, therefore, many of the beneficiaries were Kannada speaking in this taluka though most of them understood Marathi. In some cases it became necessary to take help of other villagers at the time of interview. The villages in Jath were not as well connected by bus routes as the villages in Walwa.

SC/ST Families

The sample consisted of sizable number of beneficiary families from this category. There were 76 scheduled caste families in the sample of Jath and 51 in the sample of Walwa. The number of scheduled tribe families was only 5 in Jath and 3 in Walwa. Considering two talukas together 37.24 per cent families were scheduled caste and 2.35 scheduled tribes. The distribution of sample beneficiary families in this respect is presented in Table 4.3.1.

Size of Family

Average size of the sample families works out to be 4.87 persons. The maximum number of members were 9 in two families

Table 4.2.1 : Distribution of sample beneficiaries according to sectors

Sector code	Sectors	Number of beneficiaries		Total
		Jath	Walwa	

Primary				
11	Minor irrigation	35	21	56
13	Bullock cart/pair	6	12	18
14	Dairy	43	39	82
15	Sheep and goats	42	3	45
Sub total		126	75	201

Secondary				
22	Leather work	39	8	47
23	Carpentry	7	1	8
24	Rope making	5	24	29
27	Basket making	8	-	8
29	Others	1	6	7
Sub total		60	39	99

Tertiary				
31	Tailoring	3	2	5
32	Provision shop	6	2	8
33	Par shop	4	-	4
34	Hotél	7	-	7
35	Laundry	1	-	1
36	Cutting saloon	1	-	1
37	Cycle shop	6	1	7
38	Others	12	8	20
Sub total		40	13	53

Grand total		226	127	353

Table 4.2.2 : Villagewise and sectorwise distribution of 226 sample cases in Jath Taluka

Sector code	Sector	Village						Total	
		Baj	Dafalapur	Jath	Sonyal	Sankh	Umadi		Belondgi
<u>Primary</u>									
11	Minor irrigation	2	8	-	4	10	10	1	35
13	Bullockcart/pair	-	-	-	-	6	-	-	6
14	Dairy	15	1	-	10	9	8	-	43
15	Sheep and Goats	-	-	-	-	24	5	13	42
	Sub total	17	9	-	14	49	23	14	126
<u>Secondary</u>									
22	Leather work	1	1	26	5	2	2	2	39
23	Carpentry	4	1	-	1	-	-	1	7
24	Rope making	-	1	-	2	1	1	-	5
27	Basket making	-	-	-	2	6	-	-	8
29	Others	-	-	-	1	-	-	-	1
	Sub total	5	3	26	11	9	3	3	60
<u>Tertiary</u>									
31	Tailoring	1	1	-	-	-	1	-	3
32	Provision shop	1	2	-	1	2	-	-	6
33	Parshop	1	3	-	-	-	-	-	4
34	Hotel	-	3	-	1	-	3	-	7
35	Laundry	-	-	-	-	-	1	-	1
36	Cutting saloon	-	-	-	1	-	-	-	1
37	Cycle shop	-	1	-	2	1	1	1	6
38	Other	1	2	-	2	2	5	-	12
	Sub total	4	12	-	7	5	11	1	40
	Grand total	26	24	26	32	63	37	18	226

Table 4.2.3 : Villagewise and sectorwise distribution of 127 sample cases in Walwa taluka

Sector code	Sector	Village							Total	
		Kurlap	Bhavani-nagar	Got-khindi	Rethare Dharan	Nerle	Walwa	Chi-kurde		Ashta
<u>Primary</u>										
11	Minor irrigation	1	-	-	-	-	8	-	12	21
13	Bullockcart/pair	4	-	-	3	-	-	5	-	12
14	Dairy	2	7	8	10	8	-	4	-	39
15	Sheep and Goats	-	-	-	1	2	-	-	-	3
	Sub total	7	7	8	14	10	8	9	12	75
<u>Secondary</u>										
22	Leather work	1	-	1	2	3	-	1	-	8
23	Carpentry	1	-	-	-	-	-	-	-	1
24	Rope making	12	-	1	3	-	-	8	-	24
27	Basket making	-	-	-	-	-	-	-	-	-
29	Others	-	-	-	-	4	-	2	-	6
	Sub total	14	-	2	5	7	-	11	-	39
<u>Tertiary</u>										
31	Tailoring	-	-	-	-	-	-	2	-	2
32	Provision shop	-	-	-	-	1	-	1	-	2
33	Panshop	-	-	-	-	-	-	-	-	-
34	Hotel	-	-	-	-	-	-	-	-	-
35	Laundry	-	-	-	-	-	-	-	-	-
36	Cutting saloon	-	-	-	-	-	-	-	-	-
37	Cycle shop	-	-	1	-	-	-	-	-	1
38	Other	-	-	-	2	3	-	3	-	8
	Sub total	-	-	1	2	4	-	6	-	13
	Grand total	21	7	11	21	21	8	26	12	127

Table 4.2.4 : Distribution of beneficiary cases according to the Lending Bank

Name of the Bank	Jath	%	Walwa	%
1. Bank of India	62	27.44	46	36.22
2. Bank of Maharashtra	79	34.95	8	6.30
3. State Bank of India	21	9.29	7	5.51
4. District Cooperative Bank	28	12.39	1	0.79
5. Land Development Bank	16	7.08	21	16.54
6. Sangli Bank	4	1.77	-	-
7. K.V.I.C.	16	7.08	32	25.20
8. Warna Cooperative Bank	-	-	9	7.08
9. Sakharale Sugar Factory	-	-	3	3-26
Total	226	100.00	127	100.00

Table 4.3.1 : Distribution of beneficiary families according to whether SC/ST/Others

SC/ST	Jath	Percentage	Walwa	Percentage	Total	Percentage
SC	76	35.51	51	40.16	127	37.24
ST	5	2.34	3	2.36	8	2.35
Others	133	62.15	73	57.48	206	60.41
Total	214	100.00	127	100.00	341	100.00

while there were 8 one-member families. There were 90 families with 5 members each. The distribution of sample families according to the size is presented in Table 4.3.2.

Table 4.3.2 : Distribution of 341 families according to number of persons

No. of persons in family	Frequency	Percentage
1	8	2.35
2	23	6.74
3	37	10.85
4	62	18.18
5	90	26.39
6	64	18.77
7	43	12.61
8	12	3.52
9	2	0.59
Total	341	100.00

Adult Earners

There were 125 or 36.66 per cent families who had only one adult earner while there were two families with as many as 7 adult earners each. One hundred and nine families had two earners while 59 families had three earners. Thus, there were 85.92 per cent families with three or less adult earner and 14.08 per cent of families with four or more adult earners each. The distribution of beneficiary families according to number of adult earners is presented in Table 4.3.3.

Table 4.3.3 : Distribution of 341 families according to adult earners in the family

No. of adult earners	Frequency	Percentage
1	125	36.65
2	109	31.97
3	59	17.36
4	30	8.80
5	13	3.81
6	3	0.88
7	2	0.59
Total	341	100.00

The distribution of sample families according to the age of the head of the household is presented in Table 4.3.4. The distribution of households according to the educational level of the head of the household is presented in Table 4.3.5. Of the 341 heads of the households, 186 were illiterate which works out to as high as 54.55 per cent. There were only 8 who had education upto S.S.C. and only 5 with some higher education. The purpose of loan and educational background were cross tabulated and are presented in Tables 4.3.6 and 4.3.7 for Jath and Walwa respectively. There is no systematic pattern relating the two. Tables 4.3.6 and 4.3.7 refer to beneficiary cases which are 353 in number as explained earlier.

Table 4.3.4 : Distribution of 341 families according to age of the head of family

Age group	Frequency	Percentage
Below 19	-	-
20 - 29	29	8.50
30 - 39	96	28.15
40 - 49	101	29.62
50 - 59	82	24.05
60 and above	33	9.68
Total	341	100.00

Table 4.3.5 : Talukawise distribution of 341 families according to education of the head of family

Education	Jath	%	Walwa	%	Total	%
Illiterate	125	58.41	61	48.03	186	54.55
Literate upto 4th standard	46	21.49	20	15.75	66	19.35
5th to 7th std.	25	11.68	31	24.41	56	16.42
8th to 10th std.	12	5.61	8	6.30	20	5.86
S.S.C.	5	2.34	3	2.36	8	2.35
Higher education	1	0.47	4	3.15	5	1.47
Total	214	100.00	127	100.00	341	100.00

Table 4.3.6 : Distribution of beneficiary cases according to purpose of loan and educational level of the head of family : Jath taluka

Acti- vity code	Reason for loan	Educational level of the head of family						Total	
		Illite- rate	Lite- rate	5th to 7th std.	8th to 10th std.	SSC	Higher educa- tion		Technial educa- tion
11	Minor irrigation	15	9	8	2	1	-	-	35
13	Bullock cart/pair	4	2	-	-	-	-	-	6
14	Dairy	29	6	4	1	2	1	-	43
15	Sheep and goat	34	3	2	2	1	-	-	42
22	Leather work	20	13	2	2	2	-	-	39
23	Carpertry	1	2	4	-	-	-	-	7
24	Rope making	5	-	-	-	-	-	-	5
27	Basket making	6	2	-	-	-	-	-	8
29	Others	1	-	-	-	-	-	-	1
31	Tailoring	2	1	-	-	-	-	-	3
32	Provision shop	1	2	2	1	-	-	-	6
33	Pan shop	1	3	-	-	-	-	-	4
34	Hotel	3	1	2	1	-	-	-	7
35	Laundry	1	-	-	-	-	-	-	1
36	Cutting saloon	1	-	-	-	-	-	-	1
37	Cycle shop	1	-	2	2	1	-	-	6
38	Others	6	5	-	1	-	-	-	12
Total		131	49	26	12	7	1	-	226

Table 4.3.7 : Distribution of beneficiary cases according to purpose of loan and educational level of the head of family : Walwa taluka

Acti- vity code	Reason, for loan	Educational level of the head of family						Total	
		Illite- rate	Lite- rate	5th to 7th std.	8th and 10th std.	SSC	Higher educa- tion		Technical educa- tion
11	Minor irrigation	4	5	7	3	-	2	-	21
13	Bullock cart/pair	8	1	2	1	-	-	-	12
14	Dairy	18	8	9	3	1	-	-	39
15	Sheep and goats	3	-	-	-	-	-	-	3
22	Leather work	2	1	3	-	1	1	-	8
23	Carpentry	-	-	1	-	-	-	-	1
24	Rope making	20	3	1	-	-	-	-	24
27	Basket making	-	-	-	-	-	-	-	-
29	Others	3	1	2	-	-	-	-	6
31	Tailoring	-	-	1	-	-	1	-	2
32	Provision shop	-	-	2	-	-	-	-	2
33	Parshop	-	-	-	-	-	-	-	-
34	Hotel	-	-	-	-	-	-	-	-
35	Laundry	-	-	-	-	-	-	-	-
36	Cutting saloon	-	-	-	-	-	-	-	-
37	Cycle shop	-	1	-	-	-	-	-	1
38	Others	3	-	3	1	1	-	-	8
Total		61	20	31	8	3	4	-	127

CHAPTER V

FINDINGS REGARDING PROCEDURAL ASPECTS

We have taken information about the applicants of the year 1983-84 from two bank branches, one from Jath and one from Walwa taluka. The branches were from the villages we visited and has received about 200 applications each. These can be taken to represent recent picture in respect of some aspects like time required for processing the applications, for crediting the subsidy and the reasons for returning the application by the banks to the BDO offices. We were also interested in finding out the monthly rate of flow of applications to the banks.

Mentioning the names of the bank branches is avoided and instead they are referred to as Branch 1 and Branch 2. There were 213 applications received by the Branch 1 and 200 by the Branch 2 during the year 1983-84. We have collected the information about these applications. As far as the sanctioned cases are concerned the applications are available at the bank but the returned applications are either with BDO or back to Gramsevak for the follow up action. Therefore, for the sanctioned cases the information was collected regarding the purpose of loan, amount of loan applied for and sanctioned, the date of application as revealed by the date of signing by the Gramsevak, date of receiving the application by the bank office, date of sanction of loan, date of crediting the subsidy and the amount of subsidy. In the case of returned applications a limited information like the purpose of loan, the amount of loan applied for and the

reason for returning the application was noted down from the records maintained by these branches.

As mentioned above there were in all 413 applications received by these two branches. Of the 213 applications received by the Branch 1, 78 were sanctioned and out of 200 received by the Branch 2, 61 were sanctioned. Some of the applications received earlier may have been sanctioned or returned during the year 1983-84 but we restricted the study to the applications received during the year 1983-84 because we were interested in the latest picture and 1983-84 was the latest year for which full information was available. We could have chosen 1984-85 but since the year was yet to be over and also the information was not available readily, we chose 1983-84 instead of 1984-85 the latest year.

For the returned applications a register was maintained in both these branches. However, in the case of Branch 2, a bunch of 25 applications of the year 1983-84 was returned before the register was introduced and therefore information was not available for these 25 applications. In Table 5.0.1 are presented the purpose-wise frequencies of the applications and also the number sanctioned and returned.

The dairy sector was the major sector for which 132 or 34.02 per cent applications were received. It is also a major sector to which 48 or 34.53 per cent of the sanctioned applications belong. Of the 249 applications returned, as many as 84 or 33.73 per cent were for dairy cattle. If we look at this in a different way, out of 132 applications received for dairy

Table 5.0.1 : Distribution of 1983-84 Applications According Purpose of Loan and Sanctioned or Returned

Purpose of Loan	Branch 1			Branch 2			Total		
	Rece- ived	Sanc- tion- ed	Re- turn- ed	Rece- ived	Sanc- tion- ed	Re- turn- ed	Rece- ived	Sanc- tion- ed	Re- turn- ed
11 Minor Irrigation	42	6	36	-	-	-	42	6	36
12 Land Development	14	2	12	-	-	-	14	2	12
13 Bullock cart/pair	26	10	16	-	-	-	26	10	16
14 Dairy	4	1	3	128	47	81	132	48	84
15 Sheep and Goat	48	26	22	5	2	3	53	28	25
16 Poultry	8	-	8	-	-	-	8	-	8
Sub Total	142	45	97	133	49	84	275	94	181
22 Leather Work	5	1	4	-	-	-	5	1	4
23 Carpentry	3	3	-	-	-	-	3	3	-
24 Rope-making	-	-	-	-	-	-	-	-	-
27 Basket making	1	-	1	4	-	4	5	-	5
29 Others	-	-	-	-	-	-	-	-	-
Sub Total	9	4	5	4	-	4	13	4	9
31 Tailoring	9	2	7	2	2	-	11	4	7
32 Provision Shop	12	5	7	4	1	3	16	6	10
33 Pan Shop	3	1	2	2	-	2	5	1	4
34 Hotel	3	-	3	1	-	1	4	-	4
35 Laundry	-	-	-	1	-	1	1	-	1
36 Cutting Salloon	2	1	1	2	-	2	4	1	3
37 Cycle Shop	11	8	3	1	1	-	12	9	3
38 Others	22	12	10	25	8	17	47	20	27
Sub Total	62	29	33	38	12	26	100	41	59
N.A.	-	-	-	-	-	25	25	-	25
Grand Total	213	78	135	200	61	139	413	139	274

cattle as many as 84 or 63.64 per cent were returned. Other major categories were sheep and goat, minor irrigation and miscellaneous activities in the tertiary sector.

5.1 Time taken for sanction

We have looked into the dates of filling in the application and signing by the Gramsevak. The applications are then submitted to the BDO office which are scrutinized and forwarded to the concerned banks by the BDO. As revealed by the data on the above-mentioned 137 sanctioned cases, there is a considerable delay in forwarding the applications to the banks. In Table 5.1.1. we have presented the distribution of 139 sanctioned applications according to the time gap between the signing the application by the Gramsevak and receiving the same by the bank. Only 23 applications were forwarded within a months time. Only 81 or 58.27 per cent applications took two months to get forwarded. As many as 41 i.e. 29.50 per cent applications took more than 6 months; 19 applications took more than a year to reach the bank. Two months may be considered as a reasonable period for forwarding the applications to the bank. The process of forwarding by the BDO office needs to be made more efficient.

Now let us look into the time taken by the bank for sanction of the applications. We have presented in Table 5.1.2 the distribution of sanctioned applications according to the time taken since they were received. There were only 25 applications which were processed within a month. Only 85 or 61.1 per cent applications were sanctioned within two months of the receipt of applications by the banks.

Table 5.1.1. : Distribution of 139 Sanctioned applications according to the time gap between signing by the Gramsevak and receiving by the banks.

Gap in months	No. of Cases		Total
	Branch 1	Branch 2	
0	13	10	23
1	29	17	46
2	12	-	12
3	8	-	8
4	-	4	4
5	4	-	4
6	1	-	1
7	1	-	1
8	5	-	5
9	5	-	5
10	-	4	4
11	-	2	2
12	-	5	5
13	-	6	6
14	-	5	5
15	-	8	8
TOTAL	78	61	139

Of course, most of the applications were sanctioned within six months and only 6 applications took 7 months. Processing by the banks seems comparatively better, although there is scope

Table 5.1.2 : Distribution of 139 sanctioned cases according to time taken by the banks for sanctioning

Time in months	No. of cases		Total
	Branch 1	Branch 2	
0	16	9	25
1	15	6	21
2	11	28	39
3	5	11	16
4	2	3	5
5	7	-	7
6	20	-	20
7	2	4	6
TOTAL	78	61	139

for improving the efficiency. As a matter of fact, at the bank level also an application should be processed within 2 months time.

As far as the beneficiary is concerned, it is important for him to get the sanction as early as possible and whether the delay is at the BDO office or at the bank is in itself not important for him. We have also examined the total time taken for the sanctioning since the signing of the application by the Gramsevak. This data is presented in Table 5.1.3. If we agree for a maximum period of 2 months period for BDO office and also 2 months for the bank office, an application should be sanctioned within 4 months time. If we look into the Table 5.1.3, there are only

58 or 41.70 per cent cases which were sanctioned within four months. There were as many as 32 applications which took 12 to 18 months for sanction.

Thus, it is clear from the above three tables that there is a need for expediting the processing of applications at the BDO's office and also at the banks. In this respect there is a view that there is no adequate staff for doing the IRDP work at the BDO office. Even in the bank branches, shortage of manpower was quoted as main reason for not being able to cope with the IRDP work. This aspect needs to be examined in more details.

5.2 Payment of Subsidy

It was mentioned by many in our general discussions that there is a considerable delay in the payment of subsidy under IRDP. We looked into this aspect in respect of our main sample beneficiaries but we wanted to have latest picture regarding this. We have therefore tabulated the data regarding time taken for crediting the subsidy since the sanction of the loan for these 139 sanctioned cases of 1983-84. This is presented in Table 5.2.1. It turns out that the subsidy is credited within six months in almost all the cases. It was credited within three months in more than fifty per cent of cases. There are 7 cases for which it is still to be credited and there are only 2 cases which took more than 6 months. The picture here is much better than the one obtained in the 1982-83 sample. There is a clear improvement in regards to the payment of the subsidy.

Table 5.1.3 : Distribution of 139 sanctioned cases according to the time taken for sanction since the signing of the application by the Gramsevak

Time in Months	No. of Cases		Total
	Branch 1	Branch 2	
0	6	-	6
1	9	-	9
2	6	2	8
3	7	16	23
4	5	7	12
5	4	2	6
6	9	1	10
7	11	3	14
8	7	-	7
9	3	-	3
10	-	-	-
11	8	-	8
12	-	1	1
13	1	4	5
14	2	4	6
15	-	9	9
16	-	7	7
17	-	3	3
18	-	2	2
TOTAL	78	61	139

5.3 Reasons for returning the applications

There are a number of reasons for which the bank finds the application unworthy of sanction. Such applications are returned to the BDO office. Some of them may have lacuna that could be filled in and some of them may have to be finally rejected. We were interested in looking into the reasons for returning the applications by the banks. There were 20 different reasons recorded for returning the cases. Table 5.3.1 gives the frequency of these reasons cross tabulated with the purpose of loan. As mentioned earlier we have data for 249 returned applications.

Table 5.2.1 : Distribution of 139 sanctioned cases according to time taken for crediting subsidy

Time in months	No. of Cases		Total
	Branch 1	Branch 2	
1	6	8	14
2	31	20	51
3	2	15	17
4	13	10	23
5	13	-	13
6	9	3	12
7	-	-	-
8	-	-	-
9	-	-	-
10	-	-	-
11	-	1	1
12	1	-	1
Not received	3	4	7
TOTAL	78	61	139

Table 5.3.1 : Distribution of Returned cases according to purpose of loan and reason for returning

Reasons for Rejection	Purpose of Loan																		Total	
	11	12	13	14	15	16	22	23	24	27	29	31	32	33	34	35	36	37		38
1 Application addressed to other bank	6	3	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
2 Not applied by the applicant	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	01
3 Not signed by B.D.O.	-	-	-	4	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	08
4 No due certificate from society not attached	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	02
5 Feasibility certificate from M.S.E.B. not attached	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
6 Over age	-	-	-	43	1	-	-	-	-	3	-	-	2	-	1	-	-	-	3	53
7 Land is not in the name of applicant	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	01
8 More land holding and is not eligible for IRDP	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	01
9 Not from allotted villages	2	3	1	-	7	-	1	-	-	-	-	2	-	1	-	-	1	1	1	20
10 Defaulter	2	2	3	10	-	-	2	-	-	1	-	-	-	-	1	-	-	-	2	23

Table 5.3.1 (contd.)

Reasons for Rejection	Purpose of Loan																		Total	
	11	12	13	14	15	16	22	23	24	27	29	31	32	33	34	35	36	37		38
11 Already granted	-	-	-	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	3	07
12 Not appropriate/viable	4	2	6	-	-	-	-	-	-	-	-	4	4	-	1	-	1	1	8	31
13 Village falls under dark-water shed	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	02
14 Land is acquired by Govt. for irrigation project	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	01
15 Land is not levelled, no water lifting device possible	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	02
16 No scope for land development and new well	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	02
17 No scope for construction of shed	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	08
18 Not approached to the bank not interested in taking loan	-	1	-	7	4	-	-	-	-	1	-	-	1	-	-	-	1	-	5	20
19 Out of village	-	-	-	4	5	-	-	-	-	-	-	-	-	1	-	1	-	-	2	13
20 Not available	3	-	3	7	7	-	1	-	-	-	-	1	2	-	1	-	-	1	-	26
Grand Total	36	12	16	84	25	8	4	-	-	5	-	7	10	4	4	1	3	3	27	249

The first nine reasons listed in the Table are such that these faults could be quickly identified at the BDO office, before forwarding the applications to the banks. The basic eligibility of the applicant as per the provisions of the IRDP and submission of essential certificate as stipulated in the procedure should be examined at the BDO office and then only the applications should be forwarded to the banks. There are as many as 53 or 21.28 per cent of the applications which were returned because the applicants were over age, there were 15 applications addressed to other banks but wrongly despatched to these banks, 8 applications were not signed by the BDO. For 13 applications, feasibility certificates from the Maharashtra State Electricity Board (MSEB) was not attached and there were 20 applications from the villages not allotted to these branches for IRDP. There are other four reasons, namely 'not applied by the applicant', 'no-due certificate from the society not enclosed', 'land not in the name of the applicant' and 'landholding more than the limit under IRDP', with 1, 2, 1 and 1 cases respectively. In all 114 or 45.78 per cent of the returned cases belong to these categories and these could have been avoided if only they were properly scrutinized at the BDO office before forwarding them to the banks. On this background it should be considered that at the bank level only (249-114=) 135 applications were returned.

Twentythree applications were returned because the applicants were defaulters. The reasons no.12 to 16 are in the nature of non-viability with and 38 cases were returned on account of

these reasons. Of these 38, the detailed description of non-viability was not recorded in the bank registers for 31 cases. However, for the other 7 cases we have got some information. Two cases of minor irrigation were returned because the village was under dark water-shed, one application for the purchase of bullock pair was returned because the land of the owner was acquired by the Government for irrigation project, two cases of minor irrigation were returned because the land levels were not suitable for irrigation, one case of land development and one case of new well were returned because there was no scope for this on the land of the owner. This completes the account of 7 non-viable cases for which the reasons were more specifically recorded. Coming back to 31 non-viable cases where no details were maintained, there are 19 cases of tertiary activity and it was reported by the bank officials that in most of these cases the proposals were not viable taking into consideration the size of the village and the existing establishments in the villages concerned. For the remaining 12 cases which are from primary sector, no information could be recollected by the officials.

The reason number 17 is a special category and specific to the local situation. There are eight cases belonging to this category of reason namely that there is no scope for the construction of shed for the proposed poultry units. In fact we have mentioned elsewhere in the report that the poultry activity should be encouraged in Jath taluka. The above eight cases are from Jath taluka. We are of the view that a little

more positive approach in these cases should have been taken by the bank. The applicants in these cases are 'Devadasis' and the banks do not seem to be considering them credit-worthy. Though special efforts seem to be being made at all levels for the upliftment of 'Devadasis', in these eight cases the bank did not consider their applications favourably. There is a need for more careful follow-up of their applications under IRDP by the Government officials, social workers and bank officials as well.

Now we came to the reason number 18 namely that the applicants are not interested. In these cases, the banks have approved their proposals and communicated them favourably but the applicants did not approach the bank. There are some cases where the banks have sent 3 reminders with no response from the applicants. In their effort to achieve the targets the Gramsevak might have prepared some cases though the applicants themselves were not enthusiastic. There is also a possibility that the applicants might have changed their mind subsequently. In either case the banks had approved these cases. There is another lot of 13 cases (reason no.19) which are again approved cases but the communications sent by the bank were returned undelivered because the applicants were not in the village. In some cases a messenger was also sent. In most of the cases the applicants were away in search of sugarcane cutting work. The banks should take follow up action in these cases by sending the messengers after sugarcane harvesting season is over.

For 26 cases the reasons were not available.

5.4 Flow of applications

With a view to achieving uniform progress throughout the year, the monthly targets are generally fixed. Uniform flow of applications is highly desirable for efficient administration at all levels. We wanted to look into this aspect. We collected monthwise information on number of applications received during the year 1983-84 by these two bank branches and one more branch which we had visited. The data is presented in Table 5.4.1. In each of these three branches there is lumping of applications during the months of August and September. In the Branch 1, 130 (or 61.03 per cent) out of 213, applications were received during August and September; in the Branch 2, 92 (52.57 per cent) out of 175 and in Branch 3, 399 (66.17 per cent) out of 603 applications were received during these two months. During the first three months of the financial year i.e. April, May and June, none of these three branches received any application. Two of them did not receive any application even in July and the Branch 1 received a meagre 14 applications. The IRDA should endeavour to achieve a uniform flow of applications over twelve months of the year to facilitate smooth and efficient working at every level.

5.5 Amount of loan sanctioned

It is of interest to find out the amount of loan sanctioned by the banks in relation to the amount of loan sought by the applicants. For this purpose the data on loan amount applied for

Table 5.4.1 : Monthwise number of applications received during the year 1983-84

Months	No. of applications received			Total
	Branch 1	Branch 2	Branch 3	
April	-	-	-	-
May	-	-	-	-
June	-	-	-	-
July	14	-	-	14
August	79	46	141	266
September	51	46	36	133
October	17	6	12	35
November	7	16	3	26
December	7	59	-	66
January	7	1	16	24
February	18	1	5	24
March	13	-	2	15
TOTAL	213	175	215	603

and sanctioned was tabulated. In Table 5.5.1 is presented the distribution of 139 sanctioned cases by purpose and by percentage of amount sanctioned. There are 8 cases for which the amount sanctioned was more than 100 per cent. Three of them are cases of buffalo purchase, each one had applied for Rs. 2,000 but the cost of animal was Rs. 2,500. Other cases are one each of bakery, cobbler, carpenter, well-repair and goats. There are 34 cases for which 100 per cent amount was

sanctioned; in case of another 33 applications the percentage was 80 to 90 and in 12 cases it was 70 to 80. Thus, in 87 cases the sanctioned loan was 70 per cent or more of the loan applied for.

Let us look into the cases of lower percentage amount sanctioned. In the group 60 to 70 per cent there are 11 cases of purchase of goat, each one had applied for Rs. 5,000. This was much more than Rs. 3,000 to 3,500 sanctioned in general for the purchase of 10+1 goats. Each one of them was sanctioned Rs. 3,000. It appears reasonable. Similar is the phenomenon with 7 cases of dairy cattle. Each one had applied for Rs. 4,000 and the animals were purchased for Rs. 2,500. It seems that there has not been any undue reduction in the loan amount by the banks.

However let us examine the lowest 4 cases where the percentage of sanction is less than 30. One was a fisherman with application for Rs. 4,000. The fishing is done in canal water and there is no scope for purchasing assets other than net and basket. The Bank Manager expressed that the fishing is on a very small scale and investment more than Rs. 1,000 was not worth. There is one case each of a goldsmith, a blacksmith and a fruit vendor. The blacksmith asked for Rs. 4,000. The guidelines prepared by the State Level Banker's Committee and the Government of Maharashtra has given a limit of Rs. 2,000 for the blacksmith. The bank provided only Rs. 1,000. In any case Rs. 4,000 was too much. The goldsmith has asked for Rs. 5,000

Table 5.5.1 : Distribution of 139 sanctioned cases according to percentage of loan sanctioned and purpose of loan

Purpose	% of Loan Sanctioned											Total
	More than 100	100	90 to 100	80 to 90	70 to 80	60 to 70	50 to 60	40 to 50	30 to 40	20 to 30	10 to 20	
11 Minor Irrigation	1	2	-	-	3	-	-	-	-	-	-	6
12 Land Development	-	-	-	-	1	1	-	-	-	-	-	2
13 Bullock cart/pair	-	1	-	-	2	1	4	1	1	-	-	10
14 Dairy	3	14	-	22	-	7	2	-	-	-	-	48
15 Sheep/Goats	1	5	-	8	3	11	-	-	-	-	-	28
16 Poultry	-	-	-	-	-	-	-	-	-	-	-	-
22 Leather Work	1	-	-	-	-	-	-	-	-	-	-	1
23 Carpentry	1	1	-	-	-	1	-	-	-	-	-	3
24 Rope Making	-	-	-	-	-	-	-	-	-	-	-	-
29 Others	-	-	-	-	-	-	-	-	-	-	-	-
31 Tailoring	-	3	-	-	-	-	-	-	1	-	-	4
32 Provision Shop	-	2	-	1	-	2	-	-	1	-	-	6
33 Pan Shop	-	1	-	-	-	-	-	-	-	-	-	1
34 Hotel	-	-	-	-	-	-	-	-	-	-	-	-
35 Laundry	-	-	-	-	-	-	-	-	-	-	-	-
36 Cutting Saloon	-	-	-	-	-	-	-	-	1	-	-	1
37 Cycle Shop	-	1	-	2	-	3	2	1	-	-	-	9
38 Others	1	4	-	-	3	2	6	-	-	4	-	20
TOTAL	8	34	-	33	12	28	14	2	4	4	-	139

and was given Rs. 1,000. As a matter of fact in the above guidelines this activity is not even listed. It also appeared that there was only a limited scope for the goldsmith in that particular village. A fruit vendor applied for Rs. 2,000 but was given only Rs. 500 as per the guidelines.

There are 4 cases where the sanction was between 30 to 40 percent of the loan applied for and 2 cases where it was between 40 to 50 percent. On looking into the details of these cases also we did not feel that the amounts were reduced unreasonably by the banks. However, it may be mentioned here that these comments have limitations because we have not examined the original proposals for want of time.

5.6. Observations based on the sample of non-beneficiaries

It was planned to contact some non-beneficiary families in the sample villages in order to know from them as to why they have not availed of the facilities of the Integrated Rural Development Programme. For this purpose a small questionnaire was framed which included questions on whether they had information that the survey of families below poverty line (B.P.L.) Survey) was conducted by the Government of Maharashtra and that the lists of such families have been prepared, whether they knew that IRD Programme is in operation, whether they had tried to get the benefit of IRD facilities and with what results, if they did not try, why they did not and so on. Four to five non-beneficiaries were contacted in each village. The total number of questionnaire filled in for non-beneficiaries was 64. They are all BPL families.

Of these 64, only 22 possessed some land. Most of these 22 heads of the household were also working as labourers. There were 25 landless agricultural labourers and 15 were rural artisans, one was having a panshop and one was a peon of a grampanchayat.

Everybody except two reported the awareness of the BPL lists and also the IRD Programme. They know that under the IRD programme families who are below poverty line - in their language 'poor families' - are provided with loan to enhance their income. Question regarding the information they had about IRDP was open ended and their free responses were recorded. Though all did not mention about the availability of subsidy under the programme, they appeared quite aware of the subsidy facility.

As regards the communication of information on IRDP all of them reported that they were informed by the gramsevak except one who mentioned the village teacher as the source of information and other three reported that they knew only from other villagers.

Of 62, those who knew about IRDP 60 had applied for and other two reported interest in applying. The only two who did not know anything about IRDP were told of the schemes and asked whether they would be interested in taking the advantage. One wanted loan for buffalo purchase and the other for his rope making business.

Nine respondents had applied for loan of 10,000, one had applied for 15,000, one for 9,000, thirty six for amounts above 2,000 and upto 5,000 and thirteen had applied for 2,000 or less. Application of the forty-eight were still pending, nine applications were rejected, one was still with the gramsevak and the in

remaining two were sanctioned but not effected (Table 5.6.1). One person whose application was sanctioned could not do the needful as he had gone away in search of sugarcane cutting work. Another person reported that he had gone three times to the concerned bank on knowing about the sanction but everytime he was asked to come again and subsequently he had to leave the village for sugarcane cutting work. He had returned but was still to enquire.

Table 5.6.1 : Distribution of 64 non-beneficiaries according to the status of application

Application Status	No. of cases
Pending	48
Rejected	9
Sanctioned but amount not received	2
With Gramsevak	1
	60
Not applied	4
TOTAL :	64

As mentioned above there were nine applications which were rejected. Two were rejected because they were defaulters of other scheme, one was rejected because the applicant was too old. One application for poultry was rejected because the concerned bank did not consider it was viable in that village.

There were four applications for brick-making from a

single village of which two were for Rs. 10,000 each. They were told that only Rs. 1,000/- could be sanctioned to them. But the sanction was not effected because they did not have permission letter from the Grampanchayat for using land. These two reported that there was groupism in the village and there were others to whom such permission was given while it was denied to them. The other two had applied for Rs. 2,000 each but their applications were also rejected. The reason was not known. There were four beneficiaries in this village who had been given loan of Rs.1,000/- each during the year 1982-83 under DRDP. It appears that the bank wanted to limit the number in a particular activity. But the phenomenon of groupism, etc., can not be ruled out. This completes the account of eight cases. The ninth case was again for brick-making from some other village and it was rejected on the ground that the scheme was not viable.

A general question regarding their impression and opinions about the IRDP was asked to which most of them answered saying that it was a good programme and that it is helpful to the beneficiaries and expressed a desire that it should be continued. Only a few complained that the loans under IRDP are being sanctioned only if one has contacts.

There were 48 applications for which the results were not known to the applicants. These are referred to as pending cases. As many as 28 persons reported that they did not enquire regarding the progress of their applications, eleven reported that they enquired and nine reported that they had enquired several times

(Table 5.6.2). Some of them have given account of their visits to the bank offices with no positive results.

One application was made 3 years before; 12 were made 2 years before; and 7 were made 1½ years before; 17 were made a year before and 13 were made less than a year before. Excepting the three year old single case all other cases are after the formation of DRDA and as such it indicates that there may be a large number of such applications for which the decision is pending. The DRDA may look into the issue immediately, scrutinize these applications and take and convey their decision to the applicants. Sectorwise distribution of these applications is presented in Table 5.6.3.

From the above account of the responses of the non-beneficiaries, following conclusions emerge :

- i) The information regarding IRDP has, by and large, reached the villagers. This appears to be so because of the preparation of the lists of the families below poverty line (BPL survey). Moreover there were credit camps organised in these villages. However, it may be noted that the villages in the sample were selected from the first 10 villages with highest number of beneficiaries and this in itself could be the reason that most of the villagers are aware of the Integrated Rural Development Programme.
- ii) From the data about the beneficiaries it was found that the beneficiaries during the year 1982-83 had received

the loans within two to three months of their date of application. This gives a picture that the processing and sanctioning of the applications was quick. But as shown in the Table No. 5.6.1 a large number of pending cases in the non-beneficiary group were pending for more than a year. This gives a clear indication that the older applications are just kept aside. The DRDA may look into this and take up the work of clearing the old cases.

- iii) The source of information in most of the cases has been the Gramsevak.
- iv) By and large, the respondents felt that the programme was useful for those who received the loans and subsidies.

5.7 BPL Lists and Beneficiaries

During the first quarter of the year 1982-83, a survey was conducted in Maharashtra State to identify the families below the poverty line (BPL). Only those families who were included in these lists are eligible for borrowing under IRD programme. It was contemplated that the IRD programme would cover the poorest of the poor first - the approach known as Antyodaya. During our survey we decided to look into this aspect as well. For this, we copied the BPL lists from 7 villages out of the 10 initial sample villages. For want of time, we did not proceed to collect the BPL lists for other villages.

In the application form for IRDP loan, it is necessary to

mention Serial Number of the family in the BPL list of the village. We found that the serial numbers recorded in the registers at the BDO office, which are supposed to have been copied from the application form, did not tally with the serial number in the BPL lists in most of the cases. On this, we tried to get the explanation but we could not get any satisfactory explanation for those discrepancies. Therefore, it became more tedious to check whether a particular beneficiary belongs to the BPL list or not because it became necessary to search the names without the help of serial numbers. However, we did this checking for our sample in these 7 villages and found that about 90 per cent of these sample beneficiaries were from the BPL lists (Table 5.7.1). We also feel that there may still be more cases of beneficiaries belonging to the BPL lists but we could not identify them. This could have happened because the name in the list may be one and the application for IRDP may be in the name of some other member's name in the family. We identified some cases of this type, and there may be some more. On the whole, we feel that the beneficiaries were mostly from the BPL lists.

5.8. Antyodaya Approach

For understanding whether there was any attempt to follow the 'Antyodaya' approach, we identified the lowest of 10 per cent of the BPL families in each of these villages on the basis of the incomes reported in these BPL lists and checked as to how many of the sample families belonged to this group. We have presented the information in Table 5.7.1 below. The figures speak by themselves. Only 9.52 per cent of the sample beneficiaries belonged to this lowest income group. Obviously, there has not be any effort to follow Antyodaya approach.

Table 5.6.2 : Distribution of 48 pending applications according to months lapsed since they applied and whether they made enquiries

Period Lapsed	Did not enquired	Enquired	Enquired several times	Total
3 years	-	1	-	1
2 years	8	-	3	11
1½ years	6	-	1	7
1 year	7	6	3	16
6 to 9 months	4	2	1	7
less than 6 months	3	2	1	6
TOTAL	28	11	9	48

Table 5.6.3 : Distribution of 48 pending applications according to sector

Sector	No. of cases
Minor Irrigation	2
Bullock Pair	1
Dairy Cattle	15
Sheep/goat	8
Poultry	1
Rural Artisans	6
Tailoring	2
Shops	7
Vendors	6
TOTAL	48

Table 5.7.1. : BPL list and beneficiary families.

Item	Village Name							Total
	Raj	Dafala- pur	Sonyal	Sankh	Umadi	Kurlap	Bhawani- nagar	
Total No.of families in the BPL list	267	358	404	526	606	351	222	2734
No. of families in the sample	26	26	32	63	37	21	7	210
No.of families from the sample but not found in BPL list	-	4	2	-	17	2	-	25
No.of families in the lowest income group (10%)	27	35	40	53	60	35	22	272
No.of families in the sample and belonging to the lowest income group	-	-	6	9	3	-	2	20

CHAPTER VI
DAIRY ANIMALS

6.1 Sample Beneficiaries

This is one of the major sectors for which the loans have been distributed under IRDP almost all over the country. The district of Sangli is no exception. Between the two talukas, Walwa has better rainfall as well as irrigation resulting into better fodder availability and therefore the keeping of the dairy cattle is quite common in this taluka. Jath taluka has scanty rainfall, very little irrigation and hence the keeping of dairy cattle is much less. There is much better marketing infrastructure available in Walwa than in Jath. This is reflected in these being a large number of IRDP beneficiaries in Walwa in this sector. There were 373 beneficiaries in 1982-83 in Jath taluka and 759 in Walwa taluka.

From this category 82 beneficiaries were covered in the sample; 43 from Jath taluka and 39 from Walwa taluka. During the survey it was found that out of these 82 beneficiaries, 5 beneficiaries from one of the villages in Jath taluka had not purchased any animal. This was admitted by all the five individuals. In all other cases it was found that the animals were actually purchased and were with the beneficiaries at the time of enquiry except in the cases of death or sale of animals. This was ascertained at the time of survey by careful probing and through general discussions with the villagers. This is how the above five cases were detected. Thus there were 77

beneficiaries whose activity accounts needed to be analysed; 38 from Jath taluka and 39 from Walwa taluka. There were only four beneficiaries who purchased two animals each; all others had only one animal each. Therefore, there were 81 animals possessed by the 77 beneficiaries. Of these 81 animals only 10 were cows and 71 were buffaloes. All the ten cows were Jersey or Holstein whereas all the buffaloes were of local breed.

Land Holding

Of the 43 beneficiaries in this sector in Jath taluka, 28 beneficiaries had land and the other 15 were landless while in Walwa taluka out of the total number of 39, 25 beneficiaries had land and 14 were landless. The distribution of these land holding beneficiaries according to their operational holding is given in Table 6.1.1. In Jath taluka 8 beneficiaries had irrigated land and in Walwa 9 had it. The distribution of these beneficiaries according to their irrigated landholding is presented in Table 6.1.2. It is interesting to note that out of 9 beneficiaries in Walwa having irrigated land, 7 had less than or equal to 20 gunthas and of these 6 were cultivators of sugarcane on these small plots. The two cultivators in the next class had each one acre of irrigated land and both cultivated sugarcane. Whereas, there was none who cultivated sugarcane in Jath taluka among these 8 beneficiaries with irrigated landholding.

SC/ST Beneficiaries

There were 19 beneficiaries from scheduled castes in the sample of 77 beneficiaries. Of these nineteen, six were in Jath

Table 6.1.1: Distribution of Beneficiaries According to Operational Land Holding (Acres-Gunthas) : Dairy

Operational land holding in acres	Jath					Walwa					Jath + Walwa				
	No. of beneficiaries		Total Area			No. of beneficiaries		Total Area			No. of beneficiaries		Total Area		
	To- tal	With irri- gated land	Total	Unirri- gated	Irri- gated	To- tal	With irri- gated land	Total	Unirri- gated	Irri- gated	To- tal	With irri- gated land	Total	Unirri- gated	Irri- gated
Upto 1	5	1	4-30	3-30	1-00	14	5	6-16	4-35	1-21	19	6	11-06	8-25	2-24
2	10	4	18-26	12-36	5-30	10	4	18-20	15-20	3-00	20	8	37-06	28-16	8-30
3	7	2	19-30	15-10	4-20	-	-	-	-	-	7	2	19-30	15-10	4-20
4	3	-	12-00	12-00	-	-	-	-	-	-	3	-	12-00	12-00	-
5	2	-	10-00	10-00	-	-	-	-	-	-	2	-	10-00	10-00	-
6	1	1	6-00	1-00	5-00	-	-	-	-	-	1	1	6-00	1-00	5-00
7	-	-	-	-	-	1	-	7-00	7-00	-	1	-	7-00	7-00	-
Total	28	8	71-06	54-36	16-10	25	9	31-36	27-15	4-21	53	17	103-02	82-11	20-31

Table 6.1.2 : Distribution of Beneficiaries Having Irrigated Land According to Its Size (Acres-Gunthas) : Dairy

Irrigated Land Acre-Guntha	No. of beneficiaries		Jath + Walwa
	Jath	Walwa	
Upto 20 Gunthas	-	7	7
1 Acre	3	2	5
1-20	1	-	1
2-00	2	-	2
2-20	-	-	-
3-00	1	-	1
3-20	-	-	-
4-00	-	-	-
4-20	-	-	-
5-00	1	-	1
Total :	8	9	17

and 13 in Walwa. In Jath five held land and in Walwa only 4 were land owners.

One beneficiary had purchased two buffaloes so that total number of animals purchased by this group was 20.

Table 6.1.3 : Distribution of SC Beneficiaries in Dairy Sector

Category	No. of Beneficiaries		
	Jath	Walwa	Total
Land owner	5	4	9
Landless	1	9	10
TOTAL	6	13	19

Income without IRDP

As explained in the chapter on methodology, the income of the beneficiary households during the year 1983-84 from all sources except the IRDP activity was estimated on the basis of data collected. The distribution of beneficiary households according to this income, i.e., income without IRDP is presented in Table 6.1.4. The five beneficiaries who did not purchase animals are not included in this table resulting into total frequency of 77 beneficiaries. Of these five, two belonged to the class of above Rs. 1,000 and upto Rs. 1,500, one belonged to the class above Rs. 2,000 and upto Rs. 2,500 and two belonged to the class above Rs. 2,500 and upto Rs. 3,000.

There are more beneficiaries in higher income class in Walwa compared to Jath. There were 14 families with income higher than Rs. 5,000 in Walwa whereas there were only 6 such families in Jath. On the lower and also similar situation holds as there are 12 families with income of Rs. 2,000 or less in Jath while there are only 5 families in this category in Walwa.

Extent of Misclassification

These families are classified according to below poverty line (BPL) or above poverty line (APL) by comparing their income without IRDP during the year 1983-84 with the poverty line based on the number of members in the family as explained in the chapter on methodology. There were 25 families below poverty-line in Jath and 26 in Walwa out of 38 and 39 respectively. According to this approach of analysis there were

Table 6.1.4 : Distribution of Sample Beneficiaries According to Income without IRDP During 1983-84
: Dairy

Income Class		No. of Beneficiaries		
Rs.		Jath	Walwa	Jath + Walwa
Upto	500	-	-	-
"	1000	2	2	4
"	1500	5	1	6
"	2000	5	2	7
"	2500	3	6	9
"	3000	6	7	13
"	3500	1	3	4
"	4000	4	1	5
"	4500	2	2	4
"	5000	2	1	3
"	5500	2	1	3
"	6000	2	1	3
"	6500	2	2	4
"	7000	-	1	1
"	7500	-	2	2
"	8000	-	3	3
"	8500	-	-	-
"	9000	-	1	1
"	9500	-	1	1
"	10000	-	-	-
	Above 1000	2	2	4
TOTAL :		38	39	77

13 families in each taluka who were misclassified as below poverty line families and were given IRDP support. Thus, the extent of misclassification is 26 out of 77 that is 33.77 per cent.

6.2 Sale of Animals

There were 19 beneficiaries who sold their animals; six from Jath and 13 from Walwa. One of the beneficiary from Jath had two animals and he sold both of them, therefore, 20 animals were sold. The time period lapsed between the purchase of animal and its sale was examined. The sale of animal was generally not made before the current lactation period was over. There were only two cases of early sale. For one, the reason quoted was that one of the legs of the buffalo got broken and it became impossible to maintain the animal. In the other case it was reported that the animal was not cooperating and therefore milching became difficult. In these cases the sales were after three and four months respectively. The time lapsed between the purchase and sale of animal in these 19 cases is presented in Table 6.2.1 below.

Table 6.2.1 : Time lapsed between the purchase and sale of animals : Dairy

Month	3	4	7	8	10	11	12	13	14	15	19	34	Total
No. of Animals sold	1	1	1	1	1	2	3	2	3	3	1	1	20

The reasons for selling the animals were enquired into. Apart from the two cases of early sale mentioned above, there were five beneficiaries who have sold the animal by the time lactation period was getting over; though two of them quoted sickness as the reason for sale. There were three beneficiaries who reported the sale because of economic difficulties. Two of them had no land of theirs and the third had only seven gunthas. Another four beneficiaries reported that the animals became sick and therefore they had sold. One beneficiary sold the animal to purchase another one. The remaining four reported signs of infertility in the animal as the reason for sale. Except for the five cases of sale immediately by time the lactation period was, getting over, in the remaining cases the reasons for sale look genuine.

6.3 Deaths of Animals

Only eight animals were reported to have died; all these were buffaloes. It may be noted that these deaths are not during a year, they are during the reference period that is since the purchase of animal till the date of enquiry. Though we have taken the cases of 1982-83 in the sample, there were 13 beneficiaries who have made purchases prior to 1982-83 but were given the subsidy under IRDP during the year 1982-83. On the basis of 'activity months', average reference period could be said to be 16.77 months. Using this period, the mortality rate works out to be 7.07 per cent per year. Considering very high mortality rates reported in other studies, this is reasonably low.

These eight animals belonged to seven beneficiaries, six owned one each and the seventh owned two animals. All the six beneficiaries received insurance claims but the seventh beneficiary had received claim for only one of the two buffaloes died, till the date of enquiry. Of these eight, three were from Jath and five from Walwa taluka. The time lapsed and the reasons for death for these eight animals are presented in Table 6.3.1 below.

Table 6.3.1 : The Time Lapsed and the Reason for Death for Eight Animals

Sr. No.	Months from date of purchase	Reason for death
1.	1	Sewing Needle swallowed through feed resulting in poisoning and death (Traumatic Pericorditis)
2.	4	Disease of Lever
3.	6	Sewing needle swallowed through feed resulting in poisoning and death (Traumatic Pericorditis)
4.	9	Disease of Lever
5.	11	"
6.	12	Fever
7.	22	Sewing Needle swallowed through feed resulting in poisoning and death (Traumatic Pericorditis)
8.	30	Abortion and death)

6.4 Animals held at the Time of Survey

Of the 81 animals, 20 were sold and 8 died and therefore, at the time of visit there were only 53 animals held by 51

beneficiaries. Whatever are the reasons for sale or death the fact remains that only 65 per. cent of the animals were with the beneficiaries at the time of study. To get the idea regarding the duration for which the animals were held by the beneficiaries, the distribution of animals by the months for which they were held by the beneficiaries is given in Table 6.4.1. The distributions of animals sold and also of animals died are separately shown in the same table.

Table 6.4.1 : Distribution of Animals according to the months for which they were held by the beneficiaries : Dairy

No. of months	Animal held at the time of visit		Animals sold		Animals died		Total
	Jath	Walwa	Jath	Walwa	Jath	Walwa	
Upto 2	-	-	-	-	1	-	1
" 4	-	-	2	-	-	1	3
" 6	-	-	-	-	1	-	1
" 8	1	-	-	2	-	-	3
" 10	1	-	-	1	-	1	3
" 12	-	1	1	4	1	1	8
" 14	2	-	1	4	-	-	7
" 16	-	-	2	1	-	-	3
" 18	11	1	-	-	-	-	12
" 20	12	8	1	-	-	-	21
" 22	-	6	-	-	-	1	7
" 24	-	5	-	-	-	-	5
" 26	-	-	-	-	-	-	-
" 28	-	1	-	-	-	-	1
" 30	-	-	-	-	-	1	1
Above 30	4	-	-	1	-	-	5
TOTAL	31	22	7	13	3	5	81

It need be clarified here that there were six animals which were purchased before 1982-83. These beneficiaries

appeared in the sample as they were in the list of 1982-83 beneficiaries as they had received subsidy during this year. These appear in the month class of 29-30 months and above. Of these six one died and one is sold whereas 4 are still with the beneficiaries. Of the 20 animals sold, five were sold within 10 or less months and the other 15 were held for more than 10 months. At the time of visit there were 31 animals held by the beneficiaries in Jath and 22 in Walwa.

The distribution of the above 51 beneficiaries who held animals at the time of enquiry according to their income without IRDP is given in Table 6.4.2.

Table 6.4.2 : Distribution of Sample Beneficiaries According to Without IRDP Income during 1983-84 (47 cases) Dairy

Income class	No. of beneficiaries		Jath + Walwa
	Jath	Walwa	
Rs.			
Upto 500	-	-	-
" 1000	1	1	2
" 1500	5	1	6
" 2000	3	1	4
" 2500	3	3	6
" 3000	5	6	11
" 3500	2	1	3
" 4000	1	-	1
" 4500	2	2	4
" 5000	2	-	2
" 5500	2	1	3
" 6000	1	1	2
" 6500	2	1	3
" 7000	-	-	-
" 7500	-	1	1
" 8000	-	-	-
" 8500	-	-	-
" 9000	-	1	1
" 9500	-	1	1
" 10000	-	-	-
Above 10000	-	1	1
TOTAL	29	22	51

6.5 Quality of Animals

It has been already mentioned that most of the animals purchased under IRDP were local breed animals. Of the 81 animals purchased by 77 beneficiaries, only 10 were Jersey/Holstein cows, 70 were local buffaloes and one was local cow which is included in local buffaloes for tabulation. The data regarding the age at purchase, at what calving they were purchased and calving interval were examined to have more information on the quality of these 71 animals.

Age at purchase

The age of the animal at the time of purchase was recorded in the questionnaire during the survey. The distribution of animals according to their age at purchase is presented in Table 6.5.1. The animals in Jath were slightly younger on an average than those in Walwa. Considering 5-6 years as the appropriate age for purchase, it is evident from this table that much older animals were purchased by the beneficiaries.

Calving Number at the time of Purchase

At what calving the animal is purchased is important both for yield rate and for future performance. It is generally considered good to purchase animal at the second or third calving and not after. The data in this regard is tabulated and presented in Table 6.5.2.

There were 18 animals purchased at the 4th calving, 5 at the 5th and 1 at the sixth calving. Thus, there were

Table 6.5.1 : Distribution of IRDP Animals according to age at purchase

Age (yrs)	Jath	Walwa	Jath + Walwa
1	-	-	-
2	-	-	-
3	-	1	1
4	3	2	5
5	11	2	13
6	15	11	26
7	2	9	11
8	2	8	10
9	1	1	2
10	-	2	2
11	-	-	-
12	-	1	1
TOTAL	34	37	71

Table 6.5.2 : Distribution of IRDP animals according to calving number at the time of purchase

Calving No.	Jath	Walwa	Jath + Walwa
1	3	-	3
2	6	4	10
3	18	16	34
4	6	12	18
5	1	4	5
6	-	1	1
TOTAL :	34	37	71

24 animals out of 71 which cannot be considered to have been purchased at proper calving. Taking into consideration, the age at purchase and also the calving number at purchase, it is seen that the quality of animals was not satisfactory.

Calving Interval

The data on calving interval in respect of the animals that were held at the time of visit was examined and calving interval was found out for the animals who had two calving during the reference period. There were only 13 such animals, 6 in Jath and 7 in Walwa. The distribution of these 13 animals according to calving interval is given in Table 6.5.3.

Table 6.5.3 : Distribution of 13 animals who had two calvings according to Calving Interval (CI) in months.

Calving Interval	No. of animals
11	1
12	2
14	1
15	3
17	1
19	2
20	2
38	1
TOTAL :	13

Considering the calving interval of 12-15 months to be good, it can be said that the calving interval was undesirably higher in 6 out of 13 animals. One animal had this interval abnormally high of 38 months. High calving interval also reflects bad management practices.

Thus, taking into consideration the age at purchase, calving number of purchase and also the calving interval, it can be said that the quality of animals purchased was not satisfactory.

6.6 Fodder and Feed

Major item of fodder fed to the animals in Jath taluka was jowar stalks grown on own farm or purchased. Only in some cases waste of groundnut plants is reported to have fed. There is hardly any other fodder item appearing to have fed to the animals by the beneficiaries in this taluka. On the other hand in Walwa along with jowar stalks, there are items like sugarcane tops, sugarcane off-shoots, farm grass and also groundnut plants. After harvesting, the groundnut plants are used as fodder, the incidence of this is more in Walwa. The sugarcane off-shoots and farm grass are reported as from own farms only. There are no cases reporting the purchase of these items for feeding the animals by the sample beneficiaries. That means, landless have not fed these to their animals. The prices of jowar stalks were in general higher in Jath than in Walwa. In terms of general availability of fodder Jath taluka is worse placed than Walwa.

The incidence of giving feed like Sugras was higher in Walwa than in Jath; there were 24 beneficiaries who used Sugras in Walwa but only 4 used it in Jath. However, oilcake was used in Jath by 20 beneficiaries whereas only 3 used it in Walwa.

Family Labour

The information on the time spent on the rearing of the animals by the members of the family was collected but it was found that the information was in general unreliable. It was, therefore, not utilized for analysis. In any case for computing the income from the activity, according to the methodology adopted, computations of cost of family labour was not required. The family labour and the enterpreneurial efforts were jointly considered as recipients of the income generated. However, it is of importance to find out and compute the income forgone by the members of the family because of undertaking this activity and consider that as the cost. But there were no cases of reporting such forgone income.

6.7 Income Generation

It has already been explained how the income computations were done for the dairy activity. As explained there, the value of milk, the value of cowdung manure and receipts from the sale of calves, if any, were taken on the receipt side and value of farm grown fodder, cost of purchased fodder and feed, medicines, etc., and the interest paid on the loan were taken on the expenditure side. The data for IRDP

animals was recorded separately and therefore the net income by subtracting the expenditure from the receipts was itself gross incremental income for our purpose. By adjusting for interest paid we get net incremental income from above. The computations of income were carried out for each of the 77 beneficiaries separately and then subsequently the computations at the group level were also done.

It was observed that there is in general difference in milk yield in the two talukas and that there was, of course, a substantial difference between the Jersey/Holstein cows and local breed buffaloes. Therefore we have carried out separate analysis for each taluka and for Jersey/Holstein cows and local buffaloes. Table 6.7.1 gives the results of the group level analysis.

There is only one beneficiary in each taluka with two buffaloes and therefore at the aggregate level per beneficiary per month and per animal per month figures do not differ much. Average net incremental income per beneficiary per month was Rs. 46.68 whereas the same per animal per month was Rs. 45.05 in Jath taluka. These figures for Walwa taluka were Rs. 94.55 and Rs. 90.68 respectively. There is substantial difference between the two talukas in the average gross incremental income and net incremental income.

The differences between these averages are quite large even then they were tested for statistical significance using appropriate t-tests. They were, of course, found statistically

Table 6.7.1: Incremental Income and Capital Output Ratio for Dairy Animals

Item	Taluka 1			Taluka 2			Taluka 1+2		
	Local breed	Cross breed	Total	Local breed	Cross breed	Total	Local breed	Cross breed	Total
1 Number of beneficiaries	33	5	38	36	3	39	69	8	77
2 Number of animals	34	7	41	37	3	40	71	10	81
3 Total animal months	600	122	722	610	65	675	1210	187	1397
4 Total activity months	579	83	662	585	65	650	1164	148	1312
5 Total investment (Rs.)	78940	34460	113400	86562	17355	103917	165502	51815	217317
6 Average investment per animal (Rs.)	2321	4923	2741	2340	3785	2598	2331	5182	2683
7 Total net incremental income (Rs.)	27029	45245	74274	55314	21183	76497	82342	68429	150771

(Continued)

Table 6.7.1: (Continued)

Item	Taluka 1			Taluka 2			Taluka 1+2		
	Local breed	Gross breed	Total	Local breed	Gross breed	Total	Local breed	Gross breed	Total
8 Average net incremental income per beneficiary per month (Rs.)	46.68	569.22	112.19	94.55	325.90	117.68	70.74	462.36	114.92
9 Average net incremental income per animal per month (Rs.)	45.05	387.26	102.87	90.68	325.90	113.33	68.05	365.93	107.92
10 Average instalment per beneficiary per month (Rs.)	39.67	76.75	44.47	49.45	35.38	48.05	44.67	58.58	46.27
11 Average retainable incremental income per beneficiary per month (Rs.)	18.07	521.55	80.78	56.86	321.36	83.31	37.33	433.63	82.00
12 Average investment per beneficiary (Rs.)	2077	6892	2637	2405	5785	2665	2237	6477	2650
13 Capital output ratio	9.80:1	1.10:1	2.65:1	3.52:1	1.50:1	2.67:1	4.99:1	1.24:1	2.69:1

significantly different even at one per cent level of significance. It is also important to note that the coefficient of variation for net incremental income per animal per month in the two talukas were also placed at 104.54 per cent and 54.04 per cent in Jath and Walwa respectively. This indicates clearly the high variability in the incomes in Jath and comparatively lower variability in Walwa. Thus the incremental income from dairy activity is substantially higher in Walwa.

The above discussion was with reference to local breed buffaloes. The corresponding figures for Jersey/Holstein cows are also computed and presented in the same Table 6.7.1. In Jath, out of the 5 beneficiaries, two had two cows each whereas in Walwa all the three beneficiaries had one cow each. The difference is not so wide still the figure for Jath is higher. However, the number of cows being so small no meaningful conclusion could be drawn regarding the differences in earnings in the two talukas from cross breed cows.

Average retainable income was Rs. 18.07 per beneficiary per month in Jath and Rs. 56.86 in Walwa talukas for the local buffaloes. Retainable income is also naturally higher in Walwa. Average retainable income is computed, by subtracting average repayment instalment from the average gross incremental income.

Incremental capital output ratio in Jath for buffaloes was 9:80:1 and in Walwa it was 3.52:1. These ratios for cross breed cows are 1.10:1 in Jath, 1.50:1 in Walwa. At the aggregate level for the buffaloes and cows together and the two

talukas combined, this ratio works out to be 2.69:1.

It is needless to say that only with cross breed animals the dairy business would lead to substantial income generation. The retainable income for the beneficiaries is too low with local breed buffalo keeping.

6.8 Performance by Different Groups of Beneficiaries Milk Yield

The data on milk yield is presented in Table 6.8.1 considering all the purchased animals under IRDP. Average milk yield per animal per month was 72.78 litres in Jath and 72.03 litres in Walwa. The yield rate of milk is so close in the two talukas for the local buffaloes. However, there is substantial difference between the lactation duration in the two talukas. The difference in the length of lactation period can be roughly seen through the ratio of total lactation months and total dry months at the aggregate level. This ratio (lactation months/dry months) works out to be 0.9868 for Jath and 1.7727 for Walwa. Thus the difference in milk production in the two talukas is not reflected in daily average but in the duration of lactation period. The comparison of the length of lactation period could also be done by directly finding out the average lactation period per calving in the two talukas.

Milk yield is one of the factors in explaining the differentials in the incomes from dairy activity in the two talukas. The other important factor is the cost of the fodder/feed, etc. The data on these items are also available in the Table 6.8.2. It can be seen that the average cost per animal

Table 6.8.1: Aggregate Data on Milk Production and Fodder : Dairy

Item	Taluka 1			Taluka			Taluka 1+2		
	Local breed	Cross breed	Total	Local breed	Cross breed	Total	Local breed	Cross breed	Total
1 Number of beneficiaries	33	5	38	36	3	39	69	8	77
2 Number of animals	34	7	41	37	3	40	71	10	81
3 Total lactation period (months)	298	80	378	390	49	439	688	129	817
4 Total dry period (months)	302	42	344	220	16	236	522	58	580
5 Total animal months	600	122	722	610	65	675	1210	187	1397
6 Total milk production (lit.)	21690	17929	39619	28090	9380	3747	49780	27309	77089
7 Average milk yield per animal per month (lit)	72.78	224.11	104.81	72.03	191.43	85.33	72.35	211.70	94.35
8 Average expenditure per animal per month									
i) Farm Fodder	20.68	9.43	18.72	8.87	16.92	9.64	16.62	12.03	14.27
ii) Purchased feed fodder etc.	49.60	82.13	55.26	49.72	78.62	52.50	49.66	80.91	53.91
Total (i)+(ii)	70.28	91.56	73.98	58.59	95.45	62.14	64.28	92.94	68.18

per month was Rs. 70.28 in Jath and Rs. 58.59 in Walwa for local buffaloes. Thus the cost in Walwa is lower. It is worth examining this aspect little more. The break up of this cost into farm fodder and purchased fodder, feed, etc., is also given which reveals that the average costs on purchased fodder, feeds, etc., are more or less the same in the two talukas and the difference is in the costs of farm fodder. The cost of farm fodder fed to the animals is lower in Walwa taluka than in Jath taluka. Considering the conditions in the two talukas this looks mysterious and needs further probing. First of all the prices of fodder are higher in Jath taluka and that means the equality of average costs on purchased fodder, feed, etc., does not mean the equality of quantities fed. Another point comes out of imputation of farm fodder. Only the items like jowar stalk, sugarcane tops, harvest waste of various cereals and pulses were imputed as the market prices existed for these items. The items like farm grass, sugarcane off-shoots, etc., were not imputed as these are not marketed items. It was found that the incidence of imputable items was more in Jath and that of non-imputable items was more in Walwa taluka. This has resulted in lower average value of farm fodder fed in Walwa. In brief this means that the animals in Walwa were better fed than in Jath. However, in terms of the cost calculations what is presented stands.

For detailed examination of the differences in performance in this sector between different groups we have considered

only those animals which were held at the time of visit. There were 53 such animals of which 6 were Jersey/Holstein cows which are distinctly different than the local buffaloes in every respect. Therefore, keeping them out this analysis is carried out only for 47 local breed animals. In each taluka these are classified according to the beneficiaries having land and not having land and further they are classified into those for whom feed like sugras or oilcake was fed and for whom not fed, thus making in all eight classes. In one of these eight classes there was no frequency. For each of these classes, the data on number of animals, number of months, milk yield, etc., is presented in Table 6.8.2. One of the buffaloes in Jath taluka suffered abortion and therefore there was no lactation during the reference period, and as such this is kept out from the analysis. Thus, 46 local breed animals' data is analysed for looking into whether there are differences in different groups. The following table gives the data for these eight groups. Only one animal was held by each beneficiary and therefore number of animals tally with the number of beneficiaries in each of these groups.

The first variable studied is 'milk yield per animal per lactation month'. In each group for each animal this yield is computed and the average yield of various pairs of groups is statistically tested.

For testing the differences between the averages of the various pairs of groups the t-test were used. The number

Table 6.8.2 : Groupwise Data on Milk Yield in Litres : Dairy

Group Sr.No.	Type of Beneficiary	No. of Animals	Activity Months		Average Milk production per animal per wet month
			Wet	Dry	
<u>Jath</u>					
	Land owner				
1	Feed used	11	119	135	86.70
2	Feed not used	5	38	58	58.82
	Gr. 1+2	16	157	193	79.95
	Landless				
3	Feed used	6	66	32	55.87
4	Feed not used	3	20	45	58.5
	Gr. 3+4	9	86	77	56.49
	Taluka Total (Gr. 1+2+3+4)	25	243	270	71.71
<u>Walwa</u>					
	Land owner				
5	Feed used	13	165	99	74.68
	Feed not used	-	-	-	-
	Gr. 5+6	13	165	99	74.68
	Landless				
7	Feed used	7	73	66	63.83
8	Feed not used	1	14	8	46.07
	Gr. 7+8	8	87	74	60.97
	Taluka Total (Gr. 5+6+7+8)	21	252	173	69.95
	Gr. 1+3	17	185	167	75.80
	Gr. 5+7	20	288	165	71.38
	Gr. 1+2+5+6	29	322	292	77.25
	Gr. 3+4+7+8	17	173	151	58.76
	Gr. 1+3+5+7	37	423	332	73.29
	Gr. 2+4+6+8	9	72	111	56.25
	Gr. 2+4	8	58	103	58.71

of animals is small in each group; the groups with less than five animals were not taken up for comparison. As explained above the 46 animals were divided into eight groups. Various pairs of these eight groups are considered for comparison, for example, group of animals owned by landowners who gave feed and who do not give, land owners group in taluka Jath and Walwa, etc. various meaningful combination of these groups are also considered, for example, group 1 and 2 with group 5 and 6 that means land owners in Jath compared to land owners in Walwa and so on. All these comparisons are listed in the following table along with the relevant results of the t-test.

The t-test used for the purpose has three aspects in this exercise, namely, (i) there are unequal observations in the groups to be compared, (ii) the variance are unknown and are to be estimated from the sample data and (iii) the number of observations are small. In consideration of (i) and (ii) the following t-statistic is used.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

where \bar{X}_1 and \bar{X}_2 are averages of the two groups, S_1^2 and S_2^2 are estimates of the variances of the two groups based on the samples and N_1 and N_2 the size of the sample in group 1 and group 2 respectively.

The consequence of (iii) above is that the degrees of freedom of the t-distribution are not $N_1 + N_2 - 2$ as in the case of large sample. The degrees of freedom are given by the following formula.*

$$n = \frac{\left(\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2} \right)^2}{\left(\frac{s_1^2}{N_1} \right)^2 \frac{1}{N_1+1} + \left(\frac{s_2^2}{N_2} \right)^2 \frac{1}{N_2+1}} - 2$$

The above value in general will not be an integer, but usually a good approximation can be obtained by using the nearest integer.

It may be noted here that the lactation month being different for different animals in any group, the group average has to be calculated by using weighted average method and for the same reason the computing the variance, the method of weights is to be used.

This exercise was carried out to find out whether the milk yield per month was different for the animals held by the landowner beneficiaries and the landless; those who gave feed like sugras or oilcake and who did not give such feed to their animals and also whether there were differences in the

* Walker Helen M. and Lev J., Statistical Inference, Henry Holt and Co., New York, 1953, p. 158. Also refer to Cramer Harald, The Elements of Probability Theory, John Wiley and Sons, 1955, p. 234.

milk yield per month between the two talukas Jath and Walwa.

Within Jath taluka, the landowners' group (Group 1+2) average was 79.95 litres per month per animal and that of landless (Group 3+4) was 56.49 litres; the difference was found statistically significant. Considering those who gave feed to the animals, the two groups (Group 1 and 3) of land owners and landless differed; their averages were 86.70 and 55.87 litres respectively. This comparison also gave statistically significant result. In line with this, the comparison of land owners and landless who did not give feed was not made because the group of landless who did not use feed had only 3 animals and no useful inference can be drawn on the basis of this. Thus, within Jath the land owners had better milk yield per month from their buffaloes than the landless.

Table 6.8.3 : t-values for Group Comparisons in Milk Yield : Dairy

Groups compared	No. of obs		Degrees of freedom	t-values
	N ₁	N ₂		
1:2	11	5	13	2.73*
1:3	11	6	16	3.27*
(1+3):(5+7)	17	20	27	0.62
(1+2):(3+4)	16	9	24	2.93**
1:5	11	13	18	1.42
5:7	13	7	16	1.57
3:7	6	7	12	0.99
(5+6):(7+8)	13	8	18	2.02*
(3+4):(7+8)	9	8	16	0.64
(1+2):(5+6)	16	13	27	0.68
(1+2+5+6):(3+4+7+8)	29	17	44	3.47**
(1+2+3+4):(5+6+7+8)	25	21	44	0.93
(1+3+5+7):(2+4+6+8)	37	9	18	2.83**
(1+3):(2+4)	17	8	23	2.08*

* = Significant at 5%

** = Significant at 1% level of significance.

In Walwa, the group average of land-owners (Group 5+6) was 74.68 litres and that of landless (Group 7+8) 60.97 litres, the two were found statistically significantly different on the basis of t-test. However, landowners and landless who gave feed (Group 5 and 7) did not have the statistically significant difference in their averages. Landowners' average was 74.68 litres and that of landless group 63.83 litres. The t-value was not significant but was close to critical level. There was only one case of not using feed in Walwa taluka and therefore Group 6 and Group 8 could not be used separately for comparisons. Thus, on the whole there is evidence that the landowners obtained higher milk yield per lactation month from their animals than the landless.

If we compare landowners in both the talukas together (Group 1+2+5+6) with the landless (Group 3+4+7+8) the averages are 77.25 and 58.76 respectively and the difference is statistically significant. Thus, even at the aggregate level of two talukas the landowners have better yield than the landless.

In Jath the average of those who gave feed like sugras or oilcake (Group 1+3) and who did not (Group 2+4) were 75.80 and 58.71 litres and the difference was found statistically significant. Thus, the milk yield was higher by feeding sugras or oilcake. Within the group of landowners, the average for the group who gave feed (Group 1) was 86.70 and who did not give feed (Group 2) was 58.82 and the difference of these averages was also significant. The comparison between such two groups within landless was not done because there were only 3 observations in the landless group who did

not use feed (Group 4).

In the case of Walwa as all beneficiaries except one used feed, the comparison between feed users and non-users was not possible.

For the two talukas together, the group of those using feed and those not using feed (Group 1+3+5+7 and Group 2+4+6+8) have the averages of 73.29 and 56.25 respectively and the t-statistics was significant. Thus, on the whole the animals who were given feed had better milk yield than those who were not given.

However, the differences in milk yield between the two talukas for the similarly placed animals did not come out statistically significant. For example, the averages for the landowners in Jath (Group 1+2) and Walwa (Group 5+6) were 79.95 litres and 74.68 litres but the difference was not statistically significant. The average in Jath is higher contrary to the general expectation though the difference is not significant. Within the landowners, the two groups who used feed in the two talukas (Group 1 and 5) were compared. The average in Jath was higher at 86.70 litres and in Walwa 74.68 litres. The difference has not been found statistically significant.

Within the landless who had feed in Jath (Group 3) had average of 55.87 and those in Walwa (Group 7) had 63.83 litres. Though Walwa had higher average, the difference was not significant.

All those who used feed in Jath (Group 1+3) and all those who used feed in Walwa (Group 5+7) had their group averages 75.80 litres and 71.36 litres and the difference was not statistically significant. The group of landless (Group 3+4) in Jath had average of 56.49 litres and the same group in Walwa (7+8) had average of 60.97. Walwa had higher average but it was not found statistically significant.

Similarly at the aggregate level taking all the cases of Jath in one group (Group 1+2+3+4) and all the cases of Walwa in one group (Group 5+6+7+8) the difference did not come out statistically significant. Thus, the differences between the two talukas did not come out of the milk data as far as the milk yield per lactation month per animal is concerned.

Retainable Income

The retainable income for each beneficiary household is computed by adjusting for the instalments payable. The distribution of beneficiary households according to the retainable income per month is given in Table 6.8.4. Here, all 77 beneficiary are considered. There are 23 cases who had negative retainable income; that means they were worse off by undertaking IRDP activity. Of these 23, seventeen were in Jath and 6 in Walwa. Some suffered quite high losses; there were two cases from Jath whose loss works out to be between Rs. 125 to Rs. 150 per month. Of the remaining 44 beneficiaries with positive retainable income, 27 had this

Table 6.8.4 : Distribution of Sample beneficiaries according to retainable income per month : Dairy

Income Class Rs.	No. of beneficiaries		
	Jath	Walwa	Jath+Walwa
- 150 to -125	2	-	2
- 125 to -100	-	-	-
- 100 to -75	1	-	1
- 75 to -50	3	-	3
-50 to -25	6	2	8
-25 to 0	5	4	9
+ ve upto 25	8	6	14
" 50	3	10	14
" 75	3	3	6
" 100	1	4	5
" 125	1	2	3
" 150	1	2	3
" 175	1	3	4
" 200	-	1	1
" 225	-	-	-
" 250	2	-	2
" 275	-	1	1
" 300	-	-	-
" 325	-	-	-
" 350	-	-	-
" 375	1	-	1
" 400	-	-	-
" 425	-	-	-
" 450	-	1	1
TOTAL	38	39	77

income upto Rs. 50 only. There are 5 cases which have retainable income of above Rs. 200 per month; four of them had Jersey/Holstein cows and the fifth beneficiary had two buffaloes.

The similar distribution for the 51 beneficiaries who held the animals at the time of survey is presented in Table 6.8.5. There are 13 cases of negative retainable income in Jath and 6 in Walwa. Thus, of the total 23 negative cases as many as nineteen held the animals.

The type of comparison between various groups done in the case of milk yield per month per animal was not done for retainable income because in some groups there are quite a number of negative values. For example, in the group of landless in Jath who did not use feed (Group 4), each one had negative retainable income. There were 5 landowners who did not use feed (Group 2) and three of them had negative retainable income. Landless who used feed were 6 and 3 of them received negative retainable income. Therefore, only two pairs of groups were considered for comparison, namely, (i) all landowners in Jath compared to all landowners in Walwa and (ii) all beneficiaries in Jath compared to all beneficiaries in Walwa. For analysing the differences between the groups in the retainable income per month, the same t-test procedure used for milk yield per month per animal was used.

Table 6.8.5 : Distribution of 51 sample beneficiaries in Dairy Sector who held the animals at the time of survey according to retainable income per month

Income Class Rs.	No. of beneficiaries		Jath + Walwa
	Jath	Walwa	
-125 to -100	-	-	-
-100 to -75	1	-	1
-75 to -50	3	-	3
-50 to -25	5	2	7
-25 to 0	4	4	8
+ ve upto 25	8	5	13
" 50	3	6	9
" 75	2	-	2
" 100	1	2	3
" 125	-	-	-
" 150	-	-	-
" 175	-	1	1
" 200	-	1	1
Above 200	2	1	3
Total :	29	22	51

Table 6.8.6 : Distribution of sample beneficiaries according to net incremental income per month (Dairy)

Income class Rs.	Distribution of beneficiaries		Total (Jath+Walwa)
	Jath	Walwa	
-ve cases			
-75 to -50	1	-	1
-50 to -25	2	-	2
-25 to 0	1	-	1
Sub total (-ve)	4	-	4
+ve cases			
Nil	1	-	1
Upto 25	5	2	4
" 50	5	3	11
" 75	8	4	12
" 100	5	7	12
" 125	2	7	9
" 150	2	3	5
" 175	1	4	5
" 200	1	3	4
" 225	1	1	2
" 250	-	3	3
" 275	-	-	-
" 300	-	-	-
" 325	-	-	-
" 350	-	-	-
" 375	-	1	1
" 400	-	-	-
" 425	1	-	1
" 450	1	-	1
" 475	-	-	-
" 500	-	-	-
Above 500	1	2	-
Sub Total (+ve)	34	39	73
Grand total	38	39	77

Table 6.8.7 : Distribution of Sample beneficiaries according to Net Incremental Income per month (Dairy)

Income Class Rs.	Distribution of beneficiaries		Total (Jath+Walwa)
	Jath	Walwa	
-ve cases			
-75 to -50	-	-	-
-50 to -25	2	-	2
-25 to 0	1	-	1
Sub-total (-ve)	3	-	3
+ve cases			
Nil	1	-	1
Upto 25	4	1	5
" 50	5	4	9
" 75	6	4	10
" 100	5	5	11
" 125	1	2	3
" 150	2	1	3
" 175	-	2	2
" 200	-	-	-
" 225	-	1	1
" 250	-	1	1
" 275	-	-	-
" 300	-	-	-
" 325	-	-	-
" 350	-	-	-
" 375	-	-	-
" 400	-	-	-
" 425	-	-	-
" 450	1	-	1
" 475	-	-	-
" 500	-	-	-
Above 500	1	1	2
Sub-total	26	22	48
Grand Total	29	22	51

The negative cases are quite dominating, the group average for (i) above in Jath taluka worked out negative while that for Walwa it was positive. The difference was significant showing Walwa to be better. The results for (ii) above were similar.

The analysis then was carried out by dropping the negative cases. Group average of positive cases of land-owners in Jath was 27.53 and that for Walwa 49.42. The average for Walwa is quite high and the difference was also found statistically significant. The group average of positive cases of all beneficiaries in Jath was 28.25 and in Walwa 53.49. The t-test in this case also gave significant results.

Thus, on the basis of retainable income the beneficiaries in Walwa taluka had much better results than those in Jath. The dairy business works out better in Walwa. Though the differences between the two talukas are not significant when milk yield per month is considered, the retainable income in Walwa works out better. This happens mainly due to cheaper fodder, availability of farm grass, sugarcane off-shoots, etc., better ratio of wet/dry months and also slightly better price.

SC/ST Beneficiaries

There were as many as 19 scheduled caste beneficiaries who purchased dairy animals under IRD programme, out of the 77 beneficiaries in this sector, that is about 25

per cent. Five beneficiaries were in Jath and 14 in Walwa. One beneficiary in Jath had two animals hence there were 20 animals held by scheduled caste beneficiaries. Of these 20, ten were sold, one died and only 9 were held by the beneficiaries at the time of visit. Thus, there is a large scale selling of animals in this category as out of 20 animals sold in all, 10 are sold by scheduled caste beneficiaries.

The milk yield per month in the cases of animals held by scheduled caste beneficiaries was in most of the cases lower than the average. The retainable income in all the cases except two was negative. Thus, the scheduled caste beneficiaries' performance in dairy sector was really poor.

6.9 Crossing the Poverty Line

As is clear from the results presented earlier in terms of retainable income the performance in dairy activity is not very encouraging in providing additional income to the beneficiaries. Generation of a sizeable positive retainable income is important to improve the economic conditions of the poor. Whether the family would cross the poverty line or not would depend upon its position in terms of its income without IRDP in relation to the poverty line. If there are two families with sizeable positive retainable income of equal amount, one which is closer to the poverty line would cross it but one which is away from the poverty line would not be able to cross it. Even then the analysis to find out whether family has crossed the poverty line is useful to carry out.

As stated earlier, considering the income without IRDP during the year 1983-84, there were 25 families below the poverty line in Jath and 26 in Walwa. Considering only those who held animals at the time of survey, 20 were below poverty line in Jath out of 29 families and 17 were below poverty line in Walwa out of 22. Only one family in Walwa taluka has moved above the poverty line during 1983-84.

The distribution of beneficiaries according to income without IRDP and retainable income gives the idea as to how the incomes of the families moved due to IRDP activity. However, the beneficiaries were cross tabulated by taking income without IRDP and income inclusive of IRDP during the year 1983-84 and the results presented in Table 6.9.1 and 6.9.2.

Table 6.9.1: Frequency Distribution of 29 Beneficiaries in Jath Taluka Who Held Animals at the Time of Visit, According to Income Without IRDP and With IRDP : Dairy

Without IRDP Income Class	With IRDP Income Class										
	Upto 500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
Upto 500	-	-	-	-	-	-	-	-	-	-	-
" 1000	-	-	-	2	-	-	-	-	-	-	-
" 1500	1	1	-	3	-	-	-	-	-	-	-
" 2000	-	-	1	1	1	-	-	-	-	-	-
" 2500	-	-	-	-	2	1	-	-	-	-	-
" 3000	-	-	-	-	2	2	1	-	-	-	-
" 3500	-	-	-	-	-	1	1	-	-	-	-
" 4000	-	-	-	-	-	-	1	-	-	-	-
" 4500	-	-	-	-	-	-	-	-	1	1	-
" 5000	-	-	-	-	-	-	-	1	-	1	-
" 5500	-	-	-	-	-	-	-	-	-	-	1
" 6000	-	-	-	-	-	-	-	-	-	-	-
" 6500	-	-	-	-	-	-	-	-	-	-	-
" 7000	-	-	-	-	-	-	-	-	-	-	-
" 7500	-	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	-	-
" 9000	-	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-	-
" 10000	-	-	-	-	-	-	-	-	-	-	-
Above 10000	-	-	-	-	-	-	-	-	-	-	-
Total	1	1	1	5	5	4	3	1	1	2	1

(Continued)

Table 6.9.1: (Continued)

Without IRDP Income Class	With IRDP Income Class										
	6000	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	Total
Upto 500	-	-	-	-	-	-	-	-	-	-	1
" 1000	-	-	-	-	-	-	-	-	-	-	5
" 1500	-	-	-	-	-	-	-	-	-	-	3
" 2000	-	-	-	-	-	-	-	-	-	-	3
" 2500	-	-	-	-	-	-	-	-	-	-	3
" 3000	-	-	-	-	-	-	-	-	-	-	5
" 3500	-	-	-	-	-	-	-	-	-	-	2
" 4000	-	-	-	-	-	-	-	-	-	-	1
" 4500	-	-	-	-	-	-	-	-	-	-	2
" 5000	-	-	-	-	-	-	-	-	-	-	2
" 5500	-	-	-	-	-	1	-	-	-	-	2
" 6000	-	1	-	-	-	-	-	-	-	-	1
" 6500	1	-	-	-	-	-	-	-	-	1	2
" 7000	-	-	-	-	-	-	-	-	-	-	-
" 7500	-	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	-	-
" 9000	-	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-	-
" 10000	-	-	-	-	-	-	-	-	-	-	-
Above 10000	-	-	-	-	-	-	-	-	-	-	-
Total	1	1	-	-	-	1	-	-	-	1	29

Table 6.9.2: Frequency Distribution of 21 Beneficiaries in Walwa Taluka Who Held Animals at the Time of Visit According to Income Without IRDP and With IRDP : Dairy

Without IRDP Income Class		With IRDP Income Class										
		Upto 500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
Upto	500	-	-	-	-	-	-	-	-	-	-	-
"	1000	-	1	-	-	-	-	-	-	-	-	-
"	1500	-	-	-	1	-	-	-	-	-	-	-
"	2000	-	-	-	-	1	-	-	-	-	-	-
"	2500	-	-	-	1	-	1	-	-	1	-	-
"	3000	-	-	-	-	1	2	1	-	1	1	-
"	3500	-	-	-	-	-	-	-	-	1	-	-
"	4000	-	-	-	-	-	-	-	-	-	-	-
"	4500	-	-	-	-	-	-	-	1	-	-	-
"	5000	-	-	-	-	-	-	-	-	-	-	-
"	5500	-	-	-	-	-	-	-	-	-	-	1
"	6000	-	-	-	-	-	-	-	-	-	-	-
"	6500	-	-	-	-	-	-	-	-	-	-	-
"	7000	-	-	-	-	-	-	-	-	-	-	-
"	7500	-	-	-	-	-	-	-	-	-	-	-
"	8000	-	-	-	-	-	-	-	-	-	-	-
"	8500	-	-	-	-	-	-	-	-	-	-	-
"	9000	-	-	-	-	-	-	-	-	-	-	-
"	9500	-	-	-	-	-	-	-	-	-	-	-
"	10000	-	-	-	-	-	-	-	-	-	-	-
Above 10000		-	-	-	-	-	-	-	-	-	-	-
Total		-	1	-	2	2	3	1	1	4	1	1

(Continued)

Table 6.9.2: (Continued)

Without IRDP Income Class		With IRDP Income Class										
		6000	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	Total
Upto	500	-	-	-	-	-	-	-	-	-	-	-
"	1000	-	-	-	-	-	-	-	-	-	-	1
"	1500	-	-	-	-	-	-	-	-	-	-	1
"	2000	-	-	-	-	-	-	-	-	-	-	1
"	2500	-	-	-	-	-	-	-	-	-	-	3
"	3000	-	-	-	-	-	-	-	-	-	-	6
"	3500	-	-	-	-	-	-	-	-	-	-	1
"	4000	-	-	-	-	-	-	-	-	-	-	-
"	4500	-	-	-	-	-	-	-	-	-	-	2
"	5000	-	-	-	-	-	-	-	-	-	-	-
"	5500	-	-	-	-	-	-	-	-	-	-	1
"	6000	1	-	-	-	-	-	-	-	-	-	1
"	6500	-	-	1	-	-	-	-	-	-	-	1
"	7000	-	-	-	-	-	-	-	-	-	-	1
"	7500	-	-	-	-	1	-	-	-	-	-	1
"	8000	-	-	-	-	-	-	-	-	-	-	-
"	8500	-	-	-	-	-	-	-	-	-	-	-
"	9000	-	-	-	-	-	-	-	-	1	-	1
"	9500	-	-	-	-	-	-	1	-	-	-	1
"	10000	-	-	-	-	-	-	-	-	-	-	-
Above 10000		-	-	-	-	-	-	-	-	-	1	1
Total		1	-	1	-	1	-	-	1	1	1	22

CHAPTER VII
MINOR IRRIGATION

7.1 Sample Beneficiaries

Minor irrigation is another important sector for which the loans were distributed under IRDP in Sangli district. During the year 1982-83 there were 210 beneficiaries who were given loan for minor irrigation under IRDP in Jath taluka and there were 56 in Walwa taluka. We have taken 35 beneficiaries in the sample from Jath and 21 beneficiaries from Walwa taluka.

Land Holding

The distribution of beneficiaries according to landholding is given in Table 7.1.1 for each taluka separately. Maximum landholding was 7 acres in Jath with two beneficiaries holding 7 acres each the same in Walwa was 4 acres 37 gunthas which was held by one beneficiary. Minimum holding in Jath was 22 gunthas while in Walwa it was 1 acre. Number of beneficiaries having landholding more than 1 acre and upto 4 acres was 21 in Jath and 19 in Walwa making the total of 40 out of 56 beneficiaries which is about 71.43 per cent. Average landholding was 3 acres 27.9 gunthas in Jath and 3 acres 0.9 gunthas in Walwa making the overall average for the two talukas equal to 3 acres 17.8 gunthas.

In Jath taluka eleven beneficiaries had irrigation before they took IRDP loan. Four of them took finance for pipe line, two for pumpset, two for repair of well and three for repair of well and pumpset. There were two beneficiaries in Walwa who had irrigation before they took IRDP finance. Each of them

Table 7.1.1 : Distribution of beneficiaries according to land-holding : Minor Irrigation

Land holding acres	Acre-Gunthas					
	Jath		Walwa		Jath+Walwa	
	No. of cases	Total land holding	No. of cases	Total land holding	No. of cases	Total land holding
Upto 1	1	0-22	1	1-00	2	1-22
2	7	13-06	6	10-37	13	24-03
3	7	19-20	5	14-25	12	34-05
4	7	26-20	7	27-20	14	54-00
5	7	33-30	2	9-17	9	43-07
6	4	22-20	-	-	4	22-20
7	2	13-20	-	-	2	13-20
Total	35	129-18	21	63-19	56	192-37

were receiving water through cooperative lift irrigation scheme; one of the two had taken IRDP finance for new well and the other one for new well and pumpset to bring more area under irrigation. They continued using the lift irrigation facility. There were thirteen beneficiaries who had irrigation before they took IRDP finance had increased their land under irrigation.

SC/ST beneficiaries

There were only three scheduled caste beneficiaries and one scheduled tribe beneficiary in Jath. There was none from this category in Walwa. These four beneficiaries in Jath belonged to the above-mentioned group of beneficiaries who had

irrigation before taking IRDP finance. Two of them took finance for pipeline, one for pumpset and one for repair to well.

Income without IRDP

The distribution of beneficiary families according to their income without IRDP during the year 1983-84 is presented in Table 7.1.2. There is wide variation in the incomes of these families. There were 23 families in Jath with income equal to or less than Rs.5000 and 12 families with income more than Rs.5000 while in Walwa only 7 families had income equal to or less than Rs.5000 and 14 families had income above Rs.5000. The beneficiaries in Walwa were better off than those in Jath. There were as many as 7 beneficiaries whose income without IRDP was more than Rs.10,000 of which 3 were in Jath and 4 in Walwa.

Extent of Misclassification

After classifying these families according to below poverty line or above poverty line by comparing their income without IRDP during the year 1983-84 with the poverty line based on the number of members of the family, it was found that out of 35 beneficiaries in Jath 21 were below poverty line and 14 were above poverty line. The position in Walwa was that ten beneficiaries were below poverty line and eleven were above poverty line. Thus, considering the two talukas 25 beneficiaries or 44.64 per cent of beneficiaries were wrongly classified as below poverty line and were given IRDP benefit.

7.2 Purpose and year of sanction

This sample consists of cases of new well, electric/diesel pumpset, repair to old well and pipe-lines. In some

Table 7.1.2 : Distribution of sample beneficiaries according to without IRDP income during 1983-84 : Minor Irrigation.

Income class Rs.	Number of beneficiaries		Total Jath+Walwa
	Jath	Walwa	
Upto 500	2	-	2
" 1000	-	-	-
" 1500	2	1	3
" 2000	2	2	4
" 2500	1	-	1
" 3000	4	1	5
" 3500	5	-	5
" 4000	3	1	4
" 4500	2	2	4
" 5000	2	-	2
" 5500	2	-	2
" 6000	2	4	6
" 6500	1	-	1
" 7000	1	-	1
" 7500	1	-	1
" 8000	-	-	-
" 8500	-	2	2
" 9000	1	2	3
" 9500	-	-	-
" 10000	1	2	3
Above 10000	3	4	7
Total	35	21	56

cases there is a single purpose whereas in some cases there are two or three of the above purposes. The distribution of beneficiaries according to these categories of purpose is presented in Table 7.2.1. There are 23 cases of new wells and pumpsets and 12 cases of new wells. These are the major categories; the other frequencies are small.

Table 7.2.1 : Distribution of beneficiaries according to category : Minor Irrigation

Category	Num of beneficiaries		
	Jath	Walwa	Total
1. New well	11	2	13
2. Well repairs	5	-	5
3. Pumpsets	5	1	6
4. New well + pumpsets	5	18	23
5. Well repair + pumpset	4	-	4
6. Pipeline	4	-	4
7. Well repair + pumpset + pipeline	1	-	1
Total	35	21	56

It was explained in the section on methodology that the list of 1982-83 beneficiaries would contain all those who were paid subsidy claims during the year 1982-83 and that in the case of minor irrigation, because the disbursement is in

instalments this list would also contain beneficiaries who were sanctioned loan earlier than 1982-83. This is more so with the lending by the Land Development Bank. Therefore, it is necessary to know the position of these 56 beneficiaries in terms of the year of initial sanction of loan. Distribution of these 56 beneficiaries according to this is presented in Table 7.2.2.

Table 7.2.2 : Distribution of beneficiaries according to the initial year of sanction of loan

Year	Number of beneficiaries		
	Jath	Walwa	Total
1979-80	-	1	1
1980-81	9	12	21
1981-82	3	7	10
1982-83	23	1	24
Total	35	21	56

It may be mentioned here that there were 55 cases of loan for minor irrigation but one of them was a joint case with two families having given a loan for a common new well. We have, naturally, obtained the information from both these families and hence the number of beneficiaries has been taken as 56. The amount of investment, subsidy, interest, etc., is properly distributed and there is no double counting.

Of these 56 beneficiaries, 24 were sanctioned loan during the year 1982-83, 10 in the year 1981-82, 21 during 1980-81 and only one during the year 1979-80. On this background, it is clear that the irrigation would have started at different time for different beneficiaries from the sources created under IRDP assistance.

7.3 Success and Failure

The distribution of beneficiaries according to the season and year from when the water was available for irrigation is presented in Table 7.3.1.

Table 7.3.1 : Distribution of beneficiaries according to season and starting irrigation

Season		Frequency
1980-81	Kharif	1
	Rabi	-
1981-82	Kharif	8
	Rabi	18
1982-83	Kharif	2
	Rabi	6
1983-84	kharif	7
	Rabi	6
1984-85	Kharif	1
	No irrigation	7
Total		56

In 48 cases the irrigation facility was being used. Water was not yet available in seven cases and in one case water was available from April 1984 in respect of which benefit was not accrued during the reference period.

Of these seven cases, four received all the instalments of loan. Each one has a different characteristic worth mentioning. One case was for new well which was dug at the spot identified by GDA authorities. The beneficiary took the instalments of loan as and when the work reached the specified stages. But the water was not struck and he is burdened with loan and its interest. He has applied for loss compensation. Second was a case of repair to old well which did not succeed in spite of increasing the depth considerably. In the third case of loan for pumpset, the beneficiary managed to get the IKDP assistance though there was no water in his well. The fourth case was a peculiar one. He obtained loan for new well and pumpset. The well was dug 20 feet deep and then bored 25 feet further. The beneficiary obtained all the instalments for digging well and finally for the pumpset which he fitted on the well. But the water was not sufficient for irrigation and he could not irrigate any land through this well. However, he removed the pump and made an arrangement with the neighbouring farmer on whose well the pump was fitted and this beneficiary cultivated rabi jowar on $4\frac{1}{2}$ acres during 1983-84. Strictly speaking there is incremental income accrued to the investment in pumpset, though there was not enough water in his well.

Another three cases were for new well and pumpset. None of these three have taken the instalments in respect of pumpset. In the two cases the water is not yet struck. They propose to continue their efforts. The third case is a peculiar failure. The well which was dug half way through was filled back with soil by his relatives because they had dispute between them in regards to the ownership of land.

Irrigation Achieved

Keeping the above failure eight cases separate, there remain 27 cases in Jath who were able to bring land under irrigation due to IRDP assistance. Of these 27, eleven had some irrigation earlier and they have brought additional land under irrigation while the other sixteen had irrigation newly. In Walwa there were only 2 beneficiaries who had irrigation earlier and had increased their irrigated land; the other 19 had it newly irrigated. The distribution of these 27 cases of Jath and 21 cases of Walwa according to landholding is given in Table 7.3.2. In the same table for each landholding class the total net area irrigated before IRDP assistance and due to IRDP assistance is also presented.

7.4 Income Generation

In terms of amount of investment, this is a sector with maximum investment per beneficiary. Average lending per beneficiary in Sangli district as a whole was Rs.8021 and average subsidy was Rs.1755 making the average capital investment of Rs.9776 per beneficiary during 1982-83. For the sample

Table 7.3.2 : Distribution of beneficiaries according to landholding : Minor Irrigation

Land- hold- ing acres	No. of cases	Total land- hold- ing	Net area irrigated			Number of failure
			(Acres-gunthas)			
			Before Cases	IRDP Area	Due to IRDP	
Upto 1	1	0-22	1	0-10	0-12	-
Upto 2	5	9-06	2	1-00	4-30	2
Upto 3	5	14-00	3	3-20	10-00	2
Upto 4	6	23-00	2	3-20	19-20	1
Upto 5	6	29-00	1	1-00	23-00	1
Upto 6	3	17-00	2	5-20	10-00	1
Upto 7	1	7-00	-	-	4-00	1
Total	27	99-28	11	14-30	71-22	8

W a l w a

Upto 1	1	1-00	-	-	0-20	-
Upto 2	6	10-37	-	-	5-00	-
Upto 3	5	14-25	-	-	6-05	-
Upto 4	7	27-20	2	3-00	6-20	-
Upto 5	2	9-17	-	-	1-00	-
Total	21	63-19	2	3-00	19-05	-

These Acre-guntha figures converted to decimals would be 71.55 acres and 19.13 acres respectively.

beneficiaries from Jath and Walwa together, the average capital investment was Rs.9480 with subsidy component of Rs.2222 per beneficiary. These figures for Jath were Rs.7139 and Rs.1839 whereas for Walwa they were Rs.13381 and Rs.2860. The average investment in Walwa is higher than Jath because there are many cases of new well and pump in Walwa (Table 7.2.1). The minimum investment was Rs.3100 and maximum Rs.15300 respectively for repair to old well and new well + pumpset.

The above figures of investment cover only the IRDP contribution. In two cases in Jath individual beneficiaries have made some additional investment from their resources. One has spent Rs.300 on pipeline and the other has spent Rs.2500 for repair to well. Over and above this there are certain expenses incurred on asset creation by the beneficiaries in the nature of fitting and transport charges which should be included in the total investment. This amount was Rs.2544 in Jath and Rs.1600 in Walwa taluka reported by 14 and 4 beneficiaries respectively. The data on investment in each of these categories is presented in Table 7.4.1 for each taluka separately. For the computation of capital output ratio, the total of all these of items is taken.

With the investment under minor irrigation more land is brought under irrigation. Our interest is to find out how much additional income is generated from this which is called incremental income. The data on income and expenditure which was recorded separately for each season and crop is useful to

Table 7.4.1 : Categorywise investment in minor irrigation inclusive of self investment (Rs.)

Category Sr.No.	Jath		Walwa		Jath+Walwa	
	No.of cases	Total investment	No.of cases	Total investment	No.of cases	Total investment
1 New well	11	67120	2	22000	13	89120
2 Well repairs	5	25600	-	-	5	25600
3 Pumpsets	5	28971	1	5200	6	34171
4 New well + pumpsets	5	52400	18	255410	23	307810
5 Well repairs + pumpsets	4	40119	-	-	4	40119
6 Pipeline	4	21000	-	-	4	21000
7 Well repair + pumpsets + pipeline	1	20000	-	-	1	20000
Total	35	255210	21	282610	56	537820
Self investment		249866		281010		530876

obtain net income from each crop separately but that by itself is not enough to arrive at the net incremental income. As reported above the capital investment in minor irrigation is for one or more purposes like new well, pumpset, pipeline and repair to well. The following two situations are possible:

(i) the farmer earlier had all unirrigated cultivation and now he has brought some land under irrigation and (ii) the

farmer earlier also had irrigated cultivation but now has increased his land under irrigation. In either of the situation additional land is brought under irrigated cultivation.

To find out the net incremental income from the new investment it is necessary to find out the net income from the additionally irrigated land and subtract from this the income which he would have got from this land without irrigation. As far as the first part is concerned, the data is available straight from the questionnaire. There arises a difficulty for the second part. The farmers cropping pattern during the year preceeding the availability of water through the source created under IRDP assistance should be considered and income from that cropping pattern, if it were adopted during the reference year 1983-84, should be taken as the income forgone. For this purpose, it is necessary to have per acre estimates of incomes from these forgone unirrigated crops. In some cases these crops are also taken by the farmer on part of his land during the year 1983-84. In such cases the income per acre from such crop is used to compute the income forgone. This is not available in all the cases. The yield rates and net incomes from these crops as obtained by the farmer before the irrigation facilities were created is of not much use because the year to year variation question arises and also information on various items of income and expenditure for the past years cannot be obtained from the farmer and therefore it is necessary to have estimates based on the current year data. Therefore, we have taken the

average per acre income computed on the basis of the data for relevant farmers growing these crops during the year 1983-84. A separate average for each crop and each taluka was used. It may be repeated that such average was used only if the estimate could not be built from within the concerned farmer's data.

The figures of average incremental incomes, retainable income, capital output ratio, etc., are presented in Table 7.4.2 for each taluka separately and the same data by deleting eight cases where the irrigation did not materialize is presented in Table 7.4.3.

Retainable Income

Average retainable income per beneficiary per month is given in Table 7.4.2 and 7.4.3 for each taluka for the entire group of families in the former and for only the success cases in the latter. The computations of retainable income per month were done at the individual level as well and the distribution of beneficiary families according to retainable income per month is presented in Table 7.4.4. There were as many as 13 cases who had negative retainable income in Jath out of total 27 cases for which water was being used. Six of the beneficiaries received the retainable income less than or equal to Rs.75 per month; only 5 received more than Rs.300. The picture in Walwa was comparatively better. Only 6 had negative retainable income; 7 had it less than or equal to Rs.75; 5 had more than Rs.300 per month. Considering negative and positive cases together the average for Jath was Rs.106.53 per beneficiary

Table 7.4.2 : Incremental income and capital output ratio :
All cases (Minor Irrigation)

Item	Jath	Walwa	Total
1. Number of beneficiaries	35	21	56
2. Total activity months	420	252	672
3. Total investment	Rs.255210	282610	537820
4. Total net incremental income	Rs. 43640	40928	84568
5. Average net incremental income - per beneficiary per month	Rs.103.90	162.41	125.85
6. Average instalment per beneficiary per month	Rs. 85.15	132.06	102.75
7. Average retainable incremental income per beneficiary per month	Rs. 63.47	123-43	85.95
8. Average investment per beneficiary	Rs. 7292	13458	9604
9. Capital output ratio	4.08:1	4.39:1	4.24:1

per month and for Walwa it was Rs.123.43 per month.

The distribution of beneficiaries according to net incremental income per month is presented in Table 7.4.5. In Walwa 8 beneficiaries had negative net incremental income and in Jath 5.

Table 7.4.3 : Incremental income and capital output ratio :
Failure cases deleted (Minor Irrigation)

Item	Jath	Walwa	Total
1. Number of beneficiaries	27	21	48
2. Total activity months	324	252	576
3. Total investment	Rs.186290	282610	468900
4. Total net incremental income	Rs. 48443	40928	89371
5. Average net incremental income per beneficiary per month	Rs.149.52	162.41	155.16
6. Average instalment per beneficiary per month	Rs. 86.13	132.06	106.22
7. Average retainable income per beneficiary per month	Rs.106.53	123.43	113.93
8. Average investment per beneficiary	Rs. 6900	13458	9769
9. Capital output ratio	2.99:1	4.39:1	3.70:1

7.5 Cropping Pattern

It was mentioned while reporting on incremental income that the land which was additionally irrigated through the source assets created, improved or repaired under IRDP support was the relevant land for computing incremental income. In respect of these lands of the beneficiaries the cropping pattern before the creation of irrigation facility and after is discussed in this section.

Table 7.4.4 : Distribution of sample beneficiaries according to retainable income per month excluding 8 failure cases : Minor Irrigation

Income class (Rs.)	No. of beneficiaries		Total Jath+Walwa
	Jath	Walwa	
-ve cases			
-150 to -125	1	1	2
-125 to -100	-	1	1
-100 to - 75	-	-	-
- 75 to - 50	2	2	4
- 50 to - 25	5	1	6
- 25 to 0	5	1	6
Sub-total	13	6	19
+ve cases			
Upto 25	1	4	5
Upto 50	2	1	3
Upto 75	3	2	5
Upto 100	-	-	-
Upto 125	-	-	-
Upto 150	1	1	2
Upto 175	1	-	1
Upto 200	1	-	1
Upto 225	-	1	1
Upto 250	-	1	1
Upto 275	-	-	-
Upto 300	1	-	1
Upto 325	1	1	2
Upto 350	-	-	-
Upto 375	-	-	-
Upto 400	-	-	-
Upto 425	-	1	1
Upto 450	1	1	2
Upto 475	-	-	-
Upto 500	-	1	1
Above 500	2	1	3
Sub-total	14	15	29
Grand total	27	21	48

Table 7.4.5 : Distribution of sample beneficiaries according to net incremental income per month : Minor Irrigation

(Excluding 8 failure case)

Income class (Rs.P	Distribution of Beneficiaries		Total Jath+Walwa
	Jath	Walwa	
-ve cases			
-150 to -125	-	-	-
-125 to -100	-	-	-
-100 to -75	-	2	2
-75 to -50	1	2	3
-50 to -25	1	-	1
-25 to 0	6	1	7
Sub-total	8	5	13
+ve cases			
Upto 25	3	3	6
Upto 50	2	1	3
Upto 75	1	3	4
Upto 100	2	1	3
Upto 125	3	-	3
Upto 150	-	-	-
Upto 175	1	2	3
Upto 200	-	-	-
Upto 225	1	-	1
Upto 250	-	1	1
Upto 275	-	-	-
Upto 300	-	1	1
Upto 325	1	-	1
Upto 350	1	-	1
Upto 375	1	-	1
Upto 400	-	1	1
Upto 425	-	-	-
Upto 450	-	-	-
Upto 475	1	-	1
Upto 500	-	-	-
Above 500	2	3	5
Sub-total	19	16	35
Grand total	27	21	48

The cropping pattern before and after the creation of irrigation facility in Jath and Walwa is presented in Table 7.5.1 and Table 7.5.2 respectively. The net area that was brought under irrigation with the IADP assistance was 71 acres and 22 gunthas by the 27 beneficiaries in Jath taluka. This makes the average of 2 acres and 26 gunthas per beneficiary. In Jath taluka, the crop of Jowar is generally cultivated during rabi season and Bajra is grown during kharif season. - Double cropping of kharif Bajra and rabi Jowar is also practised under dry farming. In the sample also there was double cropping before irrigation. The ratio of gross cropped area to net cropped area was 1.49 which became 1.51 after irrigation. The irrigation did not affect the extent of double cropping. There was not much change in the cropping pattern, as yet. The Bajra and Jowar crops which were grown unirrigated were now irrigated. The major incremental income arose through the additional yield from these crops due to irrigation. About 84 per cent of area under Jowar continued to be under Jowar and about 62 per cent of the area under Bajra remained under Bajra. The major new crops have been wheat on about 10 acres and Cotton on about 9 acres. Other crops that entered the pattern are Chillies, Groundnut, Onion and Turmeric. Sugarcane has been cultivated on only one acre. There is a possibility of these crops occupying more areas in future and also some more crops entering the pattern.

Table 7.5.1 : Cropping pattern in Jath (in Acres-Gunthas) : Minor Irrigation

Crops before irrigation		Crops after irrigation 1983-84	
Crop	Area	Crop	Area
Bajra Kh.	37-20	Bajra Kh.	23-00
Jowar kh.	00-30	Onion Kh.	00-20
		Groundnut Kh.	2-20
		Cotton Kh.	8-30
		Chillies Kh.	3-00
Sub total	38-10	Sub total	37-30
Jowar R.	68-20	Jowar R.	57-30
		Wheat R.	9-32
		Chillies R.	0-20
		Turmeric R.	0-20
		Cotton R.	0-20
		Groundnut R.	1-00
Sub total	68-20	Sub total	70-02
Sugarcane	-	Sugarcane	1-00
Grand total A + R	106-30	Grand total	108-32
Net Area Irrigated	: 71-22		
Number of beneficiaries	: 27		

Table 7.5.2 : Cropping pattern in Walwa (in Acre-Gunthas) :
Minor Irrigation

Crops before irrigation		Crops after irrigation 1983-84	
Crop	Area	Crop	Area
Jowar Kh.	16-25	Flower Kh.	0-20
		Groundnut Kh.	0-20
		Paddy Kh.	1-20
		Vegetable Kh.	0-20
Sub total Kh.	16-25	Sub total Kh.	3-00
Jowar R.	1-20	Jowar R.	0-20
Wheat R.	1-00	Wheat R.	1-00
Groundnut R.	0-20		
Sub total	3-00	Sub total	1-20
Sugarcane	-	Sugarcane	15-25
Grand total K + R	19-25		20-05

Net area irrigated : 19-05

Number of beneficiaries : 21

In Walwa taluka, the net irrigated area due to IRDP assistance was 19 acres and 5 gunthas. The gross cropped area before irrigation was 19 acres and 25 gunthas with major crop of Jowar kharif on 16 acres and 25 gunthas. This shows that there was not much of double cropping practised by these farmers before irrigation. The gross cropped area after irrigation works out to be 20 acres and 5 gunthas counting sugarcane once only and 35 acres and 30 gunthas counting sugarcane twice. The area under sugarcane was 15 acres and 25 gunthas that is about 82 per cent of the net irrigated area. The other crops taken after irrigation were wheat, jowar, rabi, paddy, vegetables and flowers. The cropping patterns in Walwa and Jath are quite different. The main emphasis in Walwa is on growing sugarcane unlike in Jath. The average net area irrigated per beneficiary works out to be only 36.44 gunthas in Walwa. The average in Walwa is much less and that is because of sugarcane.

Walwa taluka has two sugar factories whereas Jath has none. Cultivation of sugarcane is widely practised in Walwa. From the figures* available, the area under sugarcane was 8407 hectares in Walwa while it was meagre 500 hectares in Jath. Therefore, it was observed that the beneficiaries in Walwa went for sugarcane but those in Jath did not. Being drought prone area they are also not sure of water table during the summer season.

* Socio Economic Review and District Statistical Assistance of Sangli District, 1981-82, Directorate of Economics and Statistics, Government of Maharashtra, Bombay, page 21 (Table 3.2).

7.6 Crossing the Poverty Line

Keeping the infructuous cases out we have 27 beneficiaries in Jath of whom 15 were below poverty line and 12 were above poverty line. Considering the retainable income only 4 families crossed the poverty line during the year 1983-84 in the minor irrigation sector in Jath taluka. In Walwa there were 10 beneficiaries below the poverty line and here also only 4 families crossed the poverty line.

The frequency distributions of beneficiaries according to income without IRDP activity and income with IRDP activity are presented in two-way Tables 7.4.6 and 7.4.7 for Jath and Walwa respectively.

Table 7.4.6 : Frequency distributions of beneficiaries in Jath Taluka according to income without IRDP and with IRDP : Minor Irrigation

Income class without IRDP (Rs.)	Income Class : With IRDP												
	-1500	-1000	-500	0 to zero	1000	1500	2000	2500	3000	3500	4000	4500	5000
Upto 500	1	-	-	-	-	-	-	-	-	-	-	-	-
Upto 1000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 1500	-	-	-	1	-	-	-	-	-	-	1	-	-
Upto 2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 2500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 3000	-	-	-	-	-	1	-	2	-	1	-	-	-
Upto 3500	-	-	-	-	-	-	-	-	-	1	1	-	-
Upto 4000	-	-	-	-	-	-	-	-	-	1	1	-	-
Upto 4500	-	-	-	-	-	-	-	-	-	-	-	-	1
Upto 5000	-	-	-	-	-	-	-	-	-	-	-	-	1
Upto 5500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 6000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 6500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 7000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 7500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 8000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 8500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 9000	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 9500	-	-	-	-	-	-	-	-	-	-	-	-	-
Upto 10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Above 10000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	-	-	1	-	1	-	2	-	3	3	-	1

contd.

Table 7.4.6 : contd.

Income class without IRDP (Rs.)	Income Class ; With IRDP											Total
	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	
Upto 500	-	-	-	-	-	-	-	-	-	-	-	1
Upto 1000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 1500	-	-	-	-	-	-	-	-	-	-	-	2
Upto 2000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 2500	-	-	-	-	-	1	-	-	-	-	-	1
Upto 3000	-	-	-	-	-	-	-	-	-	-	-	4
Upto 3500	-	-	-	-	-	-	-	-	1	-	-	3
Upto 4000	-	-	-	-	1	-	-	-	-	-	-	3
Upto 4500	-	-	1	-	-	-	-	-	-	-	1	2
Upto 5000	-	-	-	-	-	-	-	-	-	-	-	1
Upto 5500	1	-	-	-	-	-	-	-	-	-	-	1
Upto 6000	1	-	-	-	-	-	-	-	-	-	-	1
Upto 6500	-	-	-	-	1	-	-	-	-	-	-	1
Upto 7000	-	-	-	1	-	-	-	-	-	-	-	1
Upto 7500	-	-	-	-	1	-	-	-	-	-	-	1
Upto 8000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 8500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 9000	-	-	-	-	-	-	1	-	-	-	-	1
Upto 9500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 10000	-	-	-	-	-	-	-	1	-	-	-	1
Above 10000	-	-	-	-	-	-	-	-	-	1	2	3
Total	2	-	1	1	3	2	-	1	1	1	3	27

Table 7.4.7 : Frequency distributions of beneficiaries to Walwa Taluka according to income without IRDP and with IRDP : Minor Irrigation

Income class without IRDP (Rs.)	Income Class : with IRDP											
	0 to 1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	
Upto 500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 1000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 1500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 2000	-	-	1	1	-	-	-	-	-	-	-	-
Upto 2500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 3000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 3500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 4000	-	-	-	-	-	-	1	-	-	-	-	-
Upto 4500	-	-	-	-	-	1	-	1	-	-	-	-
Upto 5000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 5500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 6000	-	-	-	-	-	-	-	1	-	-	-	-
Upto 6500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 7000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 7500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 8000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 8500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 9000	-	-	-	-	-	-	-	-	-	-	-	-
Upto 9500	-	-	-	-	-	-	-	-	-	-	-	-
Upto 10000	-	-	-	-	-	-	-	-	-	-	-	-
Above 10000	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	1	1	-	1	-	1	2	-	-	-

contd.

Table 7.4.7 : contd.

Income class without IRDP (rs.)	Income Class : With IRDP									Total
	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	
Upto 500	-	-	-	-	-	-	-	-	-	-
Upto 1000	-	-	-	-	-	-	-	-	-	-
Upto 1500	-	1	-	-	-	-	-	-	-	1
Upto 2000	-	-	-	-	-	-	-	-	-	2
Upto 2500	-	-	-	-	-	-	-	-	-	-
Upto 3000	-	1	-	-	-	-	-	-	-	1
Upto 3500	-	-	-	-	-	-	-	-	-	-
Upto 4000	-	-	-	-	-	-	-	-	-	1
Upto 4500	-	-	-	-	-	-	-	-	-	2
Upto 5000	-	-	-	-	-	-	-	-	-	-
Upto 5500	-	-	-	-	-	-	-	-	-	-
Upto 6000	-	-	-	-	1	1	1	-	-	4
Upto 6500	-	-	-	-	-	-	-	-	-	-
Upto 7000	-	-	-	-	-	-	-	-	-	-
Upto 7500	-	-	-	-	-	-	-	-	-	-
Upto 8000	-	-	-	-	-	-	-	-	-	-
Upto 8500	-	-	-	-	-	1	-	1	-	2
Upto 9000	-	-	-	-	-	2	-	-	-	2
Upto 9500	-	-	-	-	-	-	-	-	-	-
Upto 10000	-	-	-	-	-	1	-	-	1	2
Above 10000	-	-	-	-	-	-	-	-	4	4
Total	-	2	-	-	1	5	1	1	5	21

CHAPTER VIII

SHEEP AND GOAT REARING

8.1 Sample Beneficiaries

There are a large number of beneficiaries in Jath taluka who were given loan for the purchase of sheep or goats. As stated in the sampling plan it was decided to cover about 40 cases from Jath taluka belonging to this category, in addition to this, few cases from sample villages in Walwa could also fall in the sample. Accordingly, there are 42 sample beneficiary from Jath and 3 from Walwa. The data for all the 45 beneficiaries has been analysed together, as talukawise analysis is not meaningful with only three cases in Walwa.

Land holding

Out of 45 beneficiaries in this sector 20 had land; 18 from Jath and 2 from Walwa. The distribution of these beneficiaries according to landholding is presented in Table 8.1.1. Fourteen beneficiaries held land less than or equal to 3 acres. The average landholding per beneficiary family was 2 acres 22.25 gunthas for these twenty landowning families. There were only three beneficiaries who had irrigation.

SC/ST Beneficiaries

There were ten scheduled caste families and one scheduled tribe family in this sample who owned land whereas there were 15 landless scheduled caste families and one landless scheduled tribe family. This is a sector with maximum proportion of

Table 8.1.1 : Distribution of sample beneficiaries according to land holding: sheep & goat

(in Acres Gunthas)

	Jath				Walwa			
	No. of cases	Irri-gated land	Unirri-gated land	Total land holding	No. of cases	Irri-gated land	Unirri-gated land	Total land holding
Upto 1	-	-	-	-	1	-	0-20	0-20
2	7	2-00	11-23	13-23	-	-	-	-
3	8	1-00	20-32	21-32	1	-	3-00	3-00
4	1	-	4-00	4-00	-	-	-	-
5	2	-	9-20	9-20	-	-	-	-
Total	18	3-00	45.35	48-35	2	-	3-20	3-20

families in this category. There were 27 SC/ST families out of 45 that means 60 per cent families in this sector were SC/ST families.

Table 8.1.2. : Distribution of beneficiaries according to SC/ST or not and landowner or landless

Category	Landowner	Landless	Total
SC	10	15	25
ST	1	1	2
Others	9	9	18
TOTAL	20	25	45

Income Without IRDP

The distribution of beneficiary families according to income without IRDP is presented in Table 8.1.3. There is one

one family who had no other income than from goats purchased under IRDP assistance. The head of this household was widow, the other member being her school going niece. None of the two had any wage earning. There are as many as 23 families whose income without IRDP activity is less than or equal to Rs. 3000 during 1983-84. There are only seven families with this income above Rs. 5000, with no family having income higher than Rs. 8000. Considering the income distribution the beneficiaries in this category are poorer than say in dairy sector or minor irrigation sector.

Taking into consideration the family size and based on the income without IRDP during 1983-84, there were 35 beneficiaries below poverty line and 10 above poverty line. The extent of misclassification was therefore smaller in this sector being 22.22 per cent families who were actually above poverty line but were classified as below poverty line and were given the benefit of the IRDP Programme.

8.2 Births, Deaths and Sales

The goat rearing activity generates income through the sale of animals and the sale of manure. Therefore, the sale of animals in this sector is not negative feature like that in dairy sector. The number of animals born, dead and sold during the reference period for which the data was collected as follows :

<u>No. of Animals</u>			
<u>Purchased</u>	<u>Born</u>	<u>Dead</u>	<u>Sold</u>
422	649	276	488

The above figures refer to 969 activity months of 45

Table 8.1.3 : Distribution of sample beneficiaries according to without IRDP income during 1983-84: Sheep & Goat

Without IRDP Income Class Rs.	No. of Beneficiaries		Total Jath + Walwa
	Jath	Walwa	
Nil	1	-	1
Upto 500	2	1	3
1000	4	-	4
1500	4	-	4
2000	5	-	5
2500	1	-	1
3000	6	-	6
3500	5	-	5
4000	4	1	5
4500	3	-	3
5000	2	-	2
5500	2	1	3
6000	1	-	1
6500	-	-	-
7000	1	-	1
7500	-	-	-
8000	1	-	1
8500	-	-	-
Above 8500	-	-	-
TOTAL	42	3	45

beneficiaries. If we compute the death rate by dividing the number of dead animals by the total number of animals purchased and born it works out to be 25.77 percent over the period of 969 activity month of the 45 beneficiaries. If we have to talk in terms of death rate per annum we will have to adjust the

number of births as well as number of deaths accordingly. If there were 12 activity months for each beneficiary there would be total 540 activity months for 45 beneficiaries. Therefore, we may reduce the number of births as well as number of deaths by proportion $\frac{540}{969} = 0.5573$ and then take the ratio of number of deaths and number of animals purchased and born. This gives the death rate of 19.64 percent. Much higher death rates are reported in other studies.

8.3 Income Generation :

The sheep rearing and goatry are generally considered under one category though the sheep rearing is distinctly different on account of wool production. The two are not at all different in regard to rearing practices. Generally, there is stall feeding only on a small scale; the animals are taken for grazing to barren lands and hills. Therefore, in both the activities not much cost is incurred on fodder. The practice of giving readymade feeds is also not prevalent on large scale. Expenditure on medicines is reported in a number of cases. The labour involved in taking the animals for grazing is the major cost to the owner. The grazing goats quite often damage the crops in the farm and also the forest plantations. As a matter of fact the habit of goat is to eat away the plant tops which is very harmful to the plants. The goat menace is a major threat to the plantation programme more specially so for the social forestry programmes because the lands around the villages and roadside are covered by the social forestry programme and

the same are endangered by the goat grazing. The grazing of sheep is close to the ground and is more dangerous to young up-coming plants in the farm than the planted plants under the forestry programme. The two together is a menace the way the things are happening today. An important point to note is that in rearing the sheep as well as goat, the dependence is more on free grazing than on stall feeding of fodder or feed.

On the income side, the sale of animals is the major source of income in the goatry whereas the wool production is the major source in sheep rearing. In addition to this there is income generation through the sale of manure in both these activities. There is also a practice of keeping the animals herds on the farms for a specified period so that the droppings are directly available to the farm owners for which they would pay either in cash or kind to the owners of the sheep/goats. There is no general practice of selling milk of the goats, though there were some cases reporting sale. Some milk is consumed by the owner families. All these items are taken into consideration while computing income from this activity. In the case of milk, only the sale of milk is considered and home consumed milk is not taken into account. The quantities were also meagre.

There is a lot of turnover of these animals in terms of births, deaths, sales and purchases and it is also not possible to obtain individual animal level information. Therefore, the information has to be for the entire stock of animals during

the reference period and the stock not being the same over the period the change in stock should be taken into consideration. The total stock at the beginning of the period and at the end of the period is recorded and the difference is called change in stock. The reference period is from the date of purchase of animals under IRDP till the date of enquiry. If the stocks have increased the change in stock would be positive and is taken on the receipt side and if it has depleted the change in stock would be negative and is taken on the expenditure side. With this approach the sales made during this period are receipts and purchases made expenditure. The insurance claims received in respect of dead animals also need to be taken on receipt side.

Change in stock is calculated initially in terms of number of goats/sheep and number of lambs separately. A lamb at the beginning of the period may have become the goat/sheep at the end of the period. It would be counted as lamb at the beginning and as goat/sheep at the end. For computing the value of stock so that the change in stock can be finally converted into money terms, the price at the time of purchase under IRDP is used. In doing so there is no data for the price of lamb because the IRDP purchases are generally in lots of 10 goats/sheep and one ewe. Therefore, for the price of lambs, the sale data was utilized. The data on the sale of animals was collected separately for goats/sheep and lambs and therefore, the average sale price of lamb was computed and used for the valuation of

the stock. Thus the change in stock is converted in value terms. It is either negative or positive.

The income from this activity would be equal to change in stock plus receipts minus expenditure as defined above. This net income itself would be the gross incremental income from IRDP activity except in the cases where the beneficiaries possessed non-IRDP animals. In these cases, as the separation of accounts for IRDP and non-IRDP animals was not possible the totals of receipts as well as expenditure were proportionately adjusted. The proportions for adjustment were computed on the basis of the stock of owned animal and the purchased animals under IRDP at the time of purchase. There were only 8 beneficiaries who owned animals earlier.

With the above approach to income computation and using the same definitions of net incremental income and retainable income, the computations were carried out at the individual level as well as group level. The group level figures of number of activity months, investment, net incremental income, retainable income, etc., are presented in Table 8.3.1. The retainable income at the group level works out to be -23.73 Rs. per month per beneficiary. If we consider the net incremental income, the average works out to be Rs. 20.50 per beneficiary per month. The average investment per beneficiary was Rs.3151.

Retainable Income

The retainable income at the group level worked out to be negative in this sector of sheep and goat rearing. The

Table 8.3.1: Incremental Income and Capital Output Ratio for Sheep and Goat Rearing

Item	All 45 cases together
1 Number of Beneficiaries	45
2 Total Activity Months	969
3 Total Investment (RS)	141774
4 Total Net Incremental Income(RS)	19862
5 Average Net Incremental Income per Beneficiary per month (Rs)	20.50
6 Average Instalment per Beneficiary per month (Rs.)	44.23
7. Average retainable incremental Income per Beneficiary per month (Rs.)	-23.73
8 Average Investment per Beneficiary (Rs.)	3151
9 Capital Output Ratio works out negative	

computation of retainable income at individual levels are also done and it was found that in 23 cases the retainable income was negative and only in 22 cases it was positive. The distribution of beneficiaries according to retainable income is presented in Table 8.3.2 and according to net incremental income is presented in Table 8.3.3. In none of the cases the retainable income is higher than Rs. 150 per month. There are only six cases who received retainable income higher than Rs. 100 per month, the remaining 16 beneficiaries received less

than Rs. 100.

The frequencies of beneficiaries receiving negative or positive income according to whether landless or landowner and whether SC/ST are given in the Table 8.3.4. Of the 27 SC/ST beneficiaries as many as 17 that is 62.96% received negative retainable income. Among the 18 non SC/ST beneficiaries six received negative retainable income that means 33.33 per cent of beneficiaries. If we look through the angle of whether landowners or landless more or less half of them in each group received negative retainable income showing that there was no difference on this between groups of landowners and landless. These observations are based only on frequency of positive and negative retainable income.

8.4 Performance by Different Groups of Beneficiaries

The above analysis was further carried out by computing average retainable income for different groups based on whether they are landowners or landless and whether they are SC/ST or others. The average at the group level are computed appropriately by taking into consideration the activity months of each beneficiary. The results are presented in Table 8.4.1.

It can be seen from Table 8.4.1 that in the group of landowners the subgroup of SC/ST received negative average retainable income whereas the subgroup of other than SC/ST received positive retainable income. The similar position is seen for the landless. If we examine the landowners in a single group (Gr.1+Gr.2) their average is negative, the same is

Table 8.3.2 : Distribution of sample beneficiaries according to retainable income per month : Sheep & Goat

Income Class	No. of Beneficiaries		
	Jath	Walwa	Jath+Walwa
-ve cases			
-150 to -125	5	-	5
-125 to -100	4	-	4
-100 to - 75	4	-	4
-75 to - 50	2	-	2
-50 to - 25	2	-	2
-25 to 0	4	2	6
Sub-Total (-ve cases)	21	2	23
+ve cases			
Upto 25	4	-	4
" 50	5	1	6
" 75	5	-	5
" " 100	1	-	1
" 125	3	-	3
" 150	3	-	3
Sub-Total (+ve cases)	21	1	22
GRAND TOTAL	42	3	45

Table 8.3.3 : Distribution of sample beneficiaries
according to net incremental income:
Sheep & Goat

Income Class	Number of Beneficiaries		
	Jath	Walwa	Jath+Walwa
-ve cases			
-125 to -100	5	-	5
-100 to - 75	3	-	3
- 75 to - 50	1	-	1
- 50 to - 25	5	-	5
- 25 to 0	2	-	2
Sub-Total (-ve cases)	16	-	16
+ve cases			
Upto 25	4	2	6
" 50	4	-	4
" 75	6	-	6
" 100	5	1	6
" 125	1	-	1
" 150	2	-	2
" 175	4	-	4
Sub-Total (+ve cases)	26	3	29
GRAND TOTAL	42	3	45

Table 8.3.4 : Distribution of sample beneficiaries according to the +ve or -ve retainable income per month and category: Sheep & Goat

Category	Land Owners		Landless		Total
	+ve Retainable Income	-ve Retainable Income	+ve Retainable Income	-ve Retainable Income	
SC	4	6	6	9	25
ST	-	1	-	1	2
Others	5	4	7	2	18
TOTAL	9	11	13	12	45

Table 8.4.1 : Average retainable income for different groups: Sheep & Goat

Group	No. of Cases	Average Retainable Income Rs. per Month
1 Landowners SC/ST	11	-46.89
2 Landowners others	9	11.90
3 Landless SC/ST	16	-24.42
4 Landless others	9	41.65
Gr.1 + Gr.2	20	-19.37
Gr.3 + Gr.4	25	-25.18
Gr.1 + Gr.3	27	-33.32
Gr.2 + Gr.4	18	26.77

the case with landless (Gr.3+Gr.4). On the other hand considering non SC/ST beneficiaries as a group (Gr.2+Gr.4) their average is positive and that for the SC/ST (Gr.1+Gr.3) group it is negative. In conclusion, it can be said that the SC/ST beneficiaries were considerably worse off than the others and that the landownership did not make any difference in the performance in this sector.

Though the averages of landowners' group (G.1+2) and non-landowners' group (Gr.3+4) were negative they were tested using the t-test explained earlier and the difference was not found statistically significant. The comparison between SC/ST (Gr.1+3) and others Gr.(2+4) was found statistically significant. This supports the conclusions in the above paragraph.

8.5 Crossing the Poverty Line

Of the 35 beneficiaries who were below poverty line only two had crossed the poverty line. With large number of beneficiaries receiving negative retainable income, this is but natural. As presented in other sectors Table 8.3.5 gives the cross tabulation of beneficiaries according to income without IRDP and with IRDP during the year 1983-84. In 6 cases, the retainable income was negative of such an order that the total income of these families with IRDP during 1983-84 was negative. Of these six, five were from Jath and one from Walwa.

Table 8.3.5 : Distribution of Sample Beneficiaries according to
Income without IRDP and with IRDP (Jath+Walwa): Sheep & Goat

Without IRDP Income Class	-1000 to - 500	-500 to zero	With IRDP Income Class*							
			Upto 500	1000	1500	2000	2500	3000	3500	4000
NIL	-	-	-	-	4	-	-	-	-	-
Upto 500	1	1	1	-	-	-	-	-	-	-
" 1000	1	1	-	2	-	-	-	-	-	-
" 1500	-	1	-	2	-	-	-	1	-	-
" 2000	-	1	-	-	-	3	-	-	1	-
" 2500	-	-	-	-	-	-	-	-	1	-
" 3000	-	-	-	1	-	2	-	1	1	-
" 3500	-	-	-	-	-	-	-	-	2	3
" 4000	-	-	-	-	-	-	2	-	-	-
" 4500	-	-	-	-	-	-	-	-	1	-
" 5000	-	-	-	-	-	-	-	1	-	-
" 5500	-	-	-	-	-	-	-	-	-	-
" 6000	-	-	-	-	-	-	-	-	-	-
" 6500	-	-	-	-	-	-	-	-	-	-
" 7000	-	-	-	-	-	-	-	-	-	-
" 7500	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	-
Above 8500	-	-	-	-	-	-	-	-	-	-
TOTAL	2	4	1	5	1	5	2	3	6	3

(contd.)

Table 8.3.5 (contd.)

Without IRDP Income Class	4500	5000	5500	6000	6500	7000	7500	8000	8500	Above 8500	Total
NIL	-	-	-	-	-	-	-	-	-	-	1
Upto 500	-	-	-	-	-	-	-	-	-	-	3
" 1000	-	-	-	-	-	-	-	-	-	-	4
" 1500	-	-	-	-	-	-	-	-	-	-	4
" 2000	-	-	-	-	-	-	-	-	-	-	5
" 2500	-	-	-	-	-	-	-	-	-	-	1
" 3000	1	-	-	-	-	-	-	-	-	-	6
" 3500	-	-	-	-	-	-	-	-	-	-	5
" 4000	1	1	1	-	-	-	-	-	-	-	5
" 4500	-	-	1	-	1	-	-	-	-	-	3
" 5000	-	-	1	-	-	-	-	-	-	-	2
" 5500	-	1	2	-	-	-	-	-	-	-	3
" 6000	1	-	-	-	-	-	-	-	-	-	1
" 6500	-	-	-	-	-	-	-	-	-	-	-
" 7000	-	-	-	-	-	1	-	-	-	-	1
" 7500	-	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	1	1
" 8500	-	-	-	-	-	-	-	-	-	-	-
Above 8500	-	-	-	-	-	-	-	-	-	-	-
TOTAL	3	2	5	-	1	1	-	-	-	1	45

* With IRDP Income is -ve in 6 cases (5 in Jath and 1 in Walwa)

CHAPTER IX
BULLOCK CART/PAIR

9.1 Sample Beneficiaries

In this chapter the cases of purchase of bullock cart and bullock pair are considered. As far as the sample is concerned, there was no beneficiary who had purchased both bullock cart and pair under the IRDP assistance. There were twelve beneficiaries who purchased bullock cart and six who purchased bullock pair. All the twelve beneficiaries who purchased carts are from Walwa taluka and the six who purchased pairs were from Jath.

Landholding

There was only one beneficiary who did not own land but he leased in 4 acres of land after he purchased bullock pair under IRDP assistance. Thus, all the beneficiaries cultivated land. The distribution of beneficiaries according to land holding is presented in Table 9.1.1. Nobody held land more than 4 acres. Eight beneficiaries had land holding of one acre or less, four had more than one acre upto two acres. Thus, two thirds of them had only two acres or less. The total land holding in the group of six beneficiaries who purchased bullock pairs was 15 acres that means the average holding was 2 1/2 acres. The other group of 12 beneficiaries who purchased bullock carts had 17 acres and 31 gunthas making an average of 1 acre and 19.25 gunthas only. Out of 15 acres cultivated by those who purchased bullock pairs, 10 acres

Table 9.1.1 : Distribution of sample beneficiaries according to land holding in Acre Gunthas : Bullock Cart/Pair

	Jath				Walwa			
	No. of cases	Irri. land	Un-irri. land	Total land holding	No. of cases	Irri. land	Un-irri. land	Total land holding
Upto 1	1	0-20	0-20	1-00	7	0-20	3-31	4-11
" 2	2	3-00	1-00	4-00	2	-	3-00	3-00
" 3	2	6-00	-	6-00	1	-	2-20	2-20
" 4	1	1-10	2-30	4-00	1	-	4-00	4-00
" 5	-	-	-	-	-	-	-	-
" 6	-	-	-	-	-	-	-	-
" 7	-	-	-	-	-	-	-	-
" 8	-	-	-	-	-	-	-	-
Total :	6	10-30	4-10	15-00	11	0-20	13-11	13-31

and 30 gunthas was irrigated. In the other group only 20 gunthas land was irrigated.

SC/ST Beneficiaries

There were only two scheduled caste beneficiaries and one scheduled tribe beneficiary in the sample who purchased bullock carts. There was none from this category who purchased bullock pair. Each of the two scheduled caste beneficiaries owned 10 gunthas land and the scheduled tribe beneficiary owned 30 gunthas. None of these three had any irrigation.

The two scheduled caste beneficiaries were already in the business of transport by bullock cart whereas the scheduled tribe beneficiary entered the business newly.

Income without IRDP

The distribution of these 18 beneficiaries according to their income without IRDP during the year 1983-84 is presented in Table 9.1.2. It can be seen that these are comparatively better off families. Of the eighteen families only 3 had income without IRDP less than Rs. 5,000; the rest had more than Rs. 5,000. Ten families had this income above Rs. 5,000 and upto Rs. 7,500. Two families were in the income group of between Rs. 9,500 and Rs. 10,000 whereas there were two families who had income even above Rs. 10,000.

Extent of Misclassification

In terms of their income level compared to poverty line, only 2 out of 6 from the group of bullock pair purchasers were below poverty line and only 3 out of 12 in the group of bullock cart purchasers were below poverty line. Thus, 13 out of 18 beneficiaries in this category were above the poverty line who received IRDP assistance.

9.2 Income Generation

Though the cases of purchase of bullock cart and bullock pair are being considered under the same category, there being differences in the functional usages of these asset as observed for these sample beneficiaries, it is necessary to adopt different methods for computation of

Table 9.1.2 : Distribution of Sample Beneficiaries According to Income without IRDP during 1983-84 : Bullock Cart/pair

Income class Rs.	Distribution of beneficiaries		Total Jath and Walwa
	Jath	Walwa	
Upto 500	-	-	-
" 1000	-	-	-
" 1500	-	-	-
" 2000	-	-	-
" 2500	-	1	1
" 3000	-	-	-
" 3500	1	-	1
" 4000	1	-	1
" 4500	-	-	-
" 5000	-	-	-
" 5500	-	2	2
" 6000	-	1	1
" 6500	1	1	2
" 7000	1	1	2
" 7500	2	1	3
" 8000	-	-	-
" 8500	-	1	1
" 9000	-	-	-
" 9500	-	-	-
" 10000	-	2	2
Above 10000	-	2	2
Total :	6	12	18

incomes. Thus, 12 cases of purchase of bullock carts and 6 cases of purchase of bullock pairs are analysed separately and then clubbed in a group. Average investment for bullock pair was Rs. 2,000 and that for bullock cart was Rs. 5,203.

As explained in the methodology section the reference period for recording the activity account were broken in three parts. But as far as the economic activity of keeping bullock pair was concerned, as these were used for agricultural operation, the agriculture year was adopted. In the case of bullock cart activity the recorded information was adjusted to agricultural year. There was yet another problem in this activity that the total duration of activity was too long as the carts were purchased much earlier. For six beneficiaries this was 35 months, for three it was 34, 33 and 32 months each and for the remaining three it was 23 months each. Such a long duration does not allow for the type of current price analysis which was adopted and therefore for these 12 cases of bullock cart activity, the accounts were adjusted by using price indices and were converted to prices of 1983-84.

Bullock Carts

All the bullock carts were purchased to be used for transporting the sugarcane during the season to the sugar factories and they were financed by Walwa Sahakari Sakhar Karkhana Ltd., and Warna Sahakari Sakhar Karkhana Ltd. Of these 12 cases, 8 were really financed during the year 1981-82. However, they were given IRDP benefit of subsidy during the

year 1982-83. The information on their business was collected since the purchase was made. The other four cases were financed by the same agencies during the year 1982-83 and were covered by the IRDP during the same year. Thus, the account of income and expenditure for these twelve cases refers to period varying from 23 to 35 months.

Of these 12 cases, seven beneficiaries were in the business of sugarcane transport even before the purchase of cart through the loan and the remaining five cases have entered the activity only after the purchase. The carts purchased were with improved wheels with ball bearing and tyres and a big body of improved design. Those who were in the profession earlier, were asked about their gross out-turn before the new cart was purchased and a ratio was estimated giving incremental earnings for each case. In the case of new entrants, estimation of such a ratio was not necessary. For both the new and old cases the income from sugarcane transport as well as other transport activity like carrying foodgrains, fodder, etc., was taken into consideration. On the expenditure side the major items of expenditure were repairs, lubricating oil and replacement of tyres in respect of the cart. Though the asset purchase under the programme is only the cart, a bullock pair is used for the activity and therefore, expenditure on bullock pair has to be taken into consideration. For this, the expenditure on purchased fodder, feed, medicines, etc., was recorded. The bullock pair is also used for the

agricultural operations over and above the transport work. Every beneficiary cultivated some land. This necessitates the apportioning of costs on the bullock pair into two activities namely farm operations and transport. This was done by allotting the costs of fodder which was farm grown to the farm operation, and above mentioned items of purchased fodder, feed and medicines were apportioned to the transport activity. In this context it is important to note here that as a matter of fact during the sugarcane transport season sugarcane fodder is available free of cost to these people and it is only in the other season that they purchase fodder. The purchase of fodder is reported only by those who also undertake transport work other than sugarcane; those who have done only sugarcane transport did not report any purchase of fodder. Therefore, it is appropriate to account for the expenditure on purchased fodder, feed to the transport business. Income from the cow-dung manure was also accounted for in agricultural operations because generally the collection during the transport activity is not possible.

As stated earlier for the new entrants there was no need to use any ratio for estimating the incremental income. All the income from this activity was incremental. However, the computation of incremental income has to be done carefully. All these new entrants were earlier engaged in wage earning and therefore their wage income forgone for the period for which they were busy in transport activity has to be taken on the

cost side. This was done. Similarly, on the other side one must examine whether they have saved on their farm business due to possessing the cart. Out of these five new entrants, four had some kind of cart which they were using for their farm purchases and therefore, no saving arose in these cases. One beneficiary did not have any cart earlier and he reported some saving which was taken into consideration.

Net income for each individual beneficiary separately for the entire period since the purchase till the date of enquiry was calculated. The entire net income is incremental as their forgone income is already taken into consideration on the cost side. For the old professionals the incremental income needs to be calculated taking into consideration their income level before the new cart was purchased. For this their income during the year preceding the year of purchase was asked and that was used to compute the incremental ratio. This was applied for the period under consideration and the gross incremental income was computed.

After obtaining the gross incremental income the interest was deducted to arrive at the net incremental income. As stated earlier in methodology section the interest has to be deducted from the incremental income because this cost of interest is increased to achieve this incremental part of the income. All this is done at the individual beneficiary level.

At the group level the aggregation of gross incremental income, net incremental income, retainable income, etc., are

done and group totals and averages are presented in Table 9.2.1. Investmental capital output ratio is also presented.

These computations are done for the groups of bullock cart purchasers and bullock pair purchasers separately and also for the two groups together. The retainable incremental income after deducting the repayment instalment from the gross incremental income was also computed at the individual and group level.

On an average the net incremental income per beneficiary per month from bullock cart activity was Rs. 103.02. The new entrants in the bullock cart activity received higher incremental income than those who were already in the profession. The highest net monthly incremental income at individual level was Rs. 342.38 who was a new entrant. Among the new entrants the lowest figure of this was Rs. 113.07 whereas among the old professionals the highest figure was Rs. 111.47 and the lowest was Rs. 7.36 only. The variation in the net incremental income per month is quite high.

Purchase of Bullock Pair

There were six cases of purchase of bullock pair and all of them were in Jath taluka. All these pairs were purchased for agricultural operations. Every one had 17 activity months. The most important item of income was the expenditure saved by the beneficiaries which was otherwise incurred by them in hiring the bullock power for their agricultural operations. Over and above this, two bene-

Table 9.2.1 : Incremental income and capital output ratio for the Bullock Cart/Pair activity

	Bullock pair	Bullock cart	Total
1. No. of beneficiaries	6*	12**	18
2. Total activity months	102	378	480
3. Total investment (Rs.)	12,000	62,433	74,433
4. Average investment per beneficiary (Rs.)	2,000	5,203	4,135
5. Total net incremental income (Rs.)	7,601	38,941	46,542
6. Average net incremental income per beneficiary per month (Rs.)	74.52	103.02	96.96
7. Average expected repayment per beneficiary per month (Rs.)	41.67	87.50	77.66
8. Average retainable income per beneficiary per month (Rs.)	43.54	50.08	48.69
9. Incremental capital output ratio: #	3.83:1	8.66:1	7.08:1

* All cases belong to Jath Taluka.

** All cases belong to Walwa Taluka.

Capital output ratios are calculated only at the group level. It works out to be 8.66:1 in bullock cart activity.

ficiaries undertook cultivation of others' land on share basis. This added substantially to their income. The income earned from selling the dung manure was also taken into consideration. This was taken proportionately considering the total number of animal with the beneficiary. On the

expenditure side farm grown fodder, purchased fodder and feed, medicinal expenditure, etc., were taken into account. The net income thus calculated was the gross incremental income for these beneficiaries. The amount of interest was then subtracted to arrive at the net incremental income. Retainable incremental income is also computed.

All these computations were done for individual beneficiaries and then for the group. The results of these computations are also presented in the Table 9.1.1 along with those for the bullock cart cases. The average net incremental income per beneficiary per month was Rs. 74.52 per month; the lowest being Rs. 4.25 and the highest Rs.143.76. The capital output ratio worked out to be 3.83 : 1.

When the 12 cases of bullock cart and 6 cases of bullock pair are grouped together the average net incremental income per beneficiary per month was Rs. 96.96 and capital output ratio 7.03 : 1.

Retainable Income

The distribution of beneficiaries according to retainable income per month is presented in Table 9.2.2. Four beneficiaries who purchased the bullock carts received negative retainable income. All these were those who were already in this business. The growth in their business was not enough to enable them to pay the instalments. Their net incremental incomes were positive but small. The other three received substantial incremental so as to have positive retainable

Table 9.2.2 : Distribution of sample beneficiaries according to retainable income per month : Bullock Cart/Pair

Income class Rs.	Distribution of beneficiaries		Total Jath + Walwa
	Jath	Walwa	
- ve			
-50 to -25	1	3	4
-25 to 0	1	1	2
Sub-total	2	4	6
+ve			
Upto 25	2	-	2
" 50	-	2	2
" 75	-	2	2
" 100	1	3	4
" 125	1	-	1
" 150	-	-	-
" 175	-	-	-
" 200	-	-	-
" 225	-	-	-
" 250	-	-	-
" 275	-	-	-
" 300	-	1	1
Sub-total	4	8	12
Grand Total	6	12	18

income. The highest per month retainable income in the group of those who were already in business was Rs. 62.66 while the lowest retainable income in the group of new comers was Rs. 63.87. One new comer received very high income whose retainable income was Rs. 281.00 per month.

Of the six cases of bullock pair purchasers, 2 had negative retainable income and 4 had it positive. The highest per month retainable income was Rs. 102.09 and lowest in the positive group was Rs. 18.31.

The frequency distribution of beneficiaries according to net incremental income per month is given in Table 9.2.3.

9.3 Crossing the Poverty Line

Of the 2 beneficiaries who were below the poverty line in the group of bullock pair purchasers, one has crossed the poverty line. In the other group there were three below the poverty line of whom one has crossed the poverty line.

The movement of beneficiaries between income classes during 1983-84 due to IRDP generated income is presented in Table 9.2.3.

Table 9.2.3 : Distribution of sample beneficiaries according to net incremental income per month during 1983-84 : Bullock Cart/Pair

Income class Rs.	Distribution of beneficiaries		Total Jath + Walwa
	Jath	Walwa	
Upto 25	1	3	4
" 50	1	1	2
" 75	2	-	2
" 100	-	1	1
" 125	-	3	3
" 150	2	3	5
" 175	-	-	-
" 200	-	-	-
Above 200	-	1	1
Total :	6	12	18

Table 9.3.1: Distribution of Sample Beneficiaries According to Income Without and With IRDP, 1983-84 : Bullock cart/pair

Income class (without IRDP) Rs.	Income class (with IRDP)									
	Upto 500	1000	1500	2000	2500	3000	3500	4000	4500	5000
Upto 500	-	-	-	-	-	-	-	-	-	-
" 1000	-	-	-	-	-	-	-	-	-	-
" 1500	-	-	-	-	-	-	-	-	-	-
" 2000	-	-	-	-	-	-	-	-	-	-
" 2500	-	-	-	-	-	-	-	1	-	-
" 3000	-	-	-	-	-	-	-	-	-	-
" 3500	-	-	-	-	-	-	1	-	-	-
" 4000	-	-	-	-	-	-	-	-	-	1
" 4500	-	-	-	-	-	-	-	-	-	-
" 5000	-	-	-	-	-	-	-	-	-	-
" 5500	-	-	-	-	-	-	-	-	-	1
" 6000	-	-	-	-	-	-	-	-	-	-
" 6500	-	-	-	-	-	-	-	-	-	-
" 7000	-	-	-	-	-	-	-	-	-	-
" 7500	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	-
" 9000	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-
Above 9000	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	1	1	-	2

(Continued)

Table 9.3.1: (Continued)

Income class (without IRDP) Rs.	Income class (with IRDP)										Total	
	5500	6000	6500	7000	7500	8000	8500	9000	9500	Above 9500		
Upto 500	-	-	-	-	-	-	-	-	-	-	-	-
" 1000	-	-	-	-	-	-	-	-	-	-	-	-
" 1500	-	-	-	-	-	-	-	-	-	-	-	-
" 2000	-	-	-	-	-	-	-	-	-	-	-	-
" 2500	-	-	-	-	-	-	-	-	-	-	-	1
" 3000	-	-	-	-	-	-	-	-	-	-	-	-
" 3500	-	-	-	-	-	-	-	-	-	-	-	1
" 4000	-	-	-	-	-	-	-	-	-	-	-	1
" 4500	-	-	-	-	-	-	-	-	-	-	-	-
" 5000	-	-	-	-	-	-	-	-	-	-	-	-
" 5500	-	-	-	-	1	-	-	-	-	-	-	2
" 6000	-	-	1	-	-	-	-	-	-	-	-	1
" 6500	-	-	-	1	1	-	-	-	-	-	-	2
" 7000	-	-	1	1	-	-	-	-	-	-	-	2
" 7500	-	-	-	1	1	-	-	-	-	1	-	3
" 8000	-	-	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	1	-	1
" 9000	-	-	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-	-	-
Above 9000	-	-	-	-	-	-	-	-	-	4	-	4
Total	-	-	2	3	3	-	-	-	-	6	-	18

CHAPTER X

RURAL ARTISANS

10.1 Sample Beneficiaries : Old and New Cases

There were a large number of beneficiaries in the category of rural artisans who received the IRDP benefits in this district. As per the DRDA records there were 203 artisans in Walwa and 360 in Jath taluka who availed of the IRDP facilities during the year 1982-83. However, it was found that a large number of beneficiaries were really the old cases of borrowing. These people have borrowed under old schemes through Khadi and Village Industries Commission (KVIC); in some cases even eight years back. In most of these cases they were given cash credit facility through bank under KVIC scheme. The cases of these artisans were prepared by the DRDA showing their loan amount equal to their cash credit and proportionate subsidy was paid by the DRDA which was deposited in their bank accounts. It was also found that there were no separate case papers prepared for these beneficiaries but the processing of the cases was done in bulk.

Thus, the only effect the IRDP had on these beneficiaries was they received subsidy which was credited to their bank account reducing their outstanding to that extent. There was no change in their cash credit limits. There has been no new activity or a fresh boost to the old activity through this. There was no loan disbursement either. Truly speaking there

is no impact of IRDP on these beneficiaries.

It is necessary to mention here that the above picture was not clear before the family survey was begun. The dates on which the subsidies were sanctioned were, in general, shown as the dates of sanction in various records. It is after contacting the sample rural artisans in Jath taluka that we faced the problem of old cases and then after making enquiries at the BDO office and KVIC, the process was understood. Because of this, we tried to change the sampling plan in order to include the fresh cases of artisans in our sample. As there were many cases of cobblers in Jath village, we included a good number of cobblers from Jath village in our sample. Therefore in Jath taluka, we could cover 44 new cases of rural artisans. In the earlier process 16 old cases were already covered in this taluka. In the case of Walwa taluka, it was too difficult to get new cases. It was found that firstly, the new cases are small in number and secondly, they were scattered over many villages. Therefore, we decided to take up whatever cases were available in the sample villages with a view to analyse, if possible, old cases as well. But at the analysis stage we found that no meaningful analysis could be carried out for these old cases.

The position of the sample of rural artisans in terms of old and new cases was as follows :

Table 10.1.1 : Distribution of Old and New Cases of Rural Artisans in the sample

	Jath	Walwa	Total
Old (KVIC) cases	16	32	48
New cases	44	7	51
Total	60	39	99

Table 10.1.2 : Yearwise Position of the Initial Sanction
of Cash Credit by KVIC of the above 48 cases

Year of sanction	1973	1974	1975	1976	1977	1978	1979	1980	Total
No. of cases	2	21	-	4	1	13	4	3	48

As stated earlier, all these are cases of cash credit. They received subsidy through IRDP which was deposited in their accounts at various banks. We tried to analyse the data from the bank to see whether their frequency of transaction increased due to this subsidy facility but we did not get the evidence for that.

It was decided that these cases be dropped from the analysis. We, therefore, took up only 51 cases for analysis these cases according to activities was as follows :

Table 10.1.3 : Distribution of 51 Sample Cases of Rural
Artisans According to Activities

Activities	Taluka		Total
	Jath	Walwa	
Leather Work (Cobblers)	27	1	28
Carpentry	3	-	3
Rope Making	5	2	7
Basket Making	8	-	8
Brick Making	-	4	4
Wool Work	1	-	1
Total	44	7	51

The total amount of loan received by these 51 beneficiaries was Rs. 71,700 and average loan per beneficiary was Rs. 1,406. The total amount of subsidy received was Rs. 23,615 and average subsidy per beneficiary was Rs. 463.

Land Holding

Out of 51 beneficiaries in this sector only 6 had land; 5 from Jath and one from Walwa. The distribution of these beneficiaries according to landholding is presented in Table 10.1.4. Only one beneficiary from Jath had 2 acres irrigated land. The average landholding per beneficiary family was 2 acres 13.33 gunthas.

Table 10.1.4 : Distribution of Sample Beneficiaries in Secondary Sector According to Land Holding (Acre/Gunthas)

Land holding class	No. of cases	Irrigated land	Unirrigated land	Total land holding
<u>Jath</u>				
Upto 1	2	-	2.00	2.00
Upto 2	-	-	-	-
Upto 3	1	2.00	1.00	3.00
Upto 4	2	-	8.00	8.00
Total	5	2.00	11.00	13.00
<u>Walwa</u>				
Upto 1	1	-	1.00	1.00
Upto 2	-	-	-	-
Upto 3	-	-	-	-
Upto 4	-	-	-	-
Total	2	-	1.00	1.00

SC/ST Beneficiaries

All the cobbler beneficiaries were scheduled caste families. In the other activities, there were 7 schedule caste families and 4 scheduled tribe families. Thus, there were 39 SC/ST beneficiaries in the sample of 51 in the secondary sector; that is 76 per cent were SC/ST families.

Table 10.1.5 : Distribution of 51 Sample Beneficiaries in Secondary Sector According to SC/ST Category

Category	No. of Beneficiaries		Total
	Cobblers	Other activities	
SC	28	7	35
ST	-	4	4
Other	-	12	12
Total	28	23	51

Income without IRDP

The distribution of sample beneficiaries according to income without IRDP is presented in Table 10.1.6 for cobblers and others separately. There was one family of cobbler with income less than even Rs. 500 during the year 1983-84; there was none in the income bracket above Rs. 500 and upto Rs. 2500. Above Rs. 2500 and upto Rs. 5000, there were 12 families. There were quite a number of families in the higher income bracket. Six families had income above Rs. 15,000 and three had it above Rs. 10,000 and upto Rs. 15,000.

In the other activities, there were 8 families with income less than or equal to Rs. 2,000. There were 3 families with income above Rs. 2,500 and upto Rs. 4,500. On the higher income side, only two families had income between Rs. 10,000 and Rs. 15,000 but none had it above Rs. 15,000. (ref. Table 10.1.6)

Extent of Misclassification

Taking into consideration the family size and on the basis of the income without IRDP, 16 families of the cobblers were above poverty line out of 28 families. In the case of other activities, 14 were above poverty line. Thus, out of 51 beneficiary families, 30 were above poverty line. In other words, misclassification was 60 per cent in the secondary sector as revealed by the sample.

10.2 Leather Industry in Jath taluka

There are a large number of cobblers in Jath taluka more so in Jath proper who are engaged in preparing 'Kolhapuri' chappal. Another place named Athni is much more known for these chappals. The distance between Jath and Athni is hardly 40 miles. The growth of chappal industry in Jath has come as spread effect of the growth of this industry in Athni. The origin of the Kolhapuri chappal industry in Athni is quite interesting. One family* in Athni developed a new design of chappal which was thinner than the traditional one and also had decorative top with two side flaps. He sent this chappal to one prominent trader in footwear in Bombay who showed willingness to purchase and ordered the

* Report on Documentation and Assessment of Leather Complex in Athani, Maharashtra Industrial and Technical Consultancy Organization Limited.

Table 10.1.6 : Distribution of 51 Sample Beneficiaries
in Secondary Sector according to Income
without IRDP during 1983-84

Income Class: without IRDP	No. of Beneficiaries		Total
	Cobbler	Other	
Upto 500	1	-	1
" 1,000	-	2	2
" 1,500	-	3	3
" 2,000	-	3	3
" 2,500	-	-	-
" 3,000	4	1	5
" 3,500	1	1	2
" 4,000	5	-	5
" 4,500	1	1	2
" 5,000	1	-	1
" 5,500	2	-	2
" 6,000	-	1	1
" 6,500	2	1	3
" 7,000	-	2	2
" 7,500	1	-	1
" 8,000	1	2	3
" 8,500	-	3	3
" 9,000	-	-	-
" 9,500	-	-	-
" 10,000	-	1	1
Above 10,000 to 15,000	3	2	5
Above 15,000	6	-	6
Total	28	23	51

first lot of 20 chappals. He sold this lot in Bombay and the demand for these chappals grew rather fast. This was in 1920's. This trader sold these chappals in Bombay and Pune and later on in Calcutta. They were by then known as Kolhapuri chappals. Though they were produced in Athni they were deliberately named like this by this trader to conceal the fact from the competitors. Subsequently, other centres including Kolhapur started manufacturing these chappals. Later on these chappals were exported and the industry got spread in the neighbouring areas. The existence of this industry in Jath is also result of this process.

10.3 Type of activity, investment and assets purchased

I. Cobblers

In the secondary sector the major activity for which the IRDP facilities were given was leather work - cobblers. The number of cobbler beneficiaries in Jath was 111 and Walwa 29 during the year 1982-83, making the total of 140 out of 441 beneficiaries in the secondary sector in the two talukas. The number of beneficiaries in this category in Jath taluka is quite large because this is quite important activity in this taluka as mentioned above.

As reported in Table 10.1.3, there were 28 cobblers in the sample we have taken. Only one was new entrant. There were two major categories in terms of practices of selling their product. One group prepared the chappals and sold only to the traders and the other sold then to the consumers. The traders from

Sangli, Miraj, Kolhapur and Solapur as well as local traders get the chappals prepared on order from these cobblers. These traders also provide some finance as advance payment to the cobblers.

In terms of making the chappals, there are three groups. One group prepared the chappals using only the family labour, the other engaged hired labour along with the family labour and the third got specified jobs done from others on contract basis such as making of soles, preparing straps and decorating straps. Those who gave such contractual works provided the raw materials. No family got all the above three items made from others, at least one of the items is prepared by them and then the chappals is made.

The major raw material namely hide is purchased by most of them from Athni, Miraj and Sangli. Even the other raw materials are purchased from these places.

Only two cobblers purchased sewing machine through the finance provided to them under IRDP. One beneficiary purchased a machine used for shaping the edges of the soles. This machine has an electric motor. Eleven beneficiaries purchased various implements. The total investment by 28 beneficiaries was Rs. 39,700 making an average of Rs. 1,339. The investment on machine and equipments was Rs. 6,657 or 16.77 per cent of the total investment. Investment in this and other activities in secondary sector is presented in Table 10.3.1.

10.3.1 : Investment in Various Activities in
Secondary Sector

Activity	No. of Beneficiary Families	Total Investment (Rs.)	Average Investment (Rs.)
Cobbler	28	39,700.00	1,359.00
Carpentary	3	9,000.00	3,000.00
Rope Making	7	9,500.00	1,357.00
Basket Making	8	7,500.00	938.00
Brick Making	4	4,000.00	1,000.00
Wool Work	1	2,000.00	2,000.00
Total	51	71,700.00	1,406.00

II. Other activities in Secondary Sector

The beneficiaries in this secondary sector availed of the IRDP facilities for different activities like carpentary, rope making, basket making, brick works and wool work apart from cobblers. The rope makers and basket makers moved from one village to another for selling their products whereas carpenters catered to the customers from their villages and also from other villages but did not move themselves. The brick makers sold their bricks at their kilns. The sole beneficiary engaged in woolwork produced wool rugs locally known as 'jane' and sold in his village and in one more village which he visited occasionally. He also produced on order.

All the 23 beneficiaries engaged in these activities were

also in the profession before they took IRDP finance. There was no new entrant.

Of these 23 only 10 had purchased instruments, etc., for their profession by spending part of the finance, the remaining finance was used for the purchase of raw materials. The percentage of finance spent on instruments by these 10 was 41.30. The other 13 beneficiaries spent entire finance on the purchase of raw material. Considering the entire group of 23, only 15.07 per cent was invested in instruments.

Carpenters : There were three beneficiaries in this class of rural artisans. One of them was mainly engaged in making bullock carts. He spent his entire finance on purchase of trees which he subsequently felled for the wood. The remaining two prepared tables, chairs, benches and other wooden furniture items. They spent their finance partly on the purchase of instruments and partly for the purchase of wood for raw material. One of them had purchased only sundry instruments but the other one purchased air blower, cutting saws, drilling machines and other sundry instruments as well. This person became much better equipped for his job.

Rope Makers

The raw material for making ropes in this part is only 'ghaypat' (AGAVE). All these seven beneficiaries used ghaypat. The plants are soaked in water for about a week and then are dried and beaten to get fibre which is then spinned to get ropes of varied thickness. The spinning is done by hand using

a simple wheel. One person moves the wheel and the other feeds the fibre. Only one beneficiary went for the purchase of improved wheel machine. Others purchased only raw material. The improved wheel instrument is quite useful and saves lot of labour. By using this fibre a number of items used in rural areas for bullocks and other animals, bullock carts, for agricultural implements, etc., are prepared along with ropes of different thickness and length. All the seven beneficiaries moved in different villages for selling these items in weekly markets. Of these seven only two were also working as 'balutedar'. The farmers allowed them to take ghaypat from their field borders and also gave some foodgrains on yearly basis in return to the various item they supplied to the farmers. Other five did not do this.

Basket Makers

These are known locally as 'burud'. They prepare various types of baskets used in villages, bird boxes, grain storage bins, 'tatyas' used for covering bullock carts and for housing purposes and similar items. Some of them prepared brooms also. Small delicate branches of babhul tree, nirgudi tree (VITEX NEGUNDO) and some other trees and specific type of crippers are used as raw material. Bamboo is also used as raw material.

All these eight sold their product in their own villages and in the neighbouring villages in weekly market. They were all working as 'balutedars' also. Some of them received orders as well for specific baskets. All of them spent the finance

mainly for the raw material. Only five of them spent some amount on the purchase of cutting instruments. Only 6.6 per cent was invested on instruments by the group as a whole. In the present state of art there does not exist any scope for purchasing improved instruments in this craft.

Brick Makers

Each one of them have their kilns which are fired only once a year. Around 30,000 bricks are made on an average by each of them. They are engaged in this activity for 2-3 months during which period they also employ labour. The bricks made in this season are sold throughout the year.

All of them used the finance for the purchase of soil and fuels like baggasse and firewood. All of them were already in the business. Everyone borrowed Rs. 1,000 through IRDP. In terms of impact of IRDP, these are peculiar cases. The IRDP finance did not affect their business volume. They used to borrow Rs. 2,000 each from money lenders for their brick business at much higher rate of interest. As they could get Rs. 1,000 through IRDP, they had to borrow privately only Rs. 1,000. Thus, the incremental income due to IRDP is really the interest difference they have saved on this Rs. 1,000/-.

Wool Workers

The sole beneficiary engaged in this work was from village Sonyal. During the year 1982-83 he was the only person who received the IRDP loan for this activity in Jath taluka. As a matter of fact this activity is significantly prevalent

in Jath taluka. This person prepared 'jane' which is a woollen rug made out of local wool by indigeneous method. Jane is a multipurpose rug used in village houses for spreading on the ground for sitting purposes, sleeping purposes, it is also used in bullock carts when people travel in carts. The families in higher income group use it as carpet for which they have costlier varieties.

10.4 Income Generation

Cobblers

Though the schedule designed for the rural artisans was quite comprehensive, it was observed at the time of analysis of the schedules of cobblers that there were lots of discrepancies in the reporting of raw materials used. At the first instance we carried out the income computations on the basis of reported data regarding sales proceeds, purchase of raw materials, payment for hired labour, etc.. The results were not satisfactory and it was found that this was mainly due to bad reporting of raw material purchases. Subsequently, we had an additional field trip and contacted some better informed cobblers. Through their reporting we estimated norms of income in terms of percentage of total sales proceeds. There were four percentages used taking into consideration whether the sales are made in retail to the consumers or in wholesale to the traders and whether hired labour was involved or not. Using these percentage norms the incomes of 28 cobbler beneficiaries were computed. The usual procedure of obtaining the income from the IRDP supported

activity for the entire period from the date of borrowing till the date of enquiry was considered.

It may be mentioned here that right at the time of survey work, it was observed that there were a good number of cobbler families in the sample who really had high income. Some owned double storied houses and had big outturn in the business. The income computations have supported these observations. There were families having their annual income even above Rs.15,000 per annum.

For computing the incremental income, there is no difficulty in the cases of new entrants but there was only one such a case. For those who were already in the business, we had to depend upon the information on the rise of their business outturn after the IRDP facilities were availed of. It may be mentioned here that this reporting was not entirely satisfactory in spite of our efforts in this respect by revisiting these families. We have tried to bring out the best out of this information. In the case of artisans with high outturn, the meagre investments of IRDP are not likely to make any impact. We have therefore kept aside six cases of cobblers where annual income was above Rs. 15,000. The IRDP investment in each case was meagre Rs.1,000. These were really big guys as observed by us during our field trips. Their high incomes were also confirmed during our second visit to them. Keeping these six cases aside, we have analysed remaining 22 cases of cobblers for finding out the impact of IRDP on their incomes.

Results of this analysis at the group level are presented in Table 10.4.1. Average net incremental income per beneficiary per month worked out to be Rs. 68.47 and average retainable income per beneficiary per month was Rs. 34.96. The incremental capital output ratio worked out to be 3.16 : 1 for the group of 22 cobblers.

Others

All the beneficiaries in this category were engaged in the same activity before they took IRDP loans. As in the case of cobblers, the information regarding the rise in the business volume due to IRDP investment was not very satisfactory even

Table 10.4.1 : Incremental Income and Capital Output Ratio for Secondary Sector

Sr. No.	Item	Cobblers	Others	Total
1.	No. of beneficiaries	22	23	45
2.	Total activity months	431	429	860
3.	Total investment (Rs.)	29200	32000	61200
4.	Total net incremental income (Rs.)	29513	51480	80993
5.	Average net incremental income per beneficiary per month (Rs.)	68.47	120.00	94.18
6.	Average instalment per beneficiary per month (Rs.)	39.25	37.77	38.52
7.	Average retainable income per beneficiary per month (Rs.)	34.96	87.74	61.28
8.	Average investment per beneficiary (Rs.)	1327	1391	1360
9.	Capital Output ratio	3.16:1	1.32:1	1.85:1

then we tried to make the best of it. The results of these beneficiaries at the group level are presented in Table 10.4.1. Average net incremental income per beneficiary per month was Rs. 120.00 and average retainable income per beneficiary per month worked out to be Rs. 87.74. The average retainable income was thus more than double in these activities compared to that in cobblers activity. Incremental capital output ratio was 1.32 : 1.

When the entire sample of 45 cases is considered together, the average net incremental income worked out to be Rs. 94.18 per beneficiary per month and the average retainable income worked out to be Rs. 61.28 per beneficiary per month. The incremental capital output ratio for the secondary sector as a whole works out to be 1.85:1.

Retainable income :

The distribution of beneficiaries according to retainable income is presented in Table 10.4.2. Half of the cobblers received negative retainable income. Of these 11 cobblers only one had negative net incremental income and the other 10 had positive net incremental income but it was less than the instalment they were supposed to pay. In the remaining 11 beneficiaries whose retainable income was positive, six had it less than Rs. 50 per month. One beneficiary, however, had the retainable income more than Rs. 300.

Beneficiaries in the other activities were better off than the cobblers. There were only three beneficiaries who had

negative retainable income. Of these three, only one had negative net incremental income. Eleven received retainable income less than Rs. 50 per month, four had it more than Rs.200 per month. One of them had retainable income more than Rs. 300 per month. As stated earlier, the beneficiaries in the other activities received more than double retainable income on an average compared to cobblers.

Table 10.4.2 : Distribution of 45 Sample Beneficiaries in Secondary Sector According to Retainable Income per month.

Income Class	No. of Beneficiaries		
	Cobbler	Other	Total
-ve			
Below --100	1	-	1
-100 to -75	-	-	-
-75 to -50	-	-	-
-50 to -25	1	2	3
-25 to 0	9	1	10
Sub Total (-ve)	11	3	14
+ve			
Upto 25	4	4	8
" 50	2	7	9
" 75	-	4	4
" 100	1	-	1
" 125	1	-	1
" 150	-	1	1
" 175	-	-	-
" 200	2	-	2
" 225	-	2	2
" 250	-	1	1
" 275	-	-	-
" 300	-	-	-
Above 300	1	1	2
Sub Total (+ve)	11	20	31
Grand Total	22	23	45

Distribution of beneficiaries according to net incremental income is presented in Table 10.4.3.

10.5 Crossing the poverty line

As mentioned earlier there were only 12 beneficiaries below the poverty line out of these 22 cobblers. Of these 12, only two were able to cross the poverty line during the year 1983-84. As regards the beneficiaries engaged in other activities in secondary sector only 9 were below poverty line out of the total 23. None of these nine could cross the poverty line.

Frequency distributions according to income with IRDP and income without IRDP during the year 1983-84 for cobblers and for others is presented together in Table 10.4.4.

Table 10.4.3 : Distribution of 45 Sample Beneficiaries
in Secondary Sector according to net
incremental income per month

Income Class (Rs.)	No. of Beneficiaries		
	Cobbler	Other	Total
-ve cases			
Below -100	1	-	1
-100 to -75	-	-	-
-75 to -50	-	-	-
-50 to -25	-	-	-
-25 to 0	-	1	1
Sub Total (-ve)	1	1	2
+ve cases			
Up to 25	6	1	7
" 50	5	7	12
" 75	4	4	8
" 100	2	2	4
" 125	-	2	2
" 150	1	1	2
" 175	-	1	1
" 200	-	-	-
" 225	1	-	1
" 250	1	2	3
" 275	-	1	1
" 300	-	-	-
" 325	-	-	-
" 350	-	-	-
" 375	-	-	-
" 400	-	-	-
Above 400	1	1	2
Sub Total (+ve)	21	22	43
Grand Total	22	23	45

Table 10.4.4 : Distribution of 45 sample beneficiaries in Secondary Sector according to Income without and with IRDP during 1983-84

Income Class without IRDP (Rs.)	Income Class : With IRDP										
	Upto 500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500
Upto 500	1	-	-	-	-	-	-	-	-	-	-
" 1000	1	1	-	-	-	-	-	-	-	-	-
" 1500	-	1	-	2	-	-	-	-	-	-	-
" 2000	-	-	-	1	1	1	-	-	-	-	-
" 2500	-	-	-	-	-	-	-	-	-	-	-
" 3000	-	-	-	-	-	4	1	-	-	-	-
" 3500	-	-	-	-	-	1	1	-	-	-	-
" 4000	-	-	-	-	-	-	-	3	-	-	-
" 4500	-	-	-	-	-	-	-	-	2	-	-
" 5000	-	-	-	-	-	-	-	-	-	1	-
" 5500	-	-	-	-	-	1	-	-	-	-	-
" 6000	-	-	-	-	-	-	-	-	-	-	-
" 6500	-	-	-	-	-	-	-	-	-	-	-
" 7000	-	-	-	-	-	-	-	-	-	-	-
" 7500	-	-	-	-	-	-	-	-	-	-	-
" 8000	-	-	-	-	-	-	-	-	-	-	-
" 8500	-	-	-	-	-	-	-	-	-	-	-
" 9000	-	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-	-
" 10000	-	-	-	-	-	-	-	-	-	-	-
Above 10000	-	-	-	-	-	-	-	-	-	-	-
	2	2	-	3	1	7	2	3	2	1	-

(contd.)

Table 10.4.4 (contd.)

Income Class without IRDP (Rs.)	Income Class: With IRDP										Total
	6000	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	
Upto 500	-	-	-	-	-	-	-	-	-	-	1
" 1000	-	-	-	-	-	-	-	-	-	-	2
" 1500	-	-	-	-	-	-	-	-	-	-	3
" 2000	-	-	-	-	-	-	-	-	-	-	3
" 2500	-	-	-	-	-	-	-	-	-	-	-
" 3000	-	-	-	-	-	-	-	-	-	-	5
" 3500	-	-	-	-	-	-	-	-	-	-	2
" 4000	1	-	-	-	-	1	-	-	-	-	5
" 4500	-	-	-	-	-	-	-	-	-	-	2
" 5000	-	-	-	-	-	-	-	-	-	-	1
" 5500	-	-	-	1	-	-	-	-	-	-	2
" 6000	-	-	-	-	-	1	-	-	-	-	1
" 6500	1	-	1	-	1	-	-	-	-	-	3
" 7000	-	-	1	1	-	-	-	-	-	-	2
" 7500	-	-	-	-	1	-	-	-	-	-	1
" 8000	-	-	-	1	-	-	1	-	-	1	3
" 8500	-	-	-	-	-	-	1	1	-	1	3
" 9000	-	-	-	-	-	-	-	-	-	-	-
" 9500	-	-	-	-	-	-	-	-	-	-	-
" 10000	-	-	-	-	-	-	-	-	-	1	1
Above 10000	-	-	-	-	-	-	-	-	-	5	5
Total	2	-	2	3	2	2	2	1	-	8	45

CHAPTER XI
TERTIARY SECTOR

11.1 Sample Beneficiaries

There were a number of activities like tailoring, provision shop, pan shop, hotel, etc., in this sector for which the loans under IRD Programme were given to the rural poor. Coverage in this sector was much better in Jath taluka and therefore the major sample in this sector came from Jath. There were 53 sample beneficiary cases in tertiary sector spread over different activities. The distribution of these 53 cases according to activities is presented in Table 11.1.1.

Table 11.1.1 : Distribution of 53 beneficiary cases in the tertiary sector according to type of business

Business activity	Jath	Walwa	Total (Jath+Walwa)
Tailoring	3	2	5
Provision shop	6	2	8
Pan shop	4	-	4
Hotel	7	-	7
Laundry	1	-	1
Cutting saloon	1	-	1
Cycle shop	6	1	7
Others	12	8	20
Total-	40	13	53

Under the category of 'others' are covered the activities like cloth shop, stationery shop, jute bag seller, wood seller, vegetable vendor, bangle vendor, etc. The classification in Table 11.1.1 is as per the classification used by the DRDA in their booklet. Therefore, even the single cases of laundry and cutting saloon are shown separately in this table instead of clubbing them under 'others'.

Of these 53 beneficiary cases, there is one family who obtained IRDP loan twice for the same business and hence there were 52 families making 53 cases. In the case of one cloth shop keeper, he was given cash credit facility and therefore was on a different footing. Moreover, the data on interest paid, etc., in his respect was not available from the bank. Therefore, this case was kept out of analysis. Thus, 52 beneficiary cases consisting 51 families are analysed in the following sections. With reference to Table 11.1.1 the frequency against 'others' reduces to 11 in Jath and to 7 in Walwa making the total of 51 families in all.

Land-holding

Among these 51 families, there were only 18 families who owned land. The distribution of their land holding is given in Table 11.1.2. Except two families, all others had land holding of 4 acres or less. One of these two held $6\frac{1}{2}$ acres and the other held $7\frac{1}{2}$ acres. Both of these were in Jath taluka. Total land holding of these 18 families was 49 acres and 35 gunthas making the average of 2 acres and 30.83 gunthas per

Table 11.1.2 : Distribution of sample beneficiaries in Jath and Walwa according to land holding : Tertiary Sector

Land holding class	No. of cases	(Acre-Gunthas)		
		Irrigated land	Unirrigated land	Total land holding
Upto 1	1	-	1-00	11-00
2	9	0-30	12-02	12-32
3	3	=	9-00	9-00
4	3	3-20	7-20	11-00
5	-	-	-	-
6	-	-	-	-
7	1	-	6-20	6-20
8	1	-	7-20	7-20
Total	18	4-10	43-22	47-32

family. There was meagre irrigation of 4 acre 10 gunthas in the entire group.

SC/ST Beneficiaries

There were only 7 beneficiaries from the scheduled caste and none from scheduled tribes. Two of them had tailoring business, two were vegetable vendors, one was fruit vendor, one had cycle shop and one was wood seller.

Income without IRDP

The distribution of these 51 sample families in tertiary sector according to their income without IRDP during 1983-84 is presented in Table 11.1.3.

Table 11.1.3 : Distribution of 51 sample families in tertiary sector according to income without IRDP during 1983-84

Income class : without IRDP Rs.	No. of families		Total (Jath+Walwa)
	Jath	Walwa	
Upto 500	1	-	1
" 1000	3	-	3
" 1500	2	-	2
" 2000	1	1	2
" 2500	2	-	2
" 3000	5	-	5
" 3500	3	-	3
" 4000	3	3	6
" 4500	1	1	2
" 5000	1	-	1
" 5500	6	-	6
" 6000	2	-	2
" 6500	1	-	1
" 7000	2	-	2
" 7500	-	3	3
" 8000	-	-	-
" 8500	2	-	2
" 9000	-	-	-
" 9500	1	-	1
" 10000	-	-	-
Above 10000	3	4	7
Total	39	12	51

As many as 27 families out of 51 had income less than or equal to Rs.5000 without IRDP during the year 1983-84. Another 11 had their income less than or equal to Rs.7000 but more than Rs.5000. There were 7 with income without IRDP more than Rs.7000 and upto Rs.10,000. As many as 6 beneficiaries were barring this income more than Rs.10,000.

Extent of Misclassification

In terms of below or above poverty line, there were 24 beneficiaries below poverty line and 27 above poverty line. The extent of misclassification was about 50 per cent.

11.2 Type of Activity, Investment and Assets Purchased

The above classification of business activities needs further explanation. Many of these people are doing their business by moving from one weekly market to another, some are vendors moving in the same village and the remaining have their business with fixed location in their villages. Another aspect is that some of them are new entrants. Of the 51 beneficiary families 23 were new entrants and 28 were already in the business before taking IRDP assistance. It is important to examine what were these new entrants doing before entering this business and also what assets were purchased through IRDP assistance by these new entrants and also the old ones. This is discussed below. The distribution of beneficiaries according to whether new entrant or old for each business activity is presented in Table 11.2.1.

Table 11.2:1 : Distribution of beneficiary families according to whether new entrant in the business or was already in the business before taking IRDP assistance : Tertiary Sector

Business activity	New entrant	Already in the business	Total
Tailoring	4	1	5
Provision shop	3	5	8
Pan shop	3	1	4
Hotel	6	1	7
Laundry	-	1	1
Cutting saloon	-	1	1
Cycle shop	-	7	7
Others	7	11	18
Total	23	28	51

Activitywise total and average investment is presented in Table 11.2.2. The total frequency is of 51 beneficiary families and as explained above under 'others' there are 18 beneficiary families but 19 beneficiary cases. Average investment in the tertiary sector was Rs.3880. Maximum average investment was Rs.5643 in cycle shop, next was Rs.5500 in provision shop. Average investment in tailoring was Rs.1460. The only case of barber had invested meagre Rs.300. Average investment under 'others' is Rs.3544 but there is a large

Table 11.2.2 : Investment in various activities in Tertiary Sector

Activity	Number of beneficiary families	Total investment (Rs.)	Average investment (Rs.)
Tailoring	5	7300	1460
Provision shop	8	44000	5500
Pan shop	4	14000	3500
Total	7	27500	3929
Laundry	1	1500	1500
Cutting saloon	1	300	300
Cycle shop	7	39500	5643
Others	18	63800	3544
Total	51	197900	3880

variation in the investment depending upon the type of activity. The highest investment was Rs.10,000 for rewinding works, next was Rs.9000 for wood seller, the lowest was Rs.500 for vegetable seller.

Tailoring

All the tailors have fixed location for their business at their residence except for one who has shop establishment. Of the five cases of tailors in the sample, there was only one beneficiary who was already in the business before he took IRDP assistance. Among the four new entrants, two were women. All the new entrants have purchased one sewing machine

each through the IRDP assistance and also some instruments like scissors, scales, etc. The beneficiary who was already in the business and purchased one sewing machine and one overlocking machine. Of the four new entrants, three had undergone training under IRYSEM. Of them, one lady was educated upto 8th standard and the other males aged 17 and 18 were educated upto 12th and 7th standard respectively. None of these two boys was gainfully employed earlier; even the lady was engaged only in household work. The fourth entrant was again a lady who was earlier engaged in wage earning but now she devoted full-time for tailoring.

Provision Shops

Of the eight cases of provision shop, three were new entrants. One of these three was earlier employed in someone else's provision shop and the other two were wage earners. All these three have established their shops in their villages. The major items purchased by them were wooden racks, tin containers, weighing balances, etc., and provision goods for sale.

One of the old shop-keeper moved from one market to another for selling provisions on four days a week and for the remaining three days he ran his business in his shop at his residence. The other four old shop-keepers have fixed location for their business. Of these five, four have purchased assets like wooden racks, weighing balances, etc., and provision goods but one has used the loan only as working capital to purchase provision goods.

Par Shops

There were four beneficiaries in this business of whom only one was already in the business while three were new entrants. All the four have fixed location of their shop and none is a mobile vendor. The new entrants purchased the wooden shop structure or the racks and the required raw material. The old shop keeper also invested in shop structure by renovating his old shop. Three of the beneficiaries were from Dafalapur village and their shops were located at the S.T. stand in the village. The fourth one was from village Baz and he also had his shop at the S.T. stand.

One of the new entrants was old man of 65 years and was not gainfully employed earlier. The condition of age was violated in this case while sanctioning the loan under IRDP. Another new entrant was a lady who opted for this business because she was recently divorced. She had no earning before she started this pan shop with IRDP assistance. The third new entrant was earlier engaged in wage employment.

H o t e l

In this activity there were six new entrants while only one was in this business earlier. There was one woman beneficiary who started a small boarding house with the help from IRDP. She was not engaged gainfully earlier. She entered this business as her husband died. One new entrant was in the business of selling firewood who continued that business along with hotel business. Another person had

firewood sales business but he closed down that and opened hotel. One person was a gangman employed on EGS work on temporary basis. The sixth new entrant was young male of 25 years who was not employed earlier. All these beneficiaries purchased wood rack, tables, chairs, benches, stove, etc., and various utensils for the use in their hotels. A part of the loan is also used as working capital and raw materials were purchased.

L a u n d r y

There was only one beneficiary and he was already doing this business. He purchased one electric iron and one wooden table for ironing. He was earlier using an iron for which coal was used. He did not have any table for his ironing work before he took IRDP assistance. There was definite improvement in his business assets.

Cutting Saloon

The only case reported under this category was in fact a case of barber to be more precise. He did not have shop establishment and sat below the tree. He has used his loan for purchasing a new set of instruments.

Cycle Shops

None of the beneficiaries in this activity was a new entrant. Each beneficiary has purchased new bicycles for their hiring business. Three beneficiaries also purchased spare parts for selling them in their shops. One beneficiary had purchased new cycles and also air compressor. All of them undertook cycle repair works as well.

O t h e r s

In this category various activities are covered. Seven beneficiaries in this group were new entrants and the remaining 11 were already in their business.

There were five bangle sellers, of whom four were already in the business and only one was a new comer. The new comer was a woman who started this business with the help of IRDP. She was mainly engaged in her household work except for occasional wage employment before she entered this activity. In the old group also there was one woman beneficiary. Both these women sold the bangles at their houses and also went to weekly market in their own village. The other three beneficiaries who were already engaged in this business did their selling at their residence and also at the weekly market in the radius of 5-7 kilometres. Every one has used part of the finance to purchase a wooden rack which is of a special type to hang bangles and the remaining amount as working capital.

There were four vegetable and fruit sellers of whom only one started the business newly. All the four are women. The new comer had started fruit vending. She was not gainfully employed before. She does not have a shop and does her business by sitting on the roadside. One of the three cases had purchased a wooden shop structure and placed it on the roadside. The remaining two sold vegetables by sitting on the roadside. Entire IRDP finance was used as working capital by all except the one who also purchased wooden shop structure.

Three cases of the wood seller were in the sample of which two were new entrants. One of the new entrant was earlier wage earner and the other was a cobbler. Both of them sold firewood. The old businessman sold firewood and also sawn wood for housing purposes. Two beneficiaries used the finance for purchase of trees and third one purchased wood.

The beneficiaries had cloth shop; one of them was new entrant. This new entrant was a primary teacher before he started this business. He sold ready-made clothes only. He used the assistance for the purchase of cupboard and ready-made clothes. The other beneficiary also used the finance for the purchase of two cupboards and ready-made clothes and also cloth. He sold cloth and ready-made clothes. One had received cash credit facility.

Two beneficiaries had motor-rewinding business of whom one was new entrant. This new entrant was trained under TRYSEM programme. He also has a provision shop. He is engaged in both the activities. He purchased various instruments and raw materials required for the business. The old businessman purchased additional instruments and raw material.

One beneficiary started business of jute bags. His main activity was to undertake contract for putting jute covers to the gur-cakes. He did this at the gur producing units. He entered this business newly. He was earlier engaged in his agriculture and also business in foodgrains. He continued those activities as well. He utilized the IRDP finance for

purchasing jute cloth. He took the finance twice, making two cases.

One beneficiary was seller of stationery goods in various weekly markets. He used the finance as working capital. He attends four weekly markets in the radius of 7 to 16 kilometres, and also the weekly market in his own village.

One beneficiary was engaged in selling miscellaneous items like turmeric, kumkum, poisonous medicines for killing rats, etc. He had used finance for the purchase of these items. He is employed as rural postman getting only Rs.180/- per month. While discharging his duties as postman he has to visit a number of villages where he sold these things.

Thus, there were 5 bangle sellers, 4 vegetable sellers, 3 wood sellers, 2 cloth sellers, including the one with cash credit facility, 2 in rewinding business, one in jute cover business with loan taken twice, one stationery goods seller and one selling miscellaneous items making 20 cases.

11.3 Income Generation

The various activities covered under tertiary sector being widely different in their nature, separate questionnaires were prepared for obtaining the information from the beneficiaries for tailoring, provision shop, hotel, cycle shop and one for the rest of the activities. In the case of new entrants, the income generated through their activity is straight way gross income from IRDP after adjusting for income forgone. The task is difficult in the cases who were already

in the business before they took IRDP assistance. The impact of IRDP support could not be assessed directly but was estimated on the basis of information provided by the respondents in term of growth in their daily/weekly/monthly turnover of the business due to financial assistance obtained under IRDP.

An activity like provision shop involves only purchase and sale of goods, in total activity raw materials are purchased and processed food and drinks are sold, in cycle shop the cycles are given on rent which are to be maintained and also the repair works are carried out for others' cycles for which the charges are collected. Thus, there are variety of items to be considered on income side and expenditure side including hired labour if any.

With the usual definitions net-incremental income, retainable income, etc., are computed for each individual beneficiary family separately in this sector. The aggregate level results for all subgroups together are presented in Table 11.3.1. Average retainable income per month per beneficiary in the tertiary sector worked out to be Rs.164.33, the average net incremental income being Rs.244.33 per beneficiary per month and the capital output ratio was 1.97:1.

In the same table these figures for subgroups are presented. While doing so singular cases of laundry and cutting saloon are merged with 'others'. As explained below, there are a number of cases with negative retainable income spread over different subgroups. The number of such cases was

Table 11.3.1 : Incremental capital output ratio for the business activities in Tertiary Sector

Item	Tailoring	Provision shop	Pan shop	Total	Cycle shop	Others	Total
1. No. of beneficiaries	5	8	4	7	7	20	51
2. Total activity months	96	148	77	123	127	395	966
3. Total investment (Rs.)	7300	44000	14000	27500	39500	65600	197900
4. Total net incremental income	9779	34133	11310	48894	10877	100931	235924
5. Average net incremental income per beneficiary per month (Rs.)	101.87	365.76	146.87	397.52	85.64	255.52	244.33
6. Average instalment per beneficiary per month (Rs.)	47.00	156.25	105.00	119.28	125.42	106.75	112.84
7. Average retainable income per beneficiary per month (Rs.)	63.27	234.13	50.45	305.47	-9.65	258.35	164.33
8. Average investment per beneficiary (Rs.)	1460	5500	3500	3929	5643	3280	3880
9. Capital output ratio	1.92:1	1.95:1	5.78:1	1.07:1	-ve	1.05:1	1.97:1

4 in cycle shop category leaving only three cases with positive retainable income. This resulted into negative average retainable income for this group of cycle shopkeepers. The lowest incremental capital output ratio was 1.05 for the 'others', next higher was 1.07 for the hotel keepers and the highest was 5.78 for pan shops.

Retainable Income

The distribution of beneficiaries according to retainable income is presented in Table 11.3.2 and according to net incremental income is presented in Table 11.3.3. There were as many as 14 beneficiaries whose retainable income was negative. Two beneficiaries engaged in each of the activities - tailoring, provision shop, pan shop, bangle selling and motor rewinding and four beneficiaries engaged in cycle shop received negative retainable income. Their net incremental income was positive, except in one case where it was zero, but was not enough to pay the instalment. At the other end there were seven beneficiaries whose retainable income was more than Rs.500/- per month. In this group, there was one provision shop keeper, two hotel owners, two wood sellers, one vegetable vendor and one cloth shop keeper. The highest retainable income was Rs.750/- per month for one wood seller.

11.4 Crossing the Poverty Line

Six families in the tertiary sector have crossed the poverty line during the year 1983-84. Considering that there were 24 beneficiaries below poverty line in this sector, 25 per

Table 11.3.2 : Distribution of 51 sample families in Tertiary Sector according to retainable income per month

Income class Rs.	Number of families		Total Jath+Walwa
	Jath	Walwa	
<u>-ve</u>			
-100 to -75	2	-	2
- 75 to -50	2	1	3
- 50 to -25	4	-	4
- 25 to 0	5	-	5
Sub-total (-ve)	13	1	14
<u>+ve</u>			
Upto 25	3	1	4
" 50	5	-	5
" 75	2	-	2
" 100	-	3	3
" 125	1	-	1
" 150	3	1	4
" 175	1	-	1
" 200	-	-	-
" 225	1	1	2
" 250	1	-	1
" 275	1	-	1
" 300	1	-	1
" 325	-	-	-
" 350	2	-	2
" 375	-	1	1
" 400	-	-	-
" 425	1	-	1
" 450	-	1	1
" 475	-	-	-
" 500	-	-	-
Above 500	4	3	7
Sub-total (+ve)	26	11	37
Grand total	39	12	51

Table 11.3.3 : Distribution of 51 sample families in Tertiary Sector according to net incremental income per month during 1983-84

Income class Rs.	Number of families		Total (Jath+Walwa)
	Jath	Walwa	
Nil	1	-	1
Upto 25	4	-	4
" 50	5	1	6
" 75	5	-	5
" 100	3	-	3
" 125	3	1	4
" 150	1	-	1
" 175	1	3	4
" 200	1	-	1
" 225	-	-	-
" 250	3	1	4
" 275	-	-	-
" 300	-	-	-
" 325	2	-	2
" 350	-	1	1
" 375	3	-	3
" 400	1	-	1
" 425	1	-	1
" 450	1	1	2
" 475	1	-	1
" 500	-	1	1
" 525	-	-	-
" 550	-	1	1
" 575	-	-	-
" 600	-	-	-
" 625	1	-	1
" 650	-	-	-
" 675	-	-	-
" 700	-	-	-
Above 700	3	2	5
Total	39	12	51

cent have crossed the poverty line. These six were engaged in six different activities, namely, pan shop, hotel, cycle shop, wood selling, bangle vendor and fruit vendor.

Incomes of the beneficiary families without IRDP and with IRDP activity during the year 1983-84 are cross tabulated and presented in Table 11.3.4.

Table 11.3.4: Distribution of 51 sample families in Tertiary Sector according to income without and with IRDP during 1983-84

Income class : without IRDP	Income class : With IRDP													
	-Upto 500	-500 1000	+upto 1500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
Upto 500	-	1	-	-	-	-	-	-	-	-	-	-	-	-
1000	-	-	-	-	-	-	1	-	-	1	-	-	-	-
1500	-	-	-	-	-	2	-	-	-	1	-	-	-	-
2000	-	-	-	-	-	1	-	1	-	-	-	-	-	-
2500	-	-	-	-	-	-	-	1	-	-	-	-	-	-
3000	-	-	-	-	-	1	-	2	-	1	-	1	-	-
3500	-	-	-	-	-	1	-	-	-	1	1	-	-	-
4000	-	-	-	-	-	-	-	1	1	-	-	1	1	-
4500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5000	-	-	-	-	-	-	-	-	-	-	-	-	1	-
5500	-	-	-	-	-	-	-	-	-	-	-	1	2	-
6000	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7500	-	-	-	-	-	-	-	-	-	-	1	-	-	-
8000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9500	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
above 10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	1	-	-	-	5	1	5	1	4	2	3	5	-

contd.

Table 11.3.4 : (contd.)

Income class : without IMDP (Rs.)	Income class : With IMDP									Total
	6500	7000	7500	8000	8500	9000	9500	10000	Above 10000	
Upto 500	-	-	-	-	-	-	-	-	-	1
" 1000	-	-	-	-	-	-	-	-	-	2
" 1500	-	-	-	-	-	-	-	-	-	3
" 2000	-	-	-	-	-	-	-	-	-	2
" 2500	1	-	-	-	-	-	-	-	-	2
" 3000	-	-	-	-	-	-	-	-	-	5
" 3500	-	-	-	-	-	-	-	-	-	3
" 4000	-	-	-	-	-	-	-	-	2	6
" 4500	-	1	-	-	-	1	-	-	-	2
" 5000	-	-	-	-	-	-	-	-	-	1
" 5500	-	-	-	-	-	-	-	-	3	6
" 6000	-	-	1	-	-	-	-	-	-	2
" 6500	-	-	-	1	-	-	-	-	-	1
" 7000	1	1	-	-	-	-	-	-	-	2
" 7500	-	-	-	-	1	-	-	-	1	3
" 8000	-	-	-	-	-	-	-	-	-	2
" 8500	-	-	-	-	1	1	-	-	-	2
" 9000	-	-	-	-	-	1	-	-	-	1
" 9500	-	-	-	-	-	-	1	-	-	1
" 10000	-	-	-	1	-	-	-	1	-	1
Above 10000	-	-	-	-	-	-	-	-	6	6
Total	2	2	1	1	2	3	1	-	12	51

CHAPTER XII

ALL SECTORS : SELECT ANALYSIS

12.1 Repayment Performance

In the total sample of 353 cases, there were 49 cases of cash credit. Keeping these 49 cases aside, there remain 304 cases for which the performance in terms of repayment was examined. There were 72 cases where the repayment of loan was fully done in the sense that there was nil outstanding from those 72 beneficiaries as on the 31st August 1984. The remaining 232 cases were analysed in terms of percentage of recovery.

The percentage of recovery was defined as
$$\frac{\text{total actual repayment}}{\text{expected repayment}} \times 100$$
. In total actual repayment, the subsidy credited was not included. This is actual payment done by the beneficiary since the time he took loan till the 31st August 1984. Expected repayment was computed on the basis of the instalments the beneficiary was supposed to pay during this period. The periodicity and the amount of instalment was taken into consideration while computing this. Obviously, subsidy was not included in this also. Thus, the percentage recovery reflects the true picture of beneficiaries' repayment performance. This percentage was computed for each case separately and also for each category of activity at the group level. Percentage of recovery at the individual level was tabulated across the activities as well.

Table 12.1.1 gives the distribution of 232 beneficiaries according to the percentage class of recovery and the purpose of loan. There are as many as 75 cases who have repaid the amounts more than they were expected to. There are 29 cases who paid between 90 and 100 per cent and 12 who paid between 80 and 90 per cent. There are 19 cases paying less than 10 per cent. If these are divided into two groups, there are only 70 (30.17 per cent) cases paying less than 50 per cent whereas there are 162 (78.83 per cent) cases who have paid more than 50 per cent. These figures do suggest that these beneficiaries had good repayment performance.

In the same table one can look into the percentage distribution for each activity. In the primary sector each activity has quite a good number of beneficiaries with high percentage of repayment. The position in the activities in the secondary sector is comparatively poor and again in the tertiary sector it is not bad. In the Table 12.1.1 the distribution of 72 cases with nil outstanding is also presented according to the purpose. Of these 72 cases, there are 25 from dairy cattle and 10 from cobblers.

Table 12.1.2 gives purposewise actual repayment, expected repayment and percentage of recovery in Jath taluka. Here the computations are at the group level in the sense that for an activity the totals of actual repayment and expected repayment of all the beneficiaries in this activity are taken and then the percentage is computed. This is done separately for each

Table 12.1.1: Distribution of Beneficiaries According to the Percentage of Recovery and the Purpose of Loan

Purpose	Percentage of Repayments											Total	Cases with nil out-standing	Grand Total
	10	20	30	40	50	60	70	80	90	100	100			
11 Minor irrigation	5	1	-	-	3	22	5	1	4	19	15	55	1	56
13 Bullock cart/Pair	-	-	-	-	-	1	1	1	-	1	12	16	2	18
14 Dairy	3	2	33	4	5	6	7	6	3	2	16	57	25	82
15 Sheep and Goat	4	0	1	2	6	-	1	2	2	3	19	40	5	45
Primary	12	3	4	6	14	9	14	10	9	25	62	168	33	201
22 Leather work	2	5	1	2	3	1	2	-	-	-	2	18	10	28
23 Carpentry	1	-	1	-	-	-	-	-	-	-	-	2	-	2
24 Rope-making	-	1	-	-	4	-	-	-	-	-	-	5	3	8
27 Basket making	-	-	-	-	-	-	1	-	-	-	-	1	7	8
29 Others	-	-	-	-	-	-	-	-	1	-	-	1	4	5
Secondary	3	6	2	2	7	1	3	-	1	-	2	27	24	51
31 Tailoring	2	-	-	-	-	2	-	-	-	-	-	4	1	5
32 Provision shop	-	-	-	-	1	-	-	-	1	1	1	4	4	8
33 Pan shop	1	-	-	-	1	1	-	-	-	-	1	4	-	4
34 Hotel	-	-	1	1	-	-	-	1	-	-	2	5	2	7
35 Laundry	-	-	-	-	-	-	-	-	-	-	-	-	1	1
36 Cutting saloon	-	-	-	-	-	-	-	1	-	-	-	1	-	1
37 Cycle shop	1	-	-	-	-	-	-	-	-	1	4	6	1	7
38 Others	-	1	-	2	-	3	-	1	1	2	3	13	6	19
Tertiary	4	1	1	3	2	6	-	3	2	4	11	37	15	52
Total	19	10	7	11	23	16	17	13	12	29	75	232	72	304
Percentage	8.19	4.31	3.01	4.74	9.91	6.90	7.33	5.60	5.17	12.50	32.34	100.00		

Table 12.1.2: Sectorwise Recovery Position in Jath Taluka

Purpose	No. of cases	Total actual repayment	Total expected repayment	Percentage of recovery
(1)	(2)	(3)	(4)	(5)
11 Minor irrigation	34	41015.87	50562.87	81.12
13 Bullock cart/Pair	4	3060.00	4000.00	76.50
14 Dairy	31	22437.25	28504.00	78.72
15 Sheep and Goat	39	26444.47	28190.00	93.81
Sub Total	108	92957.59	111256.87	83.55
22 Leather work	18	7100.87	14830.00	47.88
23 Carpentry	3	655.00	5730.00	11.43
24 Rope-making	4	1079.33	3360.00	32.12
27 Basket making	1	600.00	880.00	68.18
29 Others	1	761.00	850.00	89.53
Sub Total	27	10196.20	25650.00	39.75
31 Tailoring	2	00.00	1080.00	00.00
32 Provision shop	3	7372.88	9040.00	81.56
33 Pan shop	4	6754.35	8280.00	81.57
34 Hotel	5	5108.30	8270.00	61.77
36 Cutting saloon	1	126.00	160.00	78.75
37 Cycle shop	5	8784.83	11890.00	73.88
38 Others	9	6560.71	11430.00	57.40
Sub Total	29	34707.07	50150.00	69.21
Grand Total	164	137860.86	187066.87	73.70

taluka and then for the two talukas together.

For Jath (taluka 1), the percentage of recovery is the highest in the primary sector being 83.55 per cent, in the secondary sector it is only 39.75 per cent and in the tertiary sector it is 69.21 per cent. It is interesting to note that the recovery for the sheep and goat is as high as 93.81 per cent. The lowest percentage of recovery is from the two tailors who paid back nothing, the next from the bottom are the three carpenters who paid only 11.43 per cent. Apart from these two categories, there is only one category that of cobblers where the percentage of recovery is less than 50 per cent and it is 47.88. At the aggregate level the percentage of recovery in Jath taluka is 73.70.

In the case of Walwa taluka, (Table 12.1.3) there are no cases in the secondary sector belonging to this set of 232 cases under discussion. The percentage of recovery is still on the higher side than the first taluka. There is no activity with less than 50 per cent recovery; the lowest recovery is 56.40 per cent by the two tailors. On the highest level the recovery is 218.00 per cent by a sole beneficiary of sheep and goat, another sole cycle shop beneficiary has 151.77 per cent recovery. These are activities with small number of beneficiaries. The three major activities of minor irrigation, bullock carts and dairy cattle have percentage of recovery of 89.40, 122.04 and 71.18 respectively. At the aggregate level the recovery percentage works out to be 92.18.

In the Table 12.1.4 the combined data for Jath and Walwa talukas are presented. The aggregate per cent of recovery is 82.11. In the primary sector the combined percentage of recovery is 89.18 and in the tertiary sector it is 74.00. The percentage of recovery is very poor in the secondary sector being meagre 39.75 per cent.

Table 12.1.3 : Sectorwise Recovery Position in Walwa Taluka
Amount in (Rs.)

Purpose	No. of cases	Total Actual Repayment	Total Expected Repayment	Percentage of Recovery
(1)	(2)	(3)	(4)	(5)
11 Minor Irrigation	21	57762.46	64612.50	80.40
13 Bullock cart/pair	12	41248.45	33800.00	122.04
14 Dairy	26	22227.97	31230.00	71.18
15 Sheep and Goat	1	1090.00	500.00	218.00
Sub Total	60	122328.88	130142.50	93.99
31 Tailoring	2	1410.00	2500.00	56.40
32 Provision Shop	1	1837.50	1900.00	96.71
37 Cycle Shop	1	3338.91	2200.00	151.77
38 Others	4	15158.39	19533.00	77.60
Sub Total	68	144073.68	156275.50	92.19

Table 12.1.4: Sectorwise Recovery Position in Jath and Walwa Talukas combined.

Purpose	No. of Cases	Total Actual Repayment Rs.	Total Expected Repayment Rs.	Per-centage of Re-covery
(1)	(2)	(3)	(4)	(5)
11 Minor Irrigation	55	98778.33	115175.37	85.76
13 Bullock cart/pair	16	44308.45	37800.00	117.21
14 Dairy	57	44665.22	59734.00	74.77
15 Sheep and Goat	40	27534.47	28690.00	95.97
Sub Total	168	215286.47	241399.37	89.18
22 Leather Work	18	7100.87	14830.00	47.88
23 Carpentry	2	400.00	5190.00	7.71
24 Rope-making	5	1334.33	3900.00	34.21
27 Basket making	1	600.00	880.00	68.18
29 Others	1	761.00	850.00	89.53
Sub Total	27	10196.20	25650.00	39.75
31 Tailoring	4	1410.00	3580.00	39.39
32 Provision Shop	4	9210.38	10940.00	84.19
33 Pan Shop	4	6754.35	8280.00	81.57
34 Hotel	5	5108.30	8270.00	61.77
36 Cutting Saloon	1	126.00	160.00	78.75
37 Cycle Shop	6	12123.74	14090.00	86.04
38 Others	13	21719.10	30963.00	70.14
Sub Total	37	56451.87	76283.00	74.00
Grand Total	232	281934.54	343332.37	82.11

Repayment Performance and Income

The repayment performance was further examined with a view to finding out whether it has any relationship with the economic conditions of the beneficiary families. For this, three variables were considered, namely, total income of the family, retainable income of the family obtained through IRDP activity and per capital total income of the family. Total income here means income of the family during the year 1983-84 with IRDP activity included. Three exercises were separately carried out. For each variable, appropriate classes were made and the beneficiaries were classified according to these classes. In each class, the percent of repayment was computed. These percent figures are presented in Tables 12.1.5, 12.1.6 and 12.1.7 for Jath taluka and in Tables 12.1.8, 12.1.9 and 12.1.10 for Walwa taluka. These percentages figures do not indicate existence of relationship between repayment performance and any of these three variables in either of the talukas. It is clear that the differences in repayment performance can not be explained through the total income of the family, per capita income of the family or the retainable income obtained through the IRDP activity. The explanation of differences perhaps could be found in some other socio-political variables. This was not attempted.

It may be mentioned here that in the group of cobblers, six cases from Jath having very high incomes were dropped from the detailed analysis as mentioned in Chapter X. These were

also dropped from this exercise. But of these six, only three were included in the 164 cases of Jath (Table 12.1.2), the other three being 'nil' cases. Therefore, the frequency of 164 in Jath got reduced to 161 for this exercise. The figures of actual and expected repayments and also percentage payment were, therefore, slightly different at the aggregate level in these tables of Jath.

12.2 Incremental Capital Output Ratio

The incremental capital output ratios calculated for various activities have already been presented in respective chapters. Here, overall incremental capital output ratio for all sectors combined is computed. For this, the total investment in all the sectors is taken into consideration. The total retainable income in each sector is added to get overall total. This overall total retainable income is divided by the total activity months (activity months of all activities added together) to get the overall average retainable income per beneficiary per month. Using this average the incremental capital output ratio is computed which worked out to be 4.90. The results of this are presented in Table 12.2.1. The incremental capital output ratio was maximum for bullock cart/pair sector (Ch.IX) being 7.08; it was minimum in the secondary sector being 1.85 (Ch.X). Average retainable income in goat rearing activity was negative. The ICOR in minor irrigation was 4.74 (Ch. VII), in dairy (Ch.VI) it was 2.69 and in tertiary sector (Ch.XI) it was 1.97.

Table 12.1.5 : Repayment performance of 161 cases in Jath Taluka according to Total Income (with IRDP) during 1983-84.

Income class: with IRDP (Rs.)	No. of cases	Percentage of Recovery
-ve cases		
-500 to 0	7	89.66
Sub-total -ve	7	89.66
+ve cases		
Upto 500	5	103.25
" 1000	6	31.06
" 1500	6	57.94
" 2000	15	41.52
" 2500	15	81.46
" 3000	11	67.66
" 3500	14	56.35
" 4000	12	103.50
" 4500	3	52.69
" 5000	10	92.97
" 5500	10	88.74
" 6000	3	19.95
" 6500	4	95.62
" 7000	5	98.95
" 7500	6	88.11
" 8000	4	81.27
" 8500	4	121.47
" 9000	5	79.03
" 9500	2	70.74
" 10000	1	100.00
Above 10000	13	70.58
Sub total (+ve)	154	73.05
Grand Total	161	73.84

Table 12.1.6 : Repayment performance of 161 cases in
Jath Taluka according to Retainable
Income per month during 1983-84.

Income class : Retainable Income (Rs.)	No. of cases	Percentage of Recovery
-ve cases		
Below -100	12	53.89
-100 to -50	22	53.41
50 to 0	41	69.38
Sub-total (-ve)	75	62.08
+ve cases		
Upto 50	34	84.21
" 100	16	57.78
" 150	10	95.79
" 200	5	106.47
" 250	6	124.43
" 300	2	66.58
" 350	3	129.36
" 400	2	122.41
" 450	1	123.18
" 500	1	9.19
" 550	2	115.93
" 600	-	-
" 650	1	68.19
" 700	-	-
" 750	1	36.93
"	-	-
"	-	-
Above 1000	2	59.75
Sub-total(+ve)	86	86.69
Grand Total	* 161	73.84

Table 12.1.7: Repayment performance of 161 cases in Jath Taluka according to per capita Income during 1983-84

Income Class : per capita (Rs.)	No. of cases	Percentage of Recovery
-ve cases		
-500 to 0	7	89.66
Sub-total (-ve)	7	89.66
+ve cases		
Upto 500	35	53.44
" 1000	51	79.91
" 1500	28	86.93
" 2000	10	59.84
" 2500	10	100.76
" 3000	7	104.85
" 3500	2	54.78
" 4000	-	-
Above 4000	7	45.16
Sub-total (+ve)	154	73.05
Grand Total	161	73.84

Table 12.1.8 : Repayment performance of 68 cases in Walwa Taluka according to Total Income (with IRDP) during 1983-84.

Income Class: with IRDP (Rs.)	No. of cases	Percentage of Recovery
-ve cases		
-500 to 0	1	218.00

Sub-total (-ve)	1	218.00

+ve cases		
Upto 500	-	-
" 1000	1	56.00
" 1500	11	100.00
" 2000	3	110.56
" 2500	3	77.34
" 3000	5	65.96
" 3500	1	69.09
" 4000	33	100.87
" 4500	7	75.84
" 5000	3	94.61
" 5500	2	105.54
" 6000	1	97.81
" 6500	2	118.92
" 7000	6	105.09
" 7500	1	121.06
" 8000	-	-
" 8500	2	98.89

(contd.)

Table 12.1.8 (contd.)

Income Class: with IRDP	No. of cases	Percentage of Recovery
Upto 9000	6	92.53
" 9500	3	86.68
" 10000	1	100.00
Above 10000	16	91.29
Sub-total (+ve) ..	67	91.79
Grand Total	68	92.19

Table 12.1.9: Repayment performance of 68 cases in Walwa Taluka according to Retainable Income per month during 1983-84

Income Class per capita (Rs.)	No. of cases	Percentage of Recovery
-ve cases		
Below -100	2	91.64
-100 to -50	3	72.22
-50 to 0	12	110.28
Sub total (-ve)	17	97.41
Upto 50	19	91.84
" 100	14	96.48
" 150	4	69.32
" 200	2	90.95
" 250	3	94.72
" 300	1	102.27
" 350	1	100.00
" 400	-	-
" 450	3	83.42
" 500	1	0.00
" 550	-	-
" 600	3	113.49
Sub-total (+ve)	51	90.37
Grand Total	68	92.19

Table 12.1.10 : Repayment performance of 68 cases in
Walwa Taluka according to per capita
Income

Income Class: per capital (Rs.)	No.of cases	Percentage of Recovery
-ve cases		
-500 to 0	1	218.00
Sub total (-ve)	1	218.00
+ve cases		
Upto 500	8	95.54
1000	22	90.31
1500	14	96.25
2000	10	99.18
2500	4	75.74
3000	3	103.83
4000	1	0.00
Sub total (+ve)	67	91.78
Grand Total	68	92.19

Table 12.2.1 : Incremental Capital Output Ratio : All Sectors

Sr. No.	Item	
1.	No. of beneficiaries	292
2.	Total activity months	5259
3.	Total Investments (Rs.)	12,30,444
4.	Total Net Incremental Income (Rs.)	6,18,660
5.	Average net incremental Income per beneficiary per month (Rs.)	117.64
6.	Average instalment per beneficiary per month (Rs.)	66.93
7.	Average retainable income per beneficiary per month (Rs.)	71.72
8.	Average investment per beneficiary (Rs.)	4,214
9.	Capital output ratio	4.90 : 1

The overall ICOR for all sectors worked out to be 4.90. This figure is quite close to the figure 4 which was expected* ICOR in these investments.

12.3 Crossing the Poverty Line

The methodology adopted to find out whether a beneficiary family is below the poverty line or above and also to examine whether the IRDP has helped in crossing the poverty line has been explained in Chapter III on Methodology. The results have been presented for each sector in the corresponding chapters. Here, these results are brought together and presented in tabular form. Sectorwise tables are presented first and then the aggregate tables.

While aggregating the sectorwise tables, care had to be taken in respect of those beneficiary families who had availed of IRDP facilities twice. As mentioned in Chapter IV there were 12 beneficiaries who had taken such benefit. Of these, four beneficiaries were rural artisans who took IRDP subsidy on their old cash credit (KVIC) at one time and second time took IRDP loan from commercial bank. They were included in 49 old (KVIC) cases which were not analysed as far as their first subsidy is concerned. Their loan from commercial bank being during the year 1982-83, these cases were taken for analysis in respective cases for this loan and thus they were not effectively double cases with reference to analysed cases.

* Agenda notes for the IX State Level Coordination Committee on IRDP/DPAP, Rural Development Department, Government of Maharashtra, May, 1983, page 13.

The remaining eight cases were double cases for our purpose. Of these, two beneficiaries took the loan for carpentry both the times and one took loan for jute bag business both the times. They were counted once in their respective sectors. For each of the remaining five, one loan was ^{for} minor irrigation and the second in three cases was for dairy and in two cases for cycle shop. While analysing the impact of IRDP in sectorwise analysis only the corresponding IRDP activity was taken into consideration. Therefore, for these five cases since the two activities were different, the IRDP impact has to be obtained by adding the impact in the two activities. Incremental incomes from the two activities together in the total incremental income for this type of family. Thus, while aggregating the Tables 12.3.1 to 12.3.18 two things were attended to namely that APL/BPL movement in respect of these families was considered on the basis of two activities added and that these families were counted only once for frequencies. As all these families were from Jath taluka, the total frequency in aggregate Table 12.3.19 was less by 5 than the total of six sectors.

A comment on total frequency in Table 12.3.21 for two talukas together is necessary. This total is 279. The total number of cases taken up for analysis were 304 as mentioned in chapter IV. The difference of 25 is because some cases were excluded while doing more detailed analysis sectorwise, for example, the infructuous cases of minor irrigation, cases of dairy where animal was not purchased, very high income cases

of cobblers, etc., and also because in Table 12.3.21 double cases are counted only once.

Table 12.3.19 shows that taking all sectors together there were 71 families above poverty line out of total 185 families in Jath. In other words 38 percent beneficiaries who received IRDP facilities were not poor. In the case of Walwa, out of 94 families as many as 50 were above poverty line. That means 53 per cent of the beneficiaries were not poor. Considering the two talukas together 121 families were above poverty line out of 279 that is 43 per cent.

In Jath taluka 17 families out of 114 families which were below poverty line had crossed the poverty line in 1983-84. In Walwa 6 families out of 44 did so. Thus, in all only 23 out of 158 families 14.55 percent had crossed the poverty line.

From these tables it is also seen that some families who were above poverty line moved below the poverty line. This happened because the retainable incomes of these families were negative and large. At the total level (Table 12.3.2.1) there were six such families.

Tables showing the position of the beneficiary families as below poverty line (BPL) or above poverty line (APL) without and with incremental income from IRDP during 1983-84 (Tables 12.3.1 to 12.3.21).

Table 12.3.1 : Dairy : Jath

Family Income: without IRDP	Family Income:with IRDP		Total
	BPL	APL	
BPL	23	2	25
APL	1	12	13
Total	24	14	38

Table 12.3.2 : Dairy : Walwa

Family Income: without IRDP	Family Income:with IRDP		Total
	BPL	APL	
BPL	25	1	26
APL	-	13	13
Total	25	14	39

Table 12.3.3 : Dairy : Jath & Walwa

Family Income: without IRDP	Family Income: with IRDP		Total
	BPL	APL	
BPL	48	3	51
APL	1	25	26
Total	49	28	77

Table 12.3.4 : Minor Irrigation : Jath

Family Income : without IRDP	Family Income:with IRDP		Total
	BPL	APL	
BPL	11	4	15
APL	1	11	12
Total	12	15	27

Table 12.3.5: Minor Irrigation : Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	6	4	10
APL	-	11	11
Total	6	15	21

Table 12.3.6 : Minor Irrigation : Jath & Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	17	8	25
APL	1	22	23
Total	18	30	48

Table 12.3.7 : Sheep Rearing & Goatry : Jath

Family Income : Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	31	2	33
APL	4	5	9
Total	35	7	42

Table 12.3.8 : Sheep Rearing & Goatry : Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	2	-	2
APL	-	1	1
Total	2	1	3

Table 12.3.9 : Sheep Rearing & Goatry : Jath & Walwa

Family Income: Without IRDP	Family Income:with IRDP		Total
	BPL	APL	
BPL	33	2	35
APL	4	6	10
Total	37	8	45

Table 12.3.10 : Bullock Pair : Jath

Family Income : Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	1	1	2
APL	-	4	4
Total	1	5	6

Table 12.3.11: Bullock cart : Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	2	1	3
APL	1	8	9
Total	3	9	12

Table 12.3.12 : Bullock cart/pair : Jath & Walwa

Family Income: With IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	3	2	5
APL	1	12	13
Total	4	14	18

Table 12.3.13 : Rural Artisan : Jath
(Secondary Sector)

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	18	2	20
APL	1	17	18
Total	19	19	38

Table 12.3.14: Rural Artisan : Walwa
(Secondary Sector)

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	1	-	1
APL	-	6	6
Total	1	6	7

Table 12.3.15 : Rural Artisan : Jath & Walwa
(Secondary Sector)

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	19	2	21
APL	1	23	24
Total	20	25	45

Table 12.3.16 : Tertiary Sector : Jath

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	16	6	22
APL	-	17	17
Total	16	23	39

Table 12.3.17 : Tertiary Sector : Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	2	-	2
APL	1	9	10
Total	3	9	12

Table 12.3.18 : Tertiary Sector : Jath & Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	18	6	24
APL	1	26	27
Total	19	32	51

Table 12.3.19 : All Sector : Jath

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	97	17	114
APL	6	65	71
Total	103	82	185

Table 12.3.20 : All Sector : Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	38	6	44
APL	2	48	50
Total	40	54	94

Table 12.3.21 : All Sector : Jath & Walwa

Family Income: Without IRDP	Family Income:With IRDP		Total
	BPL	APL	
BPL	135	23	158
APL	8	113	121
Total	143	136	279

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