Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP I

Final Report Submitted to:

PMU, National Dairy Development Board
Anand - 388 001, Gujarat

Study Conducted by:

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FOREWORD

We were glad to know that the present study titled 'Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Populations under NDP I" was entrusted to Xavier Institute of Social Service (XISS), Ranchi, by the Project Management Unit (PMU)of the National Dairy Development Board (NDDB), Anand, through its Contract No.: PMU/Cons-F/015 dated 29.01.2018. We appreciate the Project Management Unit (PMU), National Dairy Development Board (NDDB), Anand, for acknowledging our expertise and quality of research.

We would like to sincerely thank all those who have rendered their help to us in various sways in successfully completing this endeavour. The first on foremost we thank the officials and the staff of the Project Management Unit (PMU), National Dairy Development Board (NDDB), Anand in conducting three days' orientation for the researchers to make them understand the research context. It was they who provided valuable guidance to our researcher and investigating teacm time to time. We also thank the EIAs/Milk Federations of the ten states for extending their generous cooperation to our investigating teams while they were in the field for data collection. They not only provided us with the beneficiary details and supplied local men conversant in the local langage, but also went out of their way to make arrangments for accommodation and vehicles for smooth movements. We also thank all the respondants for giving their valuable time in supplying the information.

We, at Xavier Institute of Social Service, Ranchi, are exeamnly happy to present this report with its findings as we are sure it will provide clear direction to the NDDB in disiminating various services efficiently with more inclusively approach. We are confident that it will certainly help in planning various strategies thereby making the dairying as a flourishing business. In a very little way though, by ubdertaking this research project we feel proud that we could share the vision and mission of the founders of the NDDB. We look forward to more such opportunities of collaboration in future.

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ACKNOWLEDGEMENT

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Abbreviation

1. AI – Artificial Insemination
2. AMCU - Automated Milk Collection Units
3. AMRUTH - Atal Mission for Rejuvenation and Urban Transformation
4. BMC – Bulk Milk Cooler
5. BPL – Below Poverty Line
6. CMP – Clean Milk Production
7. DAM – Diary Animal Management
8. DCS – Diary Cooperative Society
9. DPMCU – Data Processor Milk Collection Units
10. EIA - End Implementing Agency
11. FDP – Fodder Development Program
12. FGD - focus group discussion
13. GRO - grievance redressal officer
14. ICT - Information and communications technology
15. IDDP - Integrated Dairy Development Programme
16. ITDA - Integrated Tribal Development Agency
17. ITDP - Integrated Tribal Development Programme
18. JMF – Jharkhand Milk Federation
19. LEO - lady extension officer
20. LH&DC - Livestock Health & Disease Control
21. LIC- Life Insurance Corporation
22. LRP - local resource person
23. MAIT – Mobile Artificial Insemination Technician
24. MCRB - Mulukanoor Cooperative Rural Bank
25. MIS – Management Information System
26. MU – Milk Union
27. MWCD - Mulukanoor Women Cooperative Dairy
28. NABARD - National Bank for Agriculture & Rural Development
29. NDDB – National Diary Development Board
30. NDP-1 – National Diary Plan-1
31. NGO – Non Government Organization
32. NPBBDD - National Programme on Bovine Breeding and Dairy Development
33. OBC – Other Backward Caste
34. PC - Producers Companies
35. PM&L - Project Management and Learning
36. PMJJBY – PradhanMantriJeevanJyotiBeemaYojna
37. PMJSBY – Pradhan MantriJeevanSurkshaBeemaYojna
38. PMU - -Project Management Unit
39. PRI – Panchayati Raj Institution
40. RBP – Ration Balancing Program

41. RKVY – Rashtriya Krishi Vikas Yojana
42. SC – Schedule Caste
43. SD – Standard Deviation
44. ST – Schedule Tribe
45. ToR - Terms of Reference
46. VBMPS - Village Based Milk Procurement System
47. WMPCS - Women Milk Producers' Cooperative Societies Ltd.
48. XISS – Xavier Institute of Social Service

Executive Summary

1.1 Introduction

The present study titled "Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP I" attempts to evaluate the access and impacts of projects' interventions towards achieving social inclusion and empowerment of the SC/ST community members in the project implementation area.

2.1 Objectives of the Study

The present study was conducted keeping in mind the following specific objectives:

1. To assess the access of SC and ST communities to project services and capacity building interventions,
2. To assess the barriers to entry (both explicit and implicit) of SC and ST communities to project services and capacity building interventions,
3. To assess the impact of project interventions on the social and economic empowerment and quality of life of SCs and STs at the level of beneficiaries, project functionaries and management committee members in dairy institutions (DCS and MPPs),
4. Identify challenges in adopting dairying as livelihood options for these communities,
5. Document successful Case Studies and Best Practices and identify the factors which played major role,
6. How convergence with other schemes and programs has enhanced the impact of the project on these communities.

3.1 Coverage Area of the Study

The National Dairy Plan - Phase I (NDP I) has covered of 18 major dairying states of India. Out of these 18 states, the present study has been carried out in 10 selected states which have significant proportion of SC and ST population. The selected states were: Jharkhand, Chhattisgarh, Odisha, West Bengal, Madhya Pradesh, Gujarat, Rajasthan, Maharashtra, Telangana and Karnataka.

4.1 Sample Size

In the present study 10 states were selected for field survey based on the significant presence of SC/ST population. In each state, the sample size was 500 households and thus total sample size for the study in all the 10 states was 5000. Besides, 200 project functionaries from 10 states were selected for qualitative filed survey. Thus, 20 project functionaries from each state were selected in such a way that out of 20, 12 (60%) belonged to the SC/ST while 8 (40%) were from Non-SC/ST Category.

5.1 Methods of Data Collection

Both quantitative and qualitative techniques were employed in the field for collection of primary data, apart from utilizing the existing data available from secondary sources. The study used survey as the major method for primary data collection apart from using a few other qualitative methods for supplementing them. Quantitative data was collected from the sample households and respondents through the administration of interview schedules. Qualitative data however, was collected through a combination of several techniques like Focus Group Discussion, in-depth interview and case study to cover different aspects of issues concerned.

6.1 Data Analysis and Interpretation

Data collected from primary sources was first entered in SPSS data sheet. The Analysis and interpretation of the data collected from primary and secondary sources were carried out finally summarizing the overall findings. The quantitative data has been presented through different tables and its analysis carried out by using statistical techniques such as Cross Tabulation and Central Tendency, Dispersion, Z analysis, paired 't' analysis, ANOVA, etc.The qualitative data was analyzed through Description and Explanation along with the help of Verbatim wherever possible.

7.1 Major Findings

It was found that SC/ST beneficiary households differ significantly from the non-SC/ST beneficiaries in terms of number of children, education level, land holding and type of house possessed. The SC/ST beneficiary households had significantly greater number of children, less education, less land holding and less number of pucca houses as compared to the non-SC/ST beneficiaries. Hence, on an average the non-SC/ST beneficiary households were better off than the SC/ST beneficiary households in terms of their demographic characteristics.

It was revealed that the SC/ST beneficiary households were significantly more involved in dairying activities as compared to the non-SC/ST beneficiary households. This may be due to less land holding or knowledge about dairying possessed by the former than the latter. This shows that the vulnerable and marginalized populations like SC/ST communities are dependent more on dairying than the communities who are better off. On the other hand, the non-SC/ST beneficiary households are more involved in Agriculture as compared to the SC/ST beneficiary households.

The SC/ST community was appropriately included in the various project activities wherever they were present in appreciable numbers. The access of SC and ST communities to various project activities and services was assessed using z and ANOVA tests. However, there still exists a scope to better inform these communities about various programmes and projects and theiractivities so that they can opt for them on a large scale.

The result of the access of SC and ST communities to DCS enrolment and services of automated Milk Collection Units (AMCUs) were found not to be significantly different as compared to that of non-SC/ST households. This implies that the SC/ST Beneficiary households were provided access equal to that of non-SC/ST households to DCS enrolment and its services. .

Taking the z value into consideration for the services of Milk Cans, Weighing and Testing Equipments availed, the result was found not to be significantly different from that of non-SC/ST households; which implies that the services of DCS were provided equitably to the SC/ST Beneficiaries as well as to to the non-SC/ST beneficiaries.

The result with regard to the RBP Advisory Services availedby SC/ST beneficiaries was found not to be significantdifferent from that of non-SC/ST beneficiaries. This implies that ;RBP services were provided to all the beneficiaries irrespective of their caste or creed.

The result of the analysis of the Certified and Truthfully Labeled (CTL) Fodder Seeds availed was found to benot significant, which implies that the benefits of CTL seeds were provided equitably to the SC/ST Beneficiaries as well as to the non-SC/ST Beneficiaries.

The result of the Silage/ Mower Demonstration Programmes Attended shows that the programmes were attended significantly higher by the non- SC/ST Beneficiaries as compared to the SC/ST beneficiaries.

The result of the Artificial Insemination Service availed under NDP I was not found to be significant. This implies that all beneficiaries had equal access to AI service irrespective of their caste.

The result of the Training and Capacity Building Programmes Attended under NDP I was found to be not significant, which imlies that the training and capacity building programmes of NDP I were accessed equally by the SC/ST as well as non-SC/ST beneficiaries. .

It was observed that in most of the cases, non-SC/ ST beneficiaries have availed more services of the project as compared to SC/ ST beneficiaries due to more information and awareness in general about the project activities. However, SC/ ST beneficiaries have the access and availability of many dairy-related services as compared to the SC/ ST non-beneficiaries due to the impact of the project.

The impact of project interventions on social and economic empowerment and quality of life of the Beneficiaries was assessed by comparing ANOVA and F test scores to find out its significance levels. In view of the SC/ ST beneficiaries, the interventions of NDP I have added significantly to their income over time.In addition, these communities have also benefitted from the aids from the government and NGOs. According to them, NDP I interventions have significantly reduced distress migration as well. However, among the non-beneficiaries, the vulnerability of SC/ST is not just more than that of Non-SC/ST category but the difference is statistically significant too.

The F-test revealed that there was no significant difference among different categories of beneficiaries in terms of susceptibility to credit and indebtedness, indicating that the SC/ST communities are not particularly susceptible to credit and indebtedness as compared to the general category beneficiaries and all have benefitted equally from NDP I.

The Impact of NDP I on social empowerment was also assessed. The F test result for involvement in decision making on social issues shows that, the difference between the SC/ST and Non SC/ST categories of beneficiaries is statistically significant indicating that the non-SC/ST beneficiaries are more involved in decision making on social issues as compared to the SC/ST beneficiaries. This can probably be understood by considering the fact that though economic condition of the SC/ST beneficiaries may have improved over time. They have not been able to overcome the age old social barriers that still exist.

While assessing the opportunity for raising the voice on social issues, the mean score for the Non SC/ST respondents is higher than that for SC/ST respondents among the beneficiaries, and such difference is statistically significant which is understandable as social dynamics do not change overnight. Thus, it may take some time before these communities can participate holistically in all the project activities.

Perception has an important correlation with the success of any initiative including dairy farming. It was noted that even when the information on various services and benefits of NDP I were provided to the people, they took time to change their perceptions about them. The response of the SC/ST villagers to the project interventions at the initial stage was mild in comparison to the Non SC/ST people. However, the participation of the SC/ST community gradually increased in the project activities.

Perception of the stake holders equally matters for the success of any initiative.. When project functionaries were not aware about the benefits of the dairy farming, their response to such venture was low. But when they got convinced, they respondedand participated in the project activities whole heartedly. From the stake holder interviews conducted also, it was noted that the participation of the SC/ST community gradually increased during the project implementation period. It is also noted that the impact of NDP I is evident on the perception and awareness of the SC/ST households from the fact that the participation of the SC/STs improved over time. They have better understanding of cattle care and importance of balanced diet for the cattle now.

This is also supported by the several success stories enlisted at the end of this report.

Conclusion
The NDP I project had a greater impact on the vulnerable and marginalized communities in its intervention area. Also, since these communities were included appropriately at all levels, the benefits from the project were derived properly by these communities. In pursuance of the World Bank guidelines on Indigenous people, wherever these communities reside in large numbers, they were included appropriately in the project activities in order to make them aware about project interventions, build their capacities and empower them so that their poverty could be eliminated and they can move along the path of sustainable development ensuring their dignity, human rights, economies and culture.

Chapter I
Introduction

1.1   Project Background

The National Dairy Plan Phase I (NDP I) is a scientifically planned multi-state initiative to increase milk production by increasing milch animal productivity through a focused approach to breeding and feeding. The NDP I has coverage of 18 major dairying statesof the country. The name of the participating states under NDP I is shown in Table 1.1.

The NDP I has three major components i.e., Component A - Productivity Enhancement, Component B - Village Based Milk Procurement System (VBMPS) and Component C - Project Management and Learning (PM&L). The sub-components under Component - A are breeding and nutrition of livestock (milch animals). The sub-components under Component - B are mobilization and institution building of smallholder milk producers, village level infrastructure development (milk canes, bulk milk coolers, weighing and testing equipment) and training and capacity building of milk producers and other functionaries. The sub-components under Component - C are ICT based MIS and learning and evaluation.

1.2   Objectives of the Study

The present study was conducted keeping in mind the following objectives mentioned listed in the Terms of Reference (ToR):

1. To assess the access of SC and ST communities to project services and capacity building interventions,
2. To assess the barriers to entry (both explicit and implicit) of SC and ST communities to project services and capacity building interventions,
3. To assess the impact of project interventions on the social and economic empowerment and quality of life of SCs and STs at the level of beneficiaries, project functionaries and management committee members in dairy institutions (DCS and MPPs),
4. Identify challenges in adopting dairying as livelihood options for these communities,
5. Document successful case studies and best practices and identify the factors which played major role,
6. How convergence with other schemes and programs has enhanced the impact of the project on these communities.

1.3   Coverage Area of the Study

The National Dairy Plan - Phase I (NDP I) has a coverage of 18 major dairying states all over India namely1. Andhra Pradesh, 2. Bihar, 3. Chhattisgarh, 4.Gujarat, 5.Haryana, 6.Jharkhand, 7. Karnataka, 8.Kerala, 9. Madhya Pradesh, 10. Maharashtra, 11.Odisha, 12.Punjab, 13.Rajasthan, 14.Tamil Nadu, 15.Telangana, 16. Uttar Pradesh, 17. Uttarakhand and 18. West Bengal, which together account for more than 90% of the country's milk production. Out of these 18 states, the present study was carried out in 10 selected states which have significant proportion of the SC/ST population. The states were selected by taking into account the proportion of SC/ST population in a particular state based on the 2011 population census data. The following Table 1.1 comprises of the compilation of aforesaid data.

Table 1.1: List of 18 states with proportion of SC/ST population

Sl. No.	Name of the State	Total Population	SC Population	Proportion of SC Population (in %)	ST Population	Proportion of ST Population (in %)
1	Chhattisgarh	2,55,40,196	32,74,269	12.82	78,22,902	30.63
2	Jharkhand	3,29,66,238	39,85,644	12.09	86,45,042	26.22
3	Odisha	4,19,47,358	71,88,463	17.14	95,90,756	22.86
4	Madhya Pradesh	7,25,97,565	1,13,42,320	15.62	1,53,16,784	21.10
5	Gujarat	6,03,83,628	40,74,447	6.75	89,17,174	14.77
6	Rajasthan	6,86,21,012	1,22,21,593	17.81	92,38,534	13.46
7	Maharashtra	11,23,72,972	1,65,67,325	14.74	1,05,10,213	9.35
8	Telangana	3,52,86,757	54,09,000	15.33	31,78,000	9.01
9	Karnataka	6,11,30,704	1,04,74,992	17.14	42,48,987	6.95
10	West Bengal	9,13,47,736	2,14,63,270	23.50	52,96,953	5.80
11	Andhra Pradesh	4,93,86,799	84,45,398	17.10	26,31,145	5.33
12	Uttarakhand	1,01,16,752	18,92,516	18.71	2,91,903	2.89
13	Kerala	3,33,87,677	30,39,573	9.10	4,84,839	1.45
14	Bihar	10,38,04,637	1,65,67,325	15.96	13,36,573	1.29
15	Tamil Nadu	7,21,38,958	1,44,38,445	20.01	7,94,697	1.10
16	Uttar Pradesh	20,72,81,477	4,13,57,608	19.95	11,34,273	0.55
17	Haryana	2,53,53,081	51,13,615	20.17	-	-
18	Punjab	2,77,04,236	88,60,179	31.98	-	-

Source: Census of India, 2011

Thus, the first 10 states mentioned in the above table were selected for conducting the present study considering the significant presence of both SC/ST population. The selected states were: 1. Jharkhand, 2. Chhattisgarh, 3. Odisha, 4. West Bengal, 5. Madhya Pradesh, 6. Gujarat, 7. Rajasthan, 8. Maharashtra, 9. Telangana and 10. Karnataka.

Chapter II

Methodology and Field Survey

2.1 Research Design

The field study was based on both exploratory and cross-sectional research designs. It intends exploring the reasons behind the issue and studying its causality by finding out answers to questions of what, how and why of the phenomenon. The phenomenon here refers to social inclusion and empowerment. Social inclusion here refers to the process whereby a particular group (viz. SC/ST communities) takes part in society-thereby improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity. Empowerment here refers to the positioning of a particular group (SC/ST) in terms of taking part in the institutional activities with respect to parameters like sharing of opinion, taking part in decision making etc.

The study was being carried out in the following manner:-

- Preparation, pre-testing and finalization of the research tools for field survey. The different types of schedules used for the survey are as follows:
    1. Structured interview schedule for beneficiary households,
    2. Structured interview schedule for non-beneficiary households,
    3. Semi-structured interview schedule for project functionaries and stakeholders.
- Formation of the survey team and preparing them for field survey.
- Pre-testing of schedules prior to the field survey.
- Field survey in all selected villages for primary data collection.
- Collection of secondary data from different offices as required.
- Data entry, data analysis, draft report writing and submission to NDDB, Anand.
- Submission of final report after the incorporation of relevant comments and suggestions from PMU NDDB, Anand and World Bank based on their review of the draft report.

2.2 Sample Size

The National Dairy Plan - Phase I (NDP I) has been implemented in 18 states of India. Out of a total of 18 states, 10 states were selected for field survey based on the significant presence of SC/ST population. In each state, the sample size was 500 households and thus the total sample size for the study in all the 10 states was 5000. Selection of household samples was finalized as per the following criteria:

Table 2.1: Selection of sample households

Sl. No.	Category	Beneficiary Household		Non-Beneficiary Household	
		Per State	In Selected 10 States	Per State	In Selected 10 States
1	SC	150 (30%)	1500 (30%)	25 (5%)	250 (5%)
2	ST	150 (30%)	1500 (30%)	25 (5%)	250 (5%)
3	Non-SC/ST	100 (20%)	1000 (20%)	50 (10%)	500 (10%)
Total		**400 (80%)**	**4000 (80%)**	**100 (20%)**	**1000 (20%)**

Besides the selection of the sample households, 200 project functionaries from 10 states under the study were also selected for the survey. Thus, 20 project functionaries from each

state were selected for the survey in such a way that out of 20, 12 (60%) belonged to the SC/ST category while 8 (40%) were from Non-SC/ST Category. The project functionaries selected were Local Resource Person (LRP), Mobile Artificial Insemination Technician (MAIT), Lady Extension Officer (LEO), Milk Union &Dairy Cooperative Society (DCS) Officials, PRI Elected Representatives and Government Officials like SC/ST Welfare Officers etc.

2.3 Sampling

In the study, multi-stage purposive sampling method was adopted for the selection of samples in the following manner:-

First Stage: Out of a total of 18 states covered under NDP I, 10 states were selected for the study based on the significant presence of SC/ST population as shown in the Table 1.1 under Section 1.3.

Second Stage: In each of the the selected states, 3 End Implementing Agencies (EIAs), i.e. Milk Unions (MUs) were selected based on significant presence of SC/ST milk producers as members. Additionally, based on significant presence of SC/ST milk producers as members, 3 End Implementing Agencies (EIAs) the Producers Companies (PCs) were selected in two states namely Gujarat and Rajasthan. Since, there is no EIA at the district level in Jharkhand and Chhattisgarh states; village selection was done from the coverage area of the milk federation at the state level.

Third Stage: In each EIA, selection of village/Dairy Cooperative Society (DCS) was done again on the basis of significant presence of SC/ST milk producers. Selection of the number of sample villages was dependent upon the availability of adequate number of SC/ST category milk producers in the village. After insuring the adequate number of SC/ST category milk producers in the village, category-wise beneficiary and non-beneficiary household samples were selected for field survey.

The sample size in each state was 500 households, thus, making the total sample size to 5000 in all the 10 states.

2.4 Methods of Data Collection

Both quantitative and qualitative techniques were employed in the field for collection of primary data, apart from utilizing existing data available from secondary sources. The study used survey as the major method for primary data collection apart from using a few other qualitative methods for supplementing them. Quantitative data was collected from the sample households and respondents through the administration of interview schedules. Three different types of interview schedules as enlisted in Section 2.1 were used for conducting the survey. Qualitative data however, was collected through a combination of several techniques like Focus Group Discussion (FGD), in-depth interview and case study to cover different aspects of the various issues concerned. Appropriate case studies for successful cases were recorded for strengthening and supplementing the information generated through survey questionnaires. Secondary data was collected from the census of India, 2011 and the official records of NDDB and other offices.

2.5 Data Analysis and Interpretation

Data collected from primary sources was first entered in SPSS software data sheet. Analysis and interpretation of the data collected from primary and secondary sources was carried out,

summarizing the overall findings at the end. Quantitative data was presented through different tables and analysis was done by using statistical techniques such as Cross Tabulation and Central Tendency, Dispersion, ANOVA, Z analysis, paired 't' test, etc. Data collected through qualitative techniques was analyzed through Description and Explanation along with the help of Verbatim wherever possible.

2.6 Field Survey

As per the scope of the study and sampling methodology employed, the sample size was to be 500 households in each state, including SC/ST and Non-SC/ST categories. Thus, the total sample size for the study covering the 10 states was 5000. Out of thistotal 5000 households, 4000 are the SCs/STs& Non-SC/ST beneficiaries. The remaining 1000 were to SC/ST & Non-SC/ST non-beneficiary households.

In fact, the total of 4800 sample household were collected through field survey as against the requisite 5000 samples, due to negligible control samples in the states of Gujarat and Karnataka. Out of the total 4800 sample households, 4000 were SC/ST & Non-SC/ST beneficiary households and the remaining 800 were to SC/ST & Non-SC/ST non-beneficiary households.

The number of beneficiary and non-beneficiary sample households selected for field survey form 10 states as per their category is shown below in Table 2.2.

Table 2.2: Beneficiary & non-beneficiary sample households selected from 10 states of India

Sl. No.	Category	Beneficiary Household	Non-beneficiary Household
1.	SC	1492 (29.84%)	200 (4%)
2.	ST	1508 (30.16%)	200 (4%)
3.	Non-SC/ST	1000 (20%)	400 (8%)
Total		4000 (80%)	800 (16%)

In Jharkhand and Chhattisgarh state, two Milk Federations were selected for the field survey, while in the remaining eight states, 23 milk unions in total were selected for the field survey. Moreover, for the field survey in Jharkhand and Chhattisgarh, a total of 9 districts were covered for field survey while in remaining eight states; a total of 29 districts were covered.

The criteria for selection of beneficiary sample households w.r.t. SC/ST & Non-SC/ST category were: a) household must be a registered member of DCS/BMC as milk pourer & b) household must get benefits of NDP-I programme services.

Similarly, the criteria for selection of non-beneficiary household samples w.r.t. SC/ST & Non-SC/ST category was different as applied in the case of selection of beneficiary household samples. The criteria for selection of non-beneficiary household samples were a) household (owning milch animal) not must be a registered member of DCS/BMC and b) household must not get benefit of NDP-I programme services.

Based on the above mentioned criteria for selection of beneficiary and non-beneficiary household samples, the state-wise details of selected EIAs/Milk Federation, districts and category-wise number of beneficiary and non-beneficiary household samples surveyed from 10 states of India are shown in Table 2.3.

Table 2.3: Details of EIAs/Milk federation, districts and category-wise number of beneficiary and non-beneficiary household samples surveyed in 10 states of India

Sl. No	Name of the State	Selected EIA /Milk Federation	Selected District	No. of SC HHs		No. of ST HHs		Non-SC/ST HHs		Total HHs	
				B	NB	B	NB	B	NB	TB	TNB
1	Jharkhand	Jharkhand Federation	Ranchi	3	0	40	10	30	11	73	21
			Lohardagga	8	0	40	7	30	18	78	25
			Latehar	33	4	49	2	30	16	112	22
			Chatra (16)	85	19	16	6	0	0	101	25
			Hazaribagh	21	2	5	0	10	5	36	7
Sub Total (Jharkhand)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
2	Chhattisgarh	Chhattisgarh Federation	Raigarh	61	8	41	9	16	16	118	33
			Dhamtari	4	0	0	1	18	3	22	4
			Raipur	35	7	2	2	20	0	57	9
			Mahasamund	50	10	107	13	46	31	203	54
Sub Total (Chhattisgarh)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
3	Odisha	GGG	Ganjam	50	9	38	9	30	17	118	35
		Puri	Puri	65	8	5	8	35	16	105	32
		Samleshwari	Sambalpur	18	0	49	0	0	0	67	0
			Bargarh	17	8	58	8	35	17	110	33
Sub Total (Odisha)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
4	West Bengal	Kangsabati	Bankura	49	2	48	4	32	16	129	22
		Bhagirathi	Murshidabad	51	11	53	10	36	19	140	40
		Kishan	Nadia	50	12	49	11	32	15	131	38
Sub Total (West Bengal)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
5	Madhya Pradesh	Ujjain	Ujjain	67	8	6	8	31	16	104	32
		Bhopal	Bhopal	27	8	81	8	35	17	143	33
		Indore	Indore	56	9	63	9	34	17	153	35
Sub Total (Madhya Pradesh)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
6	Gujarat	Vadodara	Vadodara	47	0	53	0	60	0	160	00
		Sabar	SabarKantha	44	0	46	0	0	0	90	00
		Banas	BanasKantha	51	0	59	0	40	0	150	00
Sub Total (Gujarat)				**142**	**0**	**158**	**0**	**100**	**0**	**400**	**00**
7	Rajasthan	Alwar	Alwar	50	9	50	8	33	17	133	34
		Udaipur	Udaipur	50	8	50	8	34	17	134	33
		Jaipur	Jaipur	50	8	50	9	33	16	133	33
Sub Total (Rajasthan)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
8	Maharashtra	Pune	Pune	50	8	49	7	33	16	132	31
		Jalgaon	Jalgaon	50	8	51	9	33	17	134	34
		Kolhapur	Kolhapur	50	9	50	9	34	17	134	35
Sub Total (Maharashtra)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
9	Telangana	Mulukanoor	Karimnagar	11	0	8	0	12	0	31	0
		Mulukanoor	Siddipeth	17	1	34	14	0	17	51	32
		Mulukanoor	Warangal	51	15	29	0	38	6	118	21
		NRR	Yadadri	17	2	19	0	9	4	45	6
		NRR	Rangareddy	12	3	19	0	19	0	50	3
		NRR	Bhongir	8	0	5	0	5	17	18	17
		NRR	Nalgonda	34	4	36	11	17	6	87	21
Sub Total (Telangana)				**150**	**25**	**150**	**25**	**100**	**50**	**400**	**100**
10	Karnataka	RBK	Bellary	50	0	50	0	34	0	134	00
		D. Kanadda	D. Kanadda	50	0	49	0	33	0	132	00
		Mysore	Mysore	50	0	51	0	33	0	134	00
Sub Total (Karnataka)				**150**	**0**	**150**	**0**	**100**	**0**	**400**	**00**
Grand Total (All 10 States)				**1492**	**200**	**1508**	**200**	**1000**	**400**	**4000**	**800**

Source: Field Survey

Chapter III

Socio-economic Profile of Respondent Households

3.1 Demographic and Social Profile of the Sample Respondents

The total respondent households were classified into 4 categories for the purpose of comparison and analyses, i.e. SC/ ST beneficiaries, non-SC/ ST beneficiaries, SC/ ST non-beneficiaries and non-SC/ ST non-beneficiaries as indicated in Table 3.1. However, comparative analyses were attempted between SC/ ST beneficiaries and non-SC/ ST beneficiaries to study the impact of the project on SC/ ST households as well as between SC/ ST beneficiaries and SC/ ST non-beneficiaries to study the inclusion and equity of SC/ ST households vis-à-vis non-SC/ ST households.

Table 3.1: **Demographic and social profile of the sample respondents**

Sl. No.	Parameters	Code	Category of respondents					
			SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
1	Number of members in a family	Mean	5.44	5.45	-0.419	4.98	5.05	4.027
		SD	2.40	2.39		2.40	3.00	
2	Average number of children in a family	Mean	**0.78**	**0.73**	-6.334	0.61	0.68	-4.375
		SD	1.28	1.23		0.96	1.09	
3	Education level of the family members (0-4)	0	2246 (26.8)	258 (10.1)	-	252 (25.1)	109 (11.8)	-
		1	3137 (37.5)	960 (37.5)	-	406 (40.5)	392 (42.6)	-
		2	2298 (27.4)	998 (38.9)	-	279 (27.8)	324 (35.2)	-
		3	538 (6.4)	239 (9.3)	-	59 (5.9)	66 (7.2)	-
		4	156 (1.9)	108 (4.2)	-	7 (0.7)	30 (3.3)	-
4	Education level of the highest educated women in a family members (0-4)	0	3209 (40.8)	748 (30.6)	-	370 (41.8)	219 (29.3)	-
		1	2745 (34.9)	980 (37.6)	-	320 (36.2)	255 (34.1)	-
		2	1534 (19.5)	655 (25.1)	-	169 (19.1)	239 (32.0)	-
		3	311 (4.0)	135 (5.2)	-	22 (2.5)	28 (3.7)	-
		4	64 (0.8)	41 (1.6)	-	4 (0.5)	7 (0.9)	-
5	Member of cooperative society/ MPI	-	3000	1000	-	0	0	-

Note: Figures within parentheses are in percentage
Code: 0- Illiterate, 1- Primary education, 2- Secondary education, 3- Graduate, 4- Post-graduate and above

3.1.1 Average Number of Members in a Family

The above Table 3.1 shows that the average household size of SC/ ST beneficiaries is greater than 5 while that of SC/ ST non-beneficiaries is less than 5. The household size of SC/ ST beneficiaries is almost the same as that of non-SC/ ST beneficiaries. Similarly, the household size of SC/ ST non-beneficiaries is slightly lesser than that of non-SC/ ST non-beneficiaries.

To identify the level of significance in average household size between SC /ST beneficiary households and non-SC/ ST beneficiary households and between SC /ST beneficiary

households and SC/ ST non-beneficiary households Z value were assessed. The details are shown below:-

To identify the level of significance in average household size of SC /ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \delta_x \geq \delta_y'$) and alternate hypothesis ($H_1 : \delta_X < \delta_y'$). In Table 3.1 the calculated Z (= -0.419) is greater than tabulated Z value (-1.645) at 5% level of significance and therefore the null hypothesis is rejected. This implies that average number of family members of SC/ST beneficiaries is not significantly different from the average number of family members of non-SC/ST beneficiaries.

To identify the level of significance in average household size of SC /ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \delta_x \geq \delta_y$) and alternate hypothesis ($H_1 : \delta_X < \delta_y$). In Table 3.1 the calculated Z (= 4.027) is greater than tabulated Z value (1.645) at 5% of level of significance and therefore the null hypothesis is rejected. This implies that average number of family members of SC/ST beneficiaries is not significantly different from the average number of family members of SC/ST non-beneficiaries.

(In the above mentioned paragraph δ_x = denotes average number of members in a family for SC/ST beneficiary households; δ_y' = denotes average number of members in a family for non-SC/ST beneficiary households, and δ_y = denotes average number of members in a family for SC/ST non-beneficiary households and).

3.1.2 Average Number of Children in a Family

The average number of children in SC/ ST beneficiary households is greater than that of average number of children in non-SC/ ST beneficiary households. Similarly, the average number of children in SC/ ST beneficiary households is also greater than that of average number of children in SC/ ST non-beneficiary households.

To identify the level of significance in average number of children in SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \omega_x \geq \omega_y$)) and alternate hypothesis ($H_1 : \omega_X < \omega_y$). In Table 3.1 the calculated Z (= -6.334) is less than tabulated Z value (-1.645) at 5% of level of significance and therefore the null hypothesis is accepted. This implies that average number of children of SC/ ST beneficiaries is significantly greater than average number of children of non-SC/ST beneficiaries.

To identify the level of significance in average number of children in SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \omega_x \geq \omega_y$) and alternate hypothesis ($H_1 : \omega_X < \omega_y$). In Table 3.1 the calculated Z (= -4.375) is less than tabulated Z value (1.645) at 5% of level of significance and therefore the null hypothesis is accepted. This implies that average number of children of SC/ST beneficiaries is significantly greater than average number of children of SC/ ST non-beneficiaries.

(In the above mentioned paragraph ω_x = denotes average number of children in a family for SC/ ST beneficiary households; ω_y' = denotes average number of children in a family for non-

SC/ ST beneficiary households and ω_y = denotes average number of children in a family for SC/ ST non-beneficiary households).

3.1.3 Education Level of Family Members

The percentage of illiterate person is highest (26.8) in SC/ ST beneficiary families followed by SC/ ST non-beneficiary families (25.1) and least in non-SC/ ST beneficiary families (10.1). The percentage of literate person is highest (40.5) in SC/ ST non-beneficiary familiesfollowed by non-SC/ ST beneficiary families (37.5) and same in SC/ ST beneficiary families (37.5).The percentage of post graduate and above level of education is highest (4.2) in non-SC /ST beneficiary families followed by SC/ ST beneficiary families (1.9) and least in SC/ ST non-beneficiary families (0.7) (Table 3.1).

3.1.4 Education Level of Women in a Family

The percentage of illiterate women is highest (41.8) in SC/ ST non-beneficiaryfamilies followed by SC/ ST beneficiary families (40.8) and least in non-SC/ ST beneficiary families (30.6). The percentage of literate women is highest (37.6) in non-SC/ ST beneficiary families followed by SC/ ST non-beneficiary families (36.2) and least in SC/ ST beneficiary families (34.9). The percentage of post graduate and above level of education in women is highest (1.6) in non-SC /ST beneficiary families followed by SC/ ST beneficiaries family (0.8) and least in SC/ ST non-beneficiary families (0.5) (Table 3.1).

3.1.5Member of Cooperative Society / MPI

All 3000 sample respondents who were selected as SC/ ST beneficiary households were the member of cooperative society. Similarly, 1000 sample respondents who were selected as non-SC/ ST beneficiary households were the member of cooperative society.

Besides, 400 SC/ ST non-beneficiary households sample respondents and same number of non-SC/ ST non-beneficiary household sample respondents were selected in the present but these sample respondents do not belong to the member of cooperative society.

3.2 Asset Holding by the Sample Respondents

3.2.1 Land Holding

Table 3.2: **Asset holding by the sample respondents**

Sl. No.	Parameters	Sub-Parameters	Code	Category of respondents					
				SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
1	Land holding (acres)	a. Land holding (acres)	Mean	1.812	2.745	-2.783	1.246	2.093	26.714
			SD	3.23	3.75		3.22	2.97	
		b. Irrigated land holding (acres)	Mean	1.464	2.295	-4.235	1.091	1.493	2.144
			SD	3.25	3.28		3.39	1.77	
		c. Un-irrigated agricultural land holding (acres)	Mean	1.229	1.655	-3.876	1.046	2.019	2.810
			SD	1.97	2.51		1.87	2.97	

Sl. No.	Parameters	Sub-Parameters	Code	SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
		d. Non-agricultural land holding (acres)	Mean	0.432	0.684	-1.202	0.463	0.433	0.117
			SD	1.00	1.51		1.39	1.09	
2	House (No.)	a. Total House (No.)	-	3000 (100)	1000 (100)	-	400 (100)	400 (100)	-
		b. Total Kutcha house (No.)	-	903 (30.0)	211 (21.1)	-	127 (31.8)	102 (25.5)	-
		c. Total Kutcha-pucca / mixed house (No.)	-	806 (26.9)	227 (22.7)	-	125 (31.3)	81 (20.3)	-
		d. Total Pucca house (No.)	-	1291 (43.0)	562 (56.2)	-	148 (37.0)	217 (54.3)	-
3	Other amenities (Beneficiary/ Non-beneficiary-wise)	a. Drinking water facility	0	0	0	-	0	0	-
			1	3000 (100.0)	1000 (100.0)	-	400 (100.0)	400 (100.0)	-
		b. Electricity	0	150 (05)	30 (03)	-	32 (08)	08 (02)	-
			1	2850 (95.0)	970 (97.0)	-	368 (92.0)	392 (98.0)	-
		c. Toilet	0	1004 (33.5)	274 (27.4)	-	160 (40)	125 (31.2)	-
			1	1996 (66.5)	726 (72.6)	-	240 (60.0)	275 (68.8)	-

Note: Code 0 denotes not availed and 1 denotes availed

Figures within parentheses are in percentage

3.2.1.1 Average Land Holding

Above Table 3.2 shows that the average land holding of SC/ ST beneficiaries is 1.8 acres whereas that of SC/ ST non-beneficiaries is about 1.3 acres and that of non-SC/ ST beneficiaries is 2.8 acres. This indicates that the SC/ ST populations are dependent on dairying activities more than the SC/ ST non-beneficiaries and non-SC/ ST beneficiaries. This is true in the sense that the SC/ ST households which have milch animals can only obtain the benefits of NDP I and the non-SC/ ST households who have a higher land holding would be involved much more in agricultural activities than dairying.

To identify the level of significance in average land holding (in acres) between SC/ ST beneficiary households and non-SC/ ST non-beneficiary households and between SC/ ST beneficiary households and SC/ ST non-beneficiary households Z value were assessed. The details are shown below:-

To identify the level of significance in the average land holding (in acres) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \mu_x \geq \mu_y$) and alternate hypothesis ($H_1 : \mu_x < \mu_y$). In Table 3.2 the calculated Z (= -2.783) is less than the tabulated Z value (= -1.645) at 5% level of significance i.e., the result is not significant; hence we fail to reject the hypothesis. This implies that **average land holding of SC/ST beneficiaries is significantly lesser than average land holding of non-SC/ST beneficiaries.**

To identify the level of significance in average land holding (in acres) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \mu_x \geq \mu_y$) and alternate hypothesis ($H_1 : \mu_X < \mu_y$). In Table 3.2 the calculated Z (= 26.714) is greater than tabulated Z value (1.645) at 5% of level of significance and therefore the null hypothesis is strongly rejected. This implies that average land holding of SC/ST beneficiaries is not significantly different from the average land holding of SC/ST non-beneficiaries family.

(In the above mentioned paragraph μ_x = denotes average land holdingfor SC/ST beneficiary households; $\mu_y^{'}$ = denotes average land holdingfor non-SC/ST beneficiary households and μ_y = denotes average land holdingfor SC/ST non-beneficiary households).

3.2.1.2 Average Irrigated Land Holding

To identify the level of significance in the average irrigated land holding (in acres) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \pi_x \geq \pi_y^{'}$) and alternate hypothesis ($H_1 : \pi_x < \pi_y^{'}$).In Table 3.2 the calculated Z (= -4.235) is less than tabulated Z value (= -1.645) at 5% of level of significance i.e., the result is not significant. **This implies that that average land holding of irrigated land of SC/ST beneficiaries is significantly lesser than average land holding of irrigated land of non-SC/ST beneficiaries.**

To identify the level of significance in the average irrigated land holding (in acres) of SC /ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \pi_x \geq \pi_y$) and alternate hypothesis ($H_1 : \pi_x < \pi_y$). In Table 3.2 the calculated Z (= 2.144) is greater than tabulated Z value (= -1.645) at 5% level of significance i.e., the result is significant i.e., hypothesis is rejected. This implies that that average land holding of irrigated land of SC/ST beneficiaries is not significantly different from the average land holding of irrigated land of non-SC/ST beneficiaries.

(In the above mentioned paragraph π_x = denotes average irrigated land holdingfor SC/ST beneficiary households; $\pi_y^{'}$ = denotes average irrigated land holdingfor non-SC/ST beneficiary households and π_y = denotes average irrigated land holdingfor SC/ST non-beneficiary households).

3.2.1.3 Average Un-irrigated Land Holding

To identify the level of significance in the average un-irrigated land holding (in acres) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($(H_\circ : \omega_x \geq \omega_y)$) and alternate hypothesis ($H_1 : \omega_X < \omega_y$). In Table 3.2 the calculated Z (= -3.876) is less than tabulated Z value (= -1.645) at 5% of level of significance i.e., the result is not significant. **This implies that average land holding of un-irrigated land of SC/ST beneficiaries is significantly lesser than average land holding of un-irrigated land of non-SC/ST beneficiaries.**

To identify the level of significance in the average un-irrigated land holding (in acres) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($(H_\circ : \omega_x \geq \omega_y)$) and alternate hypothesis ($H_1 : \omega_X < \omega_y$). In Table 3.2 the

calculated Z (= 2.810) is greater than tabulated Z value (= 1.645) at 5% level of significance i.e., the result is significant. This implies that the average land holding of un-irrigated land of SC/ST beneficiaries is not significantly different from the the average land holding of un-irrigated land of non-SC/ST beneficiaries.

(In the above mentioned paragraph ω_x = denotes the average un-irrigated land holdingfor SC/ST beneficiary households; ω_y = denotes the average un-irrigated land holdingfor non-SC/ST beneficiary households and ω_y = denotes the average un-irrigated land holdingfor SC/ST non-beneficiary households).

3.2.1.4 Average Non-Agricultural Land Holding

To identify the level of significance in the average non-agricultural land holding (in acres) of SC /ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $((H_\circ : \upsilon_x \geq \upsilon_y'))$ and alternate hypothesis $(H_1 : \upsilon_X < \upsilon_y')$. In Table 3.2 the calculated Z (= -1.202) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that the average land holding of non-agricultural land of SC/ST beneficiaries is not significantly different from the the average land holding of non-agricultural land of non-SC/ST beneficiaries.

To identify the level of significance in the average non-agricultural land holding (in acres) of SC /ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $((H_\circ : \upsilon_x \geq \upsilon_y))$ and alternate hypothesis $(H_1 : \upsilon_X < \upsilon_y)$. In Table 3.2 the calculated Z (= 0.117) is greater than tabulated Z value (-1.645) at 5% of level of significance i.e., the result is significant. This implies that the average land holding of non-agricultural land of SC/ST beneficiaries is not significantly different form the average land holding of non-agricultural land of non-SC/ST beneficiaries.

(In the above mentioned paragraph υ_x = denotes the average non-agricultural land holding for SC/ST beneficiary households; υ_y' = denotes the non-agricultural land holding for non-SC/ST beneficiary households and υ_y = denotes the average non-agricultural land holding for SC/ST non-beneficiary households).

3.2.2. Housing Condition

The percentage of kutcha house is highest (31.8) in SC/ ST non-beneficiary families followed by SC/ ST beneficiary families (30.0) and least in non-SC/ ST beneficiary families (21.1). The percentage of Kutcha-pucca / mixed house is highest (31.3) in SC/ ST non-beneficiary families followed by SC/ ST beneficiary families (26.9) and least in non-SC/ ST beneficiary families (22.7). The percentage of pucca house is highest (56.2) in non-SC /ST beneficiary families followed by SC/ ST beneficiary families (43.0) and least in SC/ ST non-beneficiary families (37.0) (Table 3.2).

3.2.3 Other Amenities

Study findings reveal that 100% drinking water facility is available for all categories of beneficiary (SC/ ST and non-SC/ ST) and non-beneficiary (SC/ ST and non-SC/ ST) households (Table 3.2). The percentage of electrical connection is highest (97.0) in non-SC/ ST beneficiaries family followed by SC/ ST beneficiary families (95.0) and least in SC/ ST non-beneficiary families (92.0). The percentage of toilet facility is highest (72.6) in non-SC/

ST beneficiary families followed by SC/ ST beneficiary families (66.5) and least in SC/ ST non-beneficiary families (60.0) (Table 3.2).

3.3 Economic Profile of the Sample Respondents

Table 3.3: Economic profile of the sample respondents

Sl. No.	Parameters	Sector	Category of respondents					
			SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
1	Household employment (man days/ year)	a. Agriculture	969 (1180.39)	1901 (577.5)	-1.330	1234 (2373.9)	1143 (796.9)	0.054
		b. Dairying	481 (344.0)	560 (385.44)	-2.676	353 (424.4)	421 (362.9)	4.855
		c. Business	.235 (2.37)	.537 (2.50)	-0.484	000 (0.00)	000 (0.00)	1.834
		d. Labour	700 (7.29)	576 (531.1)	-0.723	647 (614.8)	496 (416.1)	1.004
		e. Service	44 (139.1)	38 (111.6)	0.694	64 (61.92)	52 (49.9)	5.275
		f. Others (livestock & movable)	25 (77.8)	50 (160.4)	-0.652	528 (841.7)	123 (119.2)	-1.611
2	Household income (in Rs./ year)	a. Agriculture	78,992 (1099.5)	1,56,045 (232540.8)	-2.371	1,57,435 (25325.6)	1,17,685 (206567.4)	-0.797
		b. Dairying	55,609 (70703.1)	98,534 (58196.2)	0.929	33,863 (3805.9)	64,394 (1582.7)	-0.510
		c. Business	2,975 (8155.7)	17,012 (15555.4)	-0.786	000 (0.00)	000 (0.00)	2.371
		d. Labour	62,957 (10398.7)	53,614 (52095.7)	1.545	55,535 (5495.9)	46,230 (37952.7)	0.603
		e. Service	1,79,104 (556691.2)	1,52,727 (446795.6)	1.981	64,800 (646.9)	52,000 (4111.9)	1.275
		f. Others (livestock & movable)	2,762 (8515.1)	5,504 (17552.8)	0.683	6,175 (0.901)	21,714 (1.651)	5.013

Note: Figures within parentheses denote Standard Deviation

3.3.1 Household's Employment

Above Table 3.3 shows that the SC/ ST households are more involved in dairying and service related activities and less in agriculture and other activities as compared to the SC/ ST non-beneficiaries. This may be due to more milch animals with the SC/ ST beneficiary households.

3.3.1.1 Household's Employment in Agriculture

To identify the level of significance in households' employment in agriculture (man days/year) between SC/ ST beneficiary households and non-SC/ ST beneficiary households and between SC/ ST beneficiary households and SC/ ST non-beneficiary households Z value were assessed. The details are shown below:-

To identify the level of significance in the households employment in agriculture sector (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \delta_x \geq \delta_y^{'}$) and alternate hypothesis ($H_1 : \delta_x < \delta_y^{'}$). In Table 3.3 the calculated Z (= -1.330) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that the households' employment (man days/year) of SC/ST beneficiaries in agriculture sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' employment in agriculture sector (man days/year) of SC /ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \delta_x \geq \delta_y$) and alternate hypothesis ($H_1 : \delta_x < \delta_y$). In Table 3.3 the calculated Z (= 0.054) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that household's employment (man days/year) of SC/ST beneficiaries in agriculture sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph δ_x = denotes households' employment in agriculture for SC/ST beneficiary households; $\delta_y^{'}$ = denotes households' employment in agriculture for non-SC/ST beneficiary households and δ_y = denotes household's employment in agriculture for SC/ST non-beneficiary households).

3.3.1.2 Household Employment in Dairying

To identify the level of significance in the households' employment in dairying sector (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \mu_x \geq \mu_y^{'}$) and alternate hypothesis ($H_1 : \mu_x < \mu_y^{'}$). In Table 3.3 the calculated Z (= -2.676) is less than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is not significant. This implies that the household's employment (man days/year) of SC/ST beneficiaries in dairy sector is significantly lesser than the Non-SC/ST beneficiaries.

To identify the level of significance in the households' employment in dairying sector (man days/year) of SC /ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \mu_x \geq \mu_y$) and alternate hypothesis ($H_1 : \mu_x < \mu_y$).In Table 3.3 the calculated Z (= 4.855) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that the household's employment (man days/year) of SC/ST beneficiaries in dairy sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph μ_x = denotes household's employment in dairying for SC/ST beneficiary households; $\mu_y^{'}$ = denotes household's employment in dairying for non-

SC/ST beneficiary households and μ_y = denotes household's employment in dairying for SC/ST non-beneficiary households).

3.3.1.3 Household Employment in Business

To identify the level of significance in the households' employment in business (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : \pi_x \geq \pi_y^{'})$ and alternate hypothesis $(H_1 : \pi_x < \pi_y^{'})$. In Table 3.3 the calculated Z (= -0.484) is greater than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is significant. This implies that the household's employment (man days/year) of SC/ST beneficiaries in business sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' employment in business (man days/year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H \circ : \pi_x \geq \pi_y)$ and alternate hypothesis $(H_1 : \pi_x < \pi_y)$. In Table 3.3 the calculated Z (= 1.834) is greater than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is significant i.e., hypothesis is rejected. This implies that the household's employment (man days/year) of SC/ST beneficiaries in business sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph π_x = denotes households' employment in business for SC/ST beneficiary households; $\pi_y^{'}$ = denotes household's employment in business for non-SC/ST beneficiary households and π_y = denotes household's employment in business for SC/ST non-beneficiary households).

3.3.1.4 Household's Employment as Daily-Wage Labour

To identify the level of significance in the households' employment as daily-wage labour (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $((H_\circ : \omega_x \geq \omega_y))$ and alternate hypothesis $(H_1 : \omega_x < \omega_y)$. In Table 3.3 the calculated Z (= -0.723) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that household's employment (man days/year) of SC/ST beneficiaries as daily-wage labour is not significantly differentfrom the Non-SC/ST beneficiaries.

To identify the level of significance in households' employment as daily-wage labour (man days/year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $((H_\circ : \omega_x \geq \omega_y))$ and alternate hypothesis $(H_1 : \omega_X < \omega_y)$. In Table 3.3 the calculated Z (= 1.004) is greater than tabulated Z value (-1.645) at 5% of level of significance i.e., result is significant i.e., hypothesis is rejected. This implies that the household's employment (man days/year) of SC/ST beneficiaries as daily-wage labour is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph ω_x = denotes households' employment as daily-wage labour for SC/ST beneficiary households; $\omega_y^{'}$ = denotes household's employment as daily-wage labour for non-SC/ST beneficiary households and ω_y = denotes household's employment as daily-wage labour for SC/ST non-beneficiary households).

3.3.1.5 Household's Employment in Service Sector

To identify the level of significance in the households' employment in service sector (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($(H_\circ : \upsilon_x \geq \upsilon_y')$) and alternate hypothesis ($H_1 : \upsilon_X < \upsilon_y'$). In Table 3.3 the calculated Z (= 0.694) is greater than the tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that the household's employment (man days/year) of SC/ST beneficiaries in service sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in households' employment in service sector (man days/year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \upsilon_x \geq \upsilon_y$) and alternate hypothesis ($H_1 : \upsilon_x < \upsilon_y$). In Table 3.3 the calculated Z (= 5.275) is greater than tabulated Z value (1.645) at 5% level of significance i.e., result is significant. This implies that household's employment (man days/year) of SC/ST beneficiaries in service sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph υ_x = denotes household's employment in service sector for SC/ST beneficiary households; υ_y' = denotes household's employment in service sector for non-SC/ST beneficiary households and υ_y = denotes household's employment in service sector for SC/ST non-beneficiary households).

3.3.1.6 Household's Employment in Other Services

To identify the level of significance in the households' employment in other services (man days/year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H_\circ : \alpha_x \geq \alpha_y')$ and alternate hypothesis ($H_1 : \alpha_X < \alpha_y'$). In Table 3.3 the calculated Z (= -0.652) is greater than the tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that the household's employment (man days/year) of SC/ST beneficiaries in other service (livestock and movable assets) sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' employment in other services (man days/year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, Let us take the null hypothesis $(H_\circ : \alpha_x \geq \alpha_y)$ and alternate hypothesis ($H_1 : \alpha_X < \alpha_y$). In Table 3.3 the calculated Z (= -1.611) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that household's employment (man days/year) of SC/ST beneficiaries in other service (livestock and movable assets) sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph α_x = denotes the households' employment in other service for SC/ST beneficiary households; α_y' = denotes household's employment in other service for non-SC/ST beneficiary households and α_y = denotes household's employment in other service for SC/ST non-beneficiary households).

3.3.2 Household's Income

To identify the level of significance in the households' income (in Rs./year from various sectors i.e., agriculture, dairying, business, daily-wage labour, service and other sectors)

between SC /ST beneficiary households and non-SC/ ST beneficiary households and between SC /ST beneficiary households and SC/ ST non-beneficiary households Z value were assessed. The details are shown below:-

3.3.2.1 Household's Income from Agriculture Sector

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_{\circ} : \delta_x \geq \delta_y^{'}$) and alternate hypothesis ($H_1 : \delta_X < \delta_y^{'}$). In Table 3.3 the calculated Z (= -2.371) is less than tabulated Z value (-1.645) at 5% level of significance i.e., the result is not significant. **This implies that the household's income (in Rs./ year) of SC/ST beneficiaries from agriculture sector is significantly lesser than the SC/ST non-beneficiaries.** This was because the SC/ ST beneficiaries were more engaged in dairying and less in agricultural activities as compared to the SC/ ST non-beneficiaries.

To identify the level of significance in the the households' income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary the households, let us take the null hypothesis ($H_{\circ} : \delta_x \geq \delta_y$) and alternate hypothesis ($H_1 : \delta_X < \delta_y$). In Table 3.3 the calculated Z (= -0.797) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that the household's income (in Rs./ year) of SC/ST beneficiaries from agriculture sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph δ_x = denotes household's income from agriculture sector for SC/ST beneficiary households; $\delta_y^{'}$ = denotes household's income from agriculture sector for non-SC/ST beneficiary households and δ_y = denotes household's income from agriculture sector for SC/ST non-beneficiary households).

3.3.2.2 Household's Income from Dairy Sector

To identify the level of significance in the households' income (in Rs./year) of SC /ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_{\circ} : \mu_x \geq \mu_y$) and alternate hypothesis ($H_1 : \mu_x < \mu_y$). In Table 3.3 the calculated Z (= 0.929) is greater than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is significant. **This implies that the households' income (in Rs./ year) of SC/ST beneficiaries from dairy sector is not significantly different from the Non-SC/ST beneficiaries.**

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_{\circ} : \mu_x \geq \mu_y$) and alternate hypothesis ($H_1 : \mu_X < \mu_y$). In Table 3.3 the calculated Z (= -0.510) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., the result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries from dairy sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph μ_x = denotes household's income from dairy sector for SC/ST beneficiary households; $\mu_y^{'}$ = denotes the households' income from dairy sector for

non-SC/ST beneficiary households and μ_y = denotes the household's income from dairy sector for SC/ST non-beneficiary households).

3.3.2.3 Household's Income from Business Sector

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H\circ : \pi_x \geq \pi_y)$ and alternate hypothesis $(H_1 : \pi_x < \pi_y)$. In Table 3.3 the calculated Z (= -0.786) is greater than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries from business sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H\circ : \pi_x \geq \pi_y)$ and alternate hypothesis $(H_1 : \pi_x < \pi_y)$. In Table 3.3 the calculated Z (= 2.371) is greater than tabulated Z value (= -1.645) at 5% of level of significance i.e., result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries from business sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph π_x = denotes the households' income from business sector for SC/ST beneficiary households; π_y = denotes the households' income from business sector for non-SC/ST beneficiary households and π_y = denotes the households' income from business sector for SC/ST non-beneficiary households).

3.3.2.4 Household's Income as Daily Wage Labour

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $((H\circ : \omega_x \geq \omega_y))$ and alternate hypothesis $(H_1 : \omega_X < \omega_y)$. In Table 3.3 the calculated Z (= 1.545) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries as daily-wage labour is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $((H\circ : \omega_x \geq \omega_y))$ and alternate hypothesis $(H_1 : \omega_X < \omega_y)$. In Table 3.3 the calculated Z (= 0.603) is greater than tabulated Z value (-1.645) at 5% of level of significance i.e., result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries as daily-wage labour is not significantly differentfrom the Non-SC/ST beneficiaries.

(In the above mentioned paragraph ω_x = denotes the households' income as daily wage labour for SC/ST beneficiary households; ω_y = denotes the households' income as daily wage labour for non-SC/ST beneficiary households and ω_y = denotes the households' income as daily wage labour for SC/ST non-beneficiary households).

3.3.2.5 Household's Income from Service Sector

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($(H_\circ : \upsilon_x \geq \upsilon_y^{'})$) and alternate hypothesis ($H_1 : \upsilon_X < \upsilon_y^{'}$). In Table 3.3 the calculated Z (= 1.981) is greater than the tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that the households' income (in Rs./ year) of SC/ST beneficiaries from service sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in the households' income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \upsilon_x \geq \upsilon_y$) and alternate hypothesis ($H_1 : \upsilon_X < \upsilon_y$). In Table 3.3 the calculated Z (= 1.275) is greater than the tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that household's income (in Rs./ year) of SC/ST beneficiaries from service sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph υ_x = denotes household's income from service sector for SC/ST beneficiary households; $\upsilon_y^{'}$ = denotes household's income from service sector for non-SC/ST beneficiary households and υ_y = denotes household's income from service sector for SC/ST non-beneficiary households).

3.3.2.6 Household's Income from Other Services

To identify the level of significance in households income (in Rs./year) of SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis ($H_\circ : \alpha_x \geq \alpha_y$) and alternate hypothesis ($H_1 : \alpha_X < \alpha_y$). In Table 3.3 the calculated Z (= 0.683) is greater than the tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that household's income (in Rs./ year) of SC/ST beneficiaries from other services (livestock and movable assets) sector is not significantly different from the Non-SC/ST beneficiaries.

To identify the level of significance in households income (in Rs./year) of SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis ($H_\circ : \alpha_x \geq \alpha_y$) and alternate hypothesis ($H_1 : \alpha_X < \alpha_y$). In Table 3.3 the calculated Z (= 5.013) is greater than tabulated Z value (-1.645) at 5% level of significance i.e., result is significant. This implies that household's income (in Rs./ year) of SC/ST beneficiaries from other services (livestock and movable assets) sector is not significantly different from the SC/ST non-beneficiaries.

(In the above mentioned paragraph α_x = denotes household's income from other services for SC/ST beneficiary households; $\alpha_y^{'}$ = denotes household's income from other services for non-SC/ST beneficiary households and α_y = denotes household's income from other services for SC/ST non-beneficiary households).

Chapter IV

Access to Project Interventions, Social Institutions and Challenges Faced and Project Benefits and Services Availed by Households

4.1 Services Availed under NDP I Interventions

Table 4.1: Services availed under NDP I interventions

Sl. No.	Parameters	Code	Category of respondents availed service (%)					
			SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
1	Access to Bulk Milk Coolers (BMC)	0	874 (29.1)	257 (25.7)	-0.393	209	178	7.966
		1	2126 (70.9)	743 (74.3)		191	222	
		M	0.71	0.74		0.51	0.57	
		SD	0.45	0.44		0.50	0.49	
2	Access to Automated Milk Collection Units (AMCUs)	0	569 (19.0)	129 (12.9)	-4.741	209 (52.3)	182 (45.5)	0.646
		1	2431 (81.0)	871 (87.1)		191 (47.7)	218 (54.5)	
		M	0.81	0.87		0.51	0.56	
		SD	0.39	0.33		0.50	0.49	
3	Access to Data Processor and Milk Collection Units (DPMCU)	0	1342 (44.7)	423 (42.3)	-1.149	208	181	2.738
		1	1658 (55.3)	577 (57.7)		192	219	
		M	0.55	0.57		0.51	0.57	
		SD	0.49	0.49		0.50	0.49	
4	Access to Milk Cans, Weighing and Testing Equipment	0	177 (5.9)	28 (2.8)	-4.582	205 (51.3)	174 (43.5)	17.860
		1	2823 (94.1)	972 (97.2)		195 (48.7)	226 (56.5)	
		M	0.94	0.97		0.52	0.58	
		SD	0.24	0.16		0.49	0.49	
5	RBP advisory service	0	763 (25.4)	228 (22.8)	-1.701	206 (51.5)	179 (44.7)	18.932
		1	2237 (74.6)	772 (77.2)		194 (48.5)	221 (55.3)	
		M	0.75	0.77		0.31	0.46	
		SD	0.44	042		0.46	0.49	
6	Certified and truthfully labeled fodder seeds	0	1226 (40.9)	359 (35.9)	-2.816	283 (70.7)	217 (54.3)	12.207
		1	1774 (59.1)	641 (64.1)		117 (29.3)	183 (45.7)	
		M	0.59	0.64		0.30	0.48	
		SD	0.49	0.48		0.46	0.50	
7	Silage/ Mower demonstration programmes	0	1832 (61.1)	589 (58.9)	-1.208	283 (70.7)	219 (54.8)	3.960
		1	1168 (38.9)	411 (41.1)		117 (29.3)	181 (45.7)	
		M	0.39	0.41		0.30	0.47	
		SD	0.48	0.49		0.46	0.50	
8	Artificial insemination service of Pilot model of AI delivery under NDP I	0	451 (15.0)	126 (12.6)	-1.968	205 (51.7)	177 (44.3)	14.004
		1	2549 (85.0)	874 (87.4)		195 (48.8)	223 (55.8)	
		M	0.85	0.87		0.52	0.58	
		SD	0.36	0.33		0.49	0.49	
9	Training & capacity building programmes for FDP- Certified and truthfully labeled fodder seeds	0	1164 (38.8)	349 (34.9)	-2.227	300 (75.0)	217 (54.3)	15.448
		1	1836 (61.2)	651 (65.1)		100 (25.0)	183 (45.7)	
		M	0.61	0.65		0.25	0.47	
		SD	0.49	0.48		0.43	0.49	

Sl. No.	Parameters	Code	Category of respondents availed service (%)					
			SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	Z value (a-b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)	Z value (a-c)
10	Training & capacity building programmes for FDP*- cattle feeding	0	0	0	-	219 (54.8)	186 (46.5)	-
		1	3000 (100.0)	1000 (100.0)		181 (45.2)	214 (53.5)	
		M	1.00	1.00		0.47	0.55	
		SD	0.00	0.00		0.49	0.49	
11	Training &capacity building programmes for breeding and calving interval	0	0	0	-	218 (54.5)	184 (46.0)	-
		1	3000 (100.0)	1000 (100.0)		182 (45.5)	216 (54.0)	
		M	0.99	0.99		0.47	0.56	
		SD	0.94	0.09		0.49	0.49	
12	Training & capacity building programmes for using milking utensils/assistances	0	177 (5.9)	28 (2.8)	-4.582	205 (51.7)	176 (44.0)	17.860
		1	2823 (94.1)	972 (97.2)		195 (48.3)	224 (56.0)	
		M	0.94	0.97		0.52	0.58	
		SD	0.23	0.16		0.49	0.49	

Note: Figures within parentheses denote Standard Deviation
M = Mean, SD = Standard Deviation

Above Table 4.1 shows that the SC/ ST beneficiaries were the primary recipients of Bulk Milk Coolers (BMC); Automated Milk Collection Units (AMCUs); Data Processor and Milk Collection Units (DPMCU); access to milk cans, weighing and testing equipment; Ration Balancing Programme (RBP) advisory services under NDP I. They were also primary recipients of certified and truthfully labelled fodder seeds; silage/ mower demonstrations programmes; Artificial Insemination (AI) services and various training and capacity building programmes provided under the project. Hence, the project had a greater impact on these vulnerable and marginalized communities. Also, since they were included appropriately at all levels, the benefits from the project were derived properly by these communities. In pursuance of the World Bank guidelines on Indigenous people, the project activities have been rolled out in tribal areas so as to include some of the most primitive tribes, build their capacities and empower them so that their poverty could be eliminated and they can move along the path of sustainable development ensuring their dignity, human rights, economies and culture.

To identify the level of significance in various services availed under NDP I interventions (BMC; AMCU; DPMCU; milk cans, weighing and testing equipment; RBP advisory service; certified and truthfully labelled fodder seeds; silage/ mower demonstration programmes; artificial insemination service; training & capacity building programmes for FDP - certified and truthfully labelled fodder seeds; training & capacity building programmes for FDP - cattle feeding; training & capacity building programmes for breeding and calving interval; and training & capacity building programmes for using milking utensils and assistances) in between SC /ST beneficiary households and non-SC/ ST beneficiary households and between SC/ ST beneficiary households and SC/ ST non-beneficiary households, Z value were assessed. The details are shown below:-

4.1.1 The Services of Bulk Milk Coolers (BMC) Availed

To identify the level of significance in the services of bulk milk coolers (BMC) availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take

the null hypothesis $(H \circ : X_1 \geq X_2)$ and alternate hypothesis $(H_1 : X_1 < X_2)$. In the Table 4.1 the calculated Z (= -0.393) is greater than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is significant, hence the percentage of SC/ ST Beneficiary is not significantly different than the non-SC/ ST Beneficiaries in terms of the services of bulk milk coolers availed.

To identify the level of significance in the services of bulk milk coolers (BMC) availed in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H \circ : X_1 \geq X_2)$ and alternate hypothesis $(H_1 : X_1 < X_2)$. In the Table 4.1 calculated Z (= 7.966) is greater than the tabulated Z (= -1.645) value at 5% level of significant i.e., result is significant; hence the percentage of SC/ ST Beneficiary is not significantly different than the SC/ ST non-beneficiaries in terms of the services of bulk milk coolers availed.

(In the above mentioned paragraph X_1 denotes services of bulk milk coolers availed for SC/ ST beneficiary households; X_2 denotes services of bulk milk coolers availed for non-SC/ST beneficiary households and X_2 denotes services of bulk milk coolers availed for SC/ ST non-beneficiary households).

4.1.2 The Services of Automated Milk Collection Units (AMCUs) Availed

To identify the level of significance in the services of automated milk collection units availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : D_1 \geq D_2)$ and alternate hypothesis $(H_1 : D_1 < D_2)$. In the Table 4.1 the calculated Z (= -4.741) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly lesser than the non-SC/ST Beneficiaries in terms of the services of automated milk collection units availed.

To identify the level of significance in the services of automated milk collection units availed in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H \circ : D_1 \geq D_2)$ and alternate hypothesis $(H_1 : D_1 < D_2)$. In the Table 4.1 calculated Z (= 0.646) is greater than the tabulated Z (= -1.645) value at 5% level of significant i.e., result is significant; hence the percentage of SC/ST Beneficiaries is not significantly different from the percentage of SC/ST Non-beneficiaries in terms of the services of automated milk collection units availed.

(In the above mentioned paragraph D_1 denotes services of automated milk collection units availed for SC/ST beneficiary households; D_2 denotes services of automated milk collection units availed for non-SC/ST beneficiary households and D_2 denotes services of automated milk collection units availed for SC/ST non-beneficiary households).

4.1.3 The Services of Data Processor and Milk Collection Units (DPMCU) Availed

To identify the level of significance in the services of data processor and milk collection units availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : Y_1 \geq Y_2)$ and alternate hypothesis $(H_1 : Y_1 < Y_2)$. In the Table 4.1 the calculated Z (= -1.149) is greater than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is significant, hence the SC/ ST Beneficiary is not significantly different from the non-SC/ ST Beneficiary in terms of the services of data processor and milk collection units availed.

To identify the level of significance in the services of data processor and milk collection units availed in between SC/ ST beneficiary households and SC/ ST non-beneficiary households; let us take the null hypothesis $(H_{\circ} : Y_1 \geq Y_2)$ and alternate hypothesis $(H_1 : Y_1 < Y_2)$. In the Table 4.1 calculated Z (= 2.738) is greater than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is significant, hence the SC/ ST Beneficiary is not significantly different from the SC/ ST non-beneficiaries in terms of the services of data processor and milk collection units availed.

(In the above mentioned paragraph Y_1 denotes services of data processor and milk collection units for SC/ ST beneficiary households; Y_2' denotes services of data processor and milk collection units for non-SC/ ST beneficiary households and Y_2 denotes services of data processor and milk collection units for SC/ ST non-beneficiary households).

4.1.4 The Services of Milk Cans, Weighing and Testing Equipment Availed

To identify the level of significance in the services of milk cans, weighing and testing equipment availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H_{\circ} : E_1 \geq E_2')$ and alternate hypothesis $(H_1 : E_1 < E_2')$. In the Table 4.1 the calculated Z (= -4.582) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly lesser than the non-SC/ST Beneficiary in terms of the services of milk cans, weighing and testing equipment availed.

To identify the level of significance in the services of milk cans, weighing and testing equipmentavailedin between SC/ ST beneficiary households and SC/ ST non-beneficiary households; let us take the null hypothesis $(H_{\circ} : E_1 \geq E_2)$ and alternate hypothesis $(H_1 : E_1 < E_2)$. In the Table 4.1 calculated Z (= 17.860) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. This implies that percentage of SC/ST Beneficiaries is significantly greater than the percentage of SC/ST Non-beneficiaries in terms of the services of milk cans, weighing and testing equipment availed.

(In the above mentioned paragraph E_1 denotes services of milk cans, weighing and testing equipment for SC/ST beneficiary households; E_2' denotes services of milk cans, weighing and testing equipment for non-SC/ST beneficiary households and E_2 denotes services of milk cans, weighing and testing equipment for SC/ST non-beneficiary households).

4.1.5 RBP Advisory Service Availed

To identify the level of significance in RBP advisory serviceavailedin between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H_{\circ} : C_1 \geq C_2')$ and alternate hypothesis $(H_1 : C_1 < C_2')$. In the Table 4.1 the calculated Z (= -1.701) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly lesser than the non-SC/ST Beneficiary in terms of RBP advisory service availed.

To identify the level of significance in RBP advisory serviceavailedin between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H_{\circ} : C_1 \geq C_2)$ and alternate hypothesis $(H_1 : C_1 < C_2)$. In the Table 4.1 calculated Z (= 18.932) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. This implies that percentage of SC/ST Beneficiaries is significantly greater

less than the percentage of SC/ST Non-beneficiaries in terms of RBP advisory service availed.

(In the above mentioned paragraph C_1 denotes RBP advisory service for SC/ST beneficiary households; C_2' denotes RBP advisory service for non-SC/ST beneficiary households and C_2 denotes RBP advisory service for SC/ST non-beneficiary households).

4.1.6 Certified and Truthfully Labeled Fodder Seeds Availed

To identify the level of significance in certified and truthfully labeled fodder seeds availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H\circ : A_1 \geq A_2')$ and alternate hypothesis $(H_1 : A_1 < A_2')$. In the Table 4.1 the calculated Z (= -2.816) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly lesser than the non-SC/ST Beneficiary in terms of certified and truthfully labeled fodder seeds availed.

To identify the level of significance in the certified and truthfully labelled fodder seeds availed in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H_\circ : A_1 \geq A_2)$ and alternate hypothesis $(H_1 : A_1 < A_2)$. In the Table 4.1 calculated Z (= 12.207) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. **This implies that percentage of SC/ST beneficiaries is significantly greater than the percentage of SC/ST non-beneficiaries in terms of the certified and truthfully labelled fodder seeds availed.**

(In the above mentioned paragraph A_1 denotes certified and truthfully labeled fodder seeds for SC/ST beneficiary households; A_2' denotes certified and truthfully labeled fodder seeds for non-SC/ST beneficiary households and A_2 denotes certified and truthfully labeled fodder seeds for SC/ST non-beneficiary households).

4.1.7 Silage/ Mower Demonstration Programmes Attended

To identify the level of significance in silage/ mower demonstration programmes attended in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H\circ : B_1 \geq B_2')$ and alternate hypothesis $(H_1 : B_1 < B_2')$. In the Table 4.1 the calculated Z (= -1.208) is greater than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is significant, hence the percentage of SC/ST Beneficiary is significantly less than the non-SC/ST Beneficiary in terms of silage/ mower demonstration programmes attended.

To identify the level of significance in silage/ mower demonstration programmes attended in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H\circ : B_1 \geq B_2)$ and alternate hypothesis $(H_1 : B_1 < B_2)$. In the Table 4.1 calculated Z (= 3.960) is greater than the tabulated Z (= -1.645) value at 5% level of significant i.e., the hypothesis is rejected. **This implies that percentage of SC/ST Beneficiary is significantly greater than the percentage of SC/ST Non-beneficiaries in terms of silage/ mower demonstration programmes attended.**

(In the above mentioned paragraph B_1 denotes silage/ mower demonstration programme for SC/ST beneficiary households; B_2' denotes silage/ mower demonstration programme for non-SC/ST beneficiary households and B_2 denotes silage/ mower demonstration programme for SC/ST non-beneficiary households).

4.1.8 Artificial Insemination Service Availed under NDP I

To identify the level of significance in artificial insemination service of pilot model of AI delivery availed in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : H_1 \geq H_2)$ and alternate hypothesis $(H_1 : H_1 < H_2)$. In the Table 4.1 the calculated Z (= -1.968) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant. This implies that percentage of SC/ST Beneficiary is significantly lesser than the non-SC/ST Beneficiary in terms of artificial insemination service of pilot model of AI delivery availed.

To identify the level of significance in artificial insemination service of pilot model of AI deliveryavailedin between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H_\circ : H_1 \geq H_2)$ and alternate hypothesis $(H_1 : H_1 < H_2)$. In the Table 4.1 calculated Z (= 14.004) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. **This implies that percentage of SC/ST Beneficiaries is significantly greater than the percentage of SC/ST Non-beneficiaries in terms of artificial insemination service of pilot model of AI delivery availed.**

(In the above mentioned paragraph H_1 denotes artificial insemination service of pilot model of AI delivery for SC/ST beneficiary households; H_2'denotes artificial insemination service of pilot model of AI delivery for non-SC/ST beneficiary households and H_2 denotes artificial insemination service of pilot model of AI delivery for SC/ST non-beneficiary households).

4.1.9 Training and Capacity Building Programmes Attended under NDP I for Certified and Truthfully Labeled Fodder Seeds

To identify the level of significance in training and capacity building programmes attended under NDP I for certified and truthfully labeled fodder seeds in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : F_1 \geq F_2)$ and alternate hypothesis $(H_1 : F_1 < F_2)$. In the Table 4.1 the calculated Z (= -2.227) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly greater than the non-SC/ST Beneficiary in terms of training and capacity building programmes attended under NDP I for certified and truthfully labeled fodder seeds.

To identify the level of significance in training and capacity building programmes attended under NDP I for certified and truthfully labeled fodder seeds in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H_\circ : F_1 \geq F_2)$ and alternate hypothesis $(H_1 : F_1 < F_2)$. In the Table 4.1 calculated Z (= 15.448) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. **This implies that percentage of SC/ST Beneficiaries is significantly greater than the percentage of SC/ST Non-beneficiaries in terms of training and capacity building programmes attended under NDP I for certified and truthfully labeled fodder seeds.**

(In the above mentioned paragraph F_1 denotes training and capacity building programmes attended for certified and truthfully labeled fodder seeds for SC/ST beneficiary households; F_2' denotes training and capacity building programmes attended for certified and truthfully labeled fodder seeds for non-SC/ST beneficiary households and F_2 denotes training and

capacity building programmes attended for certified and truthfully labeled fodder seeds for SC/ST non-beneficiary households).

4.1.10 Training and Capacity Building Programmes Attended under NDP I for Using Milking Utensils and Assistances

To identify the level of significance in training and capacity building programmes attended under NDP I for using milking utensils and assistances in between SC/ ST beneficiary households and non-SC/ ST beneficiary households, let us take the null hypothesis $(H \circ : G_1 \geq G_2^;)$ and alternate hypothesis $(H_1 : G_1 < G_2^;)$. In the Table 4.1 the calculated Z (= -4.582) is less than the tabulated Z (= -1.645) value at 5% level of significance i.e., result is not significant, hence the percentage of SC/ST Beneficiary is significantly lesses than the non-SC/ST Beneficiary in terms of training and capacity building programmes attended under NDP I for using milking utensils and assistances.

To identify the level of significance in training and capacity building programmes attended under NDP I for using milking utensils and assistances in between SC/ ST beneficiary households and SC/ ST non-beneficiary households, let us take the null hypothesis $(H_\circ : G_1 \geq G_2)$ and alternate hypothesis $(H_1 : G_1 < G_2)$. In the Table 4.1 calculated Z (= 17.860) is a significant value of Z at all the level of significance i.e., the hypothesis is strongly rejected. **This implies that percentage of SC/ST Beneficiaries is significantly greater than the percentage of SC/ST Non-beneficiaries in terms of training and capacity building programmes attended under NDP I for using milking utensils and assistances.**

(In the above paragraph G_1 denotes training and capacity building programmes attended for using milking utensils and assistances for SC/ST beneficiary households; G_2, denotes training and capacity building programmes attended for using milking utensils and assistances for non-SC/ST beneficiary households and G_2 denotes training and capacity building programmes attended for using milking utensils and assistances for SC/ST non-beneficiary households).

4.2 Services Availed from Social Institutions

Table 4.2: Services availed from social institutions

Sl. No.	Parameters	Code	Category of respondents			
			SC/ ST Beneficiary HoHo (a)	Non-SC/ ST Beneficiaries HoHo (b)	SC/ ST Non-beneficiary HoHo (c)	Non-SC/ ST Non-beneficiaries HoHo (d)
1	Assistance availed from the relatives	0	399 (99.8)	400 (100.0)	2878 (96.0)	955 (95.5)
		1	1 (0.2)	0	122 (4.0)	45 (4.5)
2	Assistance availed from poverty funds	0	252 (63.0)	268 (67.0)	2092 (70.0)	747 (74.7)
		1	148 (37.0)	132 (33.0)	908 (30.0)	253 (25.3)
3	Assistance availed in kind/aids from the Government	0	244 (61.0)	264 (66.0)	3000 (100.0)	999 (99.9)
		1	156 (39.0)	136 (34.0)	0	1 (0.1)
4	Aids/assistance availed from NGOs	0	392 (98.0)	393 (98.3)	3000 (100.0)	999 (99.9)
		1	8 (2.0)	7 (1.7)	0	1 (0.1)
5	Pension availed (old age pension, widow pension, differently-abled pension) etc.	0	362 (90.5)	363 (90.7)	2692 (90.0)	893 (89.3)
		1	38 (9.5)	37 (9.3)	308 (10.0)	107 (10.7)

Note: 0- denotes not availed, 1- mostly availed
Figures within parentheses are in percentage

Above Table 4.2 shows that SC/ ST beneficiary households availed were the primary recipients of the aids from the Government and poverty funds more than the SC/ ST non-beneficiaries. This is obvious because they got enrolled into these programmes and participated actively.

4.2.1 Assistance Availed from the Relatives

The percentage of assistance availed from the relatives is highest (4.5) by non-SC/ ST non-beneficiaries family followed by SC/ ST non-beneficiaries family (4.0) and least in SC/ ST beneficiaries family (0.2). Study finding also reveal that non-SC/ ST beneficiaries are not taken assistance from the relatives (Table 4.2).

4.2.2 Assistance Availed from Poverty Funds

The percentage of assistance availed from the poverty funds is highest (37.05) by SC/ ST beneficiaries family followed by non-SC/ ST beneficiaries family (33.0) and least in non-SC/ ST non-beneficiaries family (25.3) (Table 4.2).

4.2.3 Assistance Availed in Kind/Aids from the Government

The percentage of assistance availed in terms of kind/ aids from the Government are highest (39.0) by SC/ ST beneficiaries family followed by non-SC/ ST beneficiaries family (34.0). There is no assistance taken in terms of kind/ aids from the Government by SC/ ST non-beneficiaries family (Table 4.2).

4.2.4 Aids / Assistance Availed from NGOs

The percentage of assistance availed in terms of aids from the NGOs are highest (2.0) by SC/ ST beneficiaries family followed by non-SC/ ST beneficiaries family (1.7). There is no assistance taken in terms of aids from the NGOs by SC/ ST non-beneficiaries family (Table 4.2).

4.2.5 Pension Availed

The percentage of pension availed from the different pension schemes such as old age pension, widow pension, differently-abled pension etc. is highest (10.7) by non-SC/ ST non-beneficiaries family followed by SC/ ST non-beneficiaries family (10.0) and least in non-SC/ ST beneficiaries family (9.3) (Table 4.2).

There is some form of complaint/ grievance redressal system in place in almost all the project interventions visited by the survey team and the issues are resolved mostly at the local level. The complaints received were mainly technical and operational in nature which has been already resolved. There was no complaint/ grievance received related to inaccessibility of the project interventions or social inequity.

Thus it is concluded that in most of the cases, non-SC/ ST beneficiaries have availed more services of the project as compared to SC/ ST beneficiaries due to more information and awareness in general about the project activities. However, SC/ ST beneficiaries have the availability of many dairy-related services as compared to SC/ ST non-beneficiaries due to the impact of the project.

The major challenges faced by the SC/ ST sample respondent households were:

1. Their low education and awareness level about NDP I interventions as compared to non-SC/ ST households ;

2. Distance from the Satellite BMC/ DCS which is not in their own village;

3. No milch animals possessed by many SC/ ST households. Hence, many of them are unaware of the methods of rearing animals.
4. Less access to credit facilities due to poor economic conditions.

Impact of Project Interventions on Social & Economic Empowerment & Quality of Life of the Beneficiary.

5.1. Introduction

This chapter presents the assessment of the impact of NDP I interventions on the social and economic empowerment and quality of life of the beneficiary households. The positive changes should reflect in the socio-economic condition and quality of life of the beneficiaries.

In the absence of baseline data, the beneficiaries were enquired about their assessment on various aspects related to their socio-economic conditions both before and after the project implementation period. The beneficiaries were asked to assess various parameters on a scale of 0-4, where 0 denotes nil, 1 denotes low, 2: average, 3: high and 4 denotes very high. The changes thereof have been analysed by comparing the means of assessment scores. However, to rule out that such change is in fact due to NDP-1, status of the beneficiaries has been compared with a control group, i.e. the non-beneficiaries. All along, the primary objective of the study, i.e., the inclusion of the SC/ST beneficiaries has been assessed through ANOVA and F test scores.

The discussion on the impact has been broadly divided into two sections, viz. Impact on economic empowerment and Impact on Social empowerment.

5.2. Impact on Economic Empowerment

The impact on economic empowerment has been assessed by looking at beneficiaries' own assessment (see below) of contribution of Dairy Farming to total annual income for both before and after the project implementation, their credit and indebtedness level. And finally, the level of distress migration the beneficiaries had to undertake has been compared for scenarios before and after the project implementation. All along, the reported status of the beneficiaries has been compared with that of the non-beneficiaries.

5.2.1 Contribution of Dairy to Total Income

It is expected that by having access to project interventions the share of income from Dairy Farming to total annual income would increase for the beneficiaries. The respondents were asked to rate the contribution of the Dairy Farming to total income on a scale of 1-4, starting with low-1, moderate-2, high-3 to very high-4.

Table 5.1: Contribution of dairy to total income

Caste	Total sample HHs	Beneficiary						Total sample HHs	Non- Beneficiary					
		BPI			API				BPI			API		
		Mean	SD		Mean	SD			Mean	SD		Mean	SD	
SC	1492	1.14	0.85	$F_{2,3998} = 27.96$ P= 0 S	2.01	0.92	$F_{2,3998} = 28.54$ P= 0 S	200	0.48	0.73	$F_{2,798} = 7.39$ P= 0.01 NS	0.82	1.04	$F_{2,798} = 6.77$ P= 0.01 NS
ST	1508	1.09	0.87		2.00	0.91		200	0.47	0.75		0.75	1.03	
Non-SC/ST	1000	1.32	0.88		2.19	0.93		400	0.69	0.82		1.07	1.14	
Total	4000	1.17	0.87		2.05	0.92		800	0.59	0.79		0.93	1.09	

Mean Score: 1-Low, 2-Moderate, 3-High, 4- Very High

We can see from table 5.1 that, for the beneficiaries, their own assessment of the contribution of dairy Farming towards total income has improved from a mean score of 1.17 to 2.05 overall. For the non-beneficiaries, the change is by a lower margin from the mean 0.87 to 0.92 in the BPI and API scenario. Overall, the beneficiaries view dairy Farming's

contribution to total income to be moderate from a previously (before project intervention period) low level.

To see the existence of exclusion, ANOVA was conducted and the P value associated with the F test reveals that, whereas the difference of mean score between SC/ST and Non SC/ST categories of the beneficiaries is statistically *significant* at significance level of 0.05, the difference among different categories of non-beneficiaries is however *not* significant. Thus, there seems to be some exclusion in the way the SC/ST beneficiaries perceive Dairy to be contributing towards their total income. There could be varied other reasons for this and dairy is not the necessary cause for this.

5.2.2 Susceptibility to Credit and Indebtedness

The respondents were asked to assess themselves on their susceptibility towards credit and indebtedness before and after project interventions on a scale of 0-4, based on the occasions they had to resort to borrowing from others or if they failed to repay their debt. One can clearly see that, their susceptibility has diminished from 0.21 to 0.16 overall. For the non-beneficiaries, their susceptibility towards credit and indebtedness has in fact increased from 0.16 to 0.20. The F-test reveals that there is no significant difference among different categories of beneficiaries, indicating that the SCs/STs are not particularly susceptible to credit and indebtedness as compared to general category beneficiaries and all have benefitted equally from NDP-1.

Table 5.2: Susceptibility to credit and indebtedness

Caste	Total sample HHs	Beneficiary						Total sample HHs	Non- Beneficiary					
		BPI			API				BPI			API		
		Mean	SD		Mean	SD			Mean	SD		Mean	SD	
SC	1508	0.21	0.61	$F_{2,3998}$ = 1.533 P= 1.89 NS	0.14	0.49	$F_{2,3998}$ = 0.96 P=.039 NS	200	0.24	0.63	$F_{2,798}$ = 3.17 P=.042 NS	0.29	0.75	$F_{2,798}$ = 3.12 P=.044 NS
ST	1492	0.23	0.62		0.17	0.54		200	0.12	0.46		0.19	0.49	
Non-SC/ST	1000	0.19	0.55		0.15	0.48		400	0.14	0.47		0.16	0.49	
Total	4000	0.21	0.60		0.16	0.51		800	0.16	0.52		0.20	0.57	

Mean Score: 0-Nil, 1-Low, 2-Moderate, 3-High, 4- Very High

5.2.3 Vulnerability to Distress Migration

When the source of livelihood cannot provide adequate income, people are often forced to undertake distress migration. Distress migration causes enormous hardships. In addition it causes strain in family life that leads to a compromised and poor quality of life. Associated with NDP-1 and having access to various kinds of support flowing from it, the dairy farmers do benefit from this as their income level improves. To find out whether f such support has helped the farmers to overcome their vulnerability to distress migration, tthe respondents were enquired about their vulnerability to migration before and after the project implementation. The vulnerability has visibly decreased for the beneficiaries from 0.12 to 0.09, whereas for the non-beneficiaries it has actually increased from 0.08 to .0.15. The F test result shows that there is no significant difference among different categories of beneficiaries in warding off distress migration. However, among the non-beneficiaries, the vulnerability of SC/STis not just more than that ofNon-SC/STcategories, the difference is statistically significant too.

Table 5.3: Vulnerability to distress migration

Caste	Total sample HHs	Beneficiary						Total sample HHs	Non- Beneficiary					
		BPI			API				BPI			API		
		Mean	SD		Mean	SD			Mean	SD		Mean	SD	
SC	1492	0.15	0.47	$F_{2, 3998}$ = 1.533 P= .165 NS	0.14	0.51	$F_{2, 3998}$ = 0.96 P= .465 NS	200	0.14	0.41	$F_{2, 798}$ = 4.04 P=.018 NS	0.22	0.60	$F_{2, 798}$ = 4.38 P=.013 NS
ST	1508	0.13	0.47		0.07	0.35		200	0.04	0.29		0.19	0.54	
Non-SC/ST	1000	0.07	0.34		0.05	0.29		400	0.07	0.31		0.10	0.40	
Total	4000	0.12	0.45		0.09	0.41		800	0.08	0.34		0.15	0.49	

Mean Score Code: 0-Nil, 1-Low, 2-Moderate, 3-High, 4- Very High

5.3 Impact of NDP I on Social Empowerment

Social inclusion of the marginalized has been the key focus of this study. In this section social inclusion of the beneficiaries has been discussed by looking at their level of involvement in social decision making processes and the frequency with which they did raise their voices on social issues etc.

5.3.1 Involvement in Decision Making on Social Issues

The beneficiaries were asked to rate their involvement in social decision-making processes on a scale of 0-4, both in formal settings like Panchayat meetings etc. and under informal social settings. One can see that, their level of involvement has substantially increased from a 1.35 to 1.83. It can also be seen that the increase is much more pronounced for the beneficiaries as compared to non-beneficiaries of all sub-categories. For both, the beneficiaries and for the non-beneficiaries, the level of participation of Non SC/STrespondents is higher than that of SC/ST. Also, the F test result shows that, the difference between the SC/ST and Non SC/ST categories of beneficiaries is statistically significant for the beneficiaries, which can probably be understood by considering the fact that though economic condition of the beneficiaries may have improved over time, they have not been able to overcome the age old social barriers that still exist.

Table 5.4:-Involvement in decision making on social issues

Caste	Total sample HHs	Beneficiary						Total sample HHs	Non- Beneficiary					
		BPI			API				BPI			API		
		Mean	SD		Mean	SD			Mean	SD		Mean	SD	
SC	1492	1.33	1.09	$F_{2, 3998}$ = 20.14 P = .00 S	1.80	1.15	$F_{2, 3998}$ = 15.46 P = .00 S	200	1.24	1.15	$F_{2, 798}$ = 5.99 P=.003 S	1.68	1.18	$F_{2, 798}$ = 3.80 P=.022 NS
ST	1508	1.25	1.06		1.75	1.09		200	1.16	1.06		1.63	1.06	
Non-SC/ST	1000	1.53	1.16		2.00	1.18		400	1.48	1.18		1.89	1.25	
Total	4000	1.35	1.11		1.83	1.14		800	1.34	1.16		1.77	1.19	

Mean Score Code: 0-Nil, 1-Low, 2-Moderate, 3-High, 4- Very High

5.3.2 Greater Opportunity in Raising the Voice on social Issues

Similarly, one can expect that access to institutional support in the form of the project interventions will impart higher social awareness, and increase in income combined with increased social involvement will induce beneficiaries to raise their voice on social issues. The respondents were asked to rate their own behaviour in raising their voices on various social issues on a scale of 0-4. The result is presented in the table below and it can be seen that there is a discernible improvement (from 1.23 to 1.72) in the way the beneficiaries raised their voices in the API scenario by a clearly higher margin than that for the non-beneficiaries which has improved from 1.22 to 1.64. However, the mean score for the Non SC/ST respondents is higher than that for SC/STrespondents among the beneficiaries, and such difference is statistically significant which is understandable as social dynamics do not

change overnight. Thus, it may take some time before there is holistic inclusion of the SC/ST in the social sphere.

Table 5.5: Greater opportunity in raising the voice on social issues

Caste	Total sample HHs	Beneficiary BPI Mean	SD		API Mean	SD		Total sample HHs	Non-Beneficiary BPI Mean	SD		API Mean	SD	
SC	1492	1.21	1.07	$F_{2,3998}$ = 21.69 P = .00 S	1.68	1.07	$F_{2,3998}$ = 19.11 P = .00 S	200	1.24	1.15	$F_{2,798}$ = 7.65 P=.001 S	1.55	1.12	$F_{2,798}$ = 4.23 P=.015 NS
ST	1508	1.13	1.00		1.63	1.03		200	1.14	1.08		1.49	0.96	
Non-SC/ST	1000	1.41	1.11		1.89	1.09		400	1.37	1.25		1.75	1.18	
Total	4000	1.23	1.06		1.72	1.06		800	1.22	1.16		1.64	1.12	

Mean Score Code: 0-Nil, 1-Low, 2-Moderate, 3-High, 4- Very High

5.4 Conclusion

The impact of the NDP I on the beneficiaries was assessed in terms of their improvement in social, economic empowerment and in their quality of lives. It was found that the beneficiaries had a positive assessment of the contribution of the income from dairying towards their total income in the NDP I intervention period as compared to the pre-NDP I intervention period. During the NDP I implementation period, the non-beneficiaries also reported an increase in income but it was much less than that of the beneficiaries. It is remarkable that for the SC/ST beneficiaries, their assessment of the contributions from dairying to their total income was higher than those of the non-beneficiaries. Congruent with the increase in income, the dairy farmers are less susceptible to indebtedness. An enquiry of the farmers to assess themselves about their susceptibility towards credit and indebtedness before and after NDP I project interventions revealed that their susceptibility has diminished. It is interesting to note that, for the non-beneficiaries, their susceptibility towards credit and indebtedness has in fact increased. The increase in income and reduced susceptibility of the beneficiary households, consequently has led to a decrease in their vulnerability to distress migration. The F test score revealed that there is no evidence of exclusion of SC/ST households from the project interventions. Hence, the SC/ST beneficiaries in general are being economically empowered more as compared to those from the Non-SC/ST category.

The level of involvement of the beneficiaries in social decision-making processes has substantially increased. The difference is much more pronounced for the beneficiaries as compared to all the categories of the non-beneficiaries. The resultsalso show a discernible improvement in the way the beneficiaries raise their voices in the API scenario as compared to the non-beneficiaries, It may however be noted that in both the above mentioned social empowerment indicators, the respondents from Non-SC/ST categories have a higher score as compared to the SC/ST categories and the difference is statistically significant too. This implies that that, though there has been inclusion of SC/ST communities in the economic parameters, it is not the same case for all the studied social parameters. This is understandablethat for complete empowerment of these vulnerable and marginalized communities, the age-old entrenched social barriers need to be overcome. This requires a whole gamut of social interventions to be rolled in. It would be over-ambitious to expect the SC/ST beneficiaries to overcome all the social barriers solely by participating in NDP I activities. However, looking at the progress of the beneficiaries which is higher than that of the non-beneficiaries, one can be optimistic about the results of the future dairy projects. Hence, sustained support to these communities over a period of time will certainly result in their holistic inclusion and empowerment in the social spheres too.

Thus, NDPI has brought about a positive change in the socio-economic standards and quality of life of the beneficiaries especially from the SC/ST communities. However, there is still a lot of scope for further enhancement.This will be possible over time with appropriate institutionalised intervention strategies.

Chapter VI

Perception of EIA Functionaries / Stakeholders on Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP-I

6.1 Introduction

A comprehensive study was conducted in the selected ten states of India namely Jharkhand, Chhattisgarh, Odisha, West Bengal, Madhya Pradesh, Gujarat, Rajasthan, Maharashtra, Telangana and Karnataka under the project "Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe population under NDP-I. The objective of the study was to evaluate the impact of National Dairy Project on the lives of milk producing people with special emphasis on the SC/ST people who are traditionally poor. The extract of perception analysis of the Stakeholders and functionaries is as follows:

In a conscious effort made to mobilize the milk producers, village meetings along with awareness programs were organized in which people of all caste and categories including the SC/ST participated. People were detailed about the various project services and schemes under NDP-I and explained about the benefits of joining the milk societies. Apart from that, the participants were assured of all the information, guidance and advisory assistance regarding cattle care, cattle health, AI, cattle life insurance, etc. which would be provided to all the DCS members irrespective of their caste and status. People were informed about the fair and transparent payment system through the DCS which motivated them a lot. However, the response of the SC/ST villagers at the initial stage was mild in comparison to the Non SC/ST people. However, the participation of the SC/ST community gradually increased.

It was noted that Panchayats played a very active role in mobilizing the people and organizing village meetings. Apart from that some private organizations like BAIF and J.K.Trustparticipatedby conducting Artificial Insemination at minimal charges while Veterinary Department organised cattle health camps providing cattle vaccination and de-worming of cattle free of cost to the farmers which promoted dairy farming among the people. At times cultural dogmas inhibit people from taking up a particular job. However, no such belief and practices were found to be in existence among the SC/ST people in any of the states. The effects of exogenous factors like education, awareness, exposure to modern life and people's accessto the government departments have certainly increased the level of information and awareness among people related to dairy farming in all the states. These were quite evident during the stake holder consultations with the EIA functionaries who belonged to SC/ST as well as non-SC/ST category. The state-wise details about the perceptions of SC/ST and Non-SC/ST EIA Functionaries and other Stakeholders on social inclusion and as a result the empowerment of scheduled caste and scheduled tribe population are shown in Annexure V.

According to the functionarieswho were interviewed, the project services under NDP-I were offered to all including the SC/ST. In general, services offered under NDP-I were membership of DCS, BMC,fodder development programme, RBP, cattle feed and mineral mixture at subsidized rate, MAIT facility etc. The project services are administered through the DCS to all the members irrespective of their caste and were found to be people-friendly for all. The capacity building interventions were also taken up under NDP-I for people of all hues including the SC/ST. The interventions include village meetings and orientation

programmes related to dairy development, training programme such as Clean Milk Production(CMP) and Dairy Animal Management(DAM), Farmer Induction programme. The factors creating obstacles/barriers/constraints for the SC/ST in joining the EIA were also examined during the field research. The most common barrier observed was that most of the SC/ST households belong to very low and poor economic background and they lack capital to take up dairy farming on a commercial basis. Some of the other barriers observed were lack of knowledge about cattle management and cattle health care. In the States such as Jharkhand, Odisha, Chhattisgarh and Madhya Pradesh it was observed that most of the SC/STs own indigenous breed cattle which comparatively produce less milk which is generally consumed at home. In Chhattisgarh state, the biggest barrier faced by the farmers is delay in payment to them for their milk contribution. As regards removal of these obstacles for the SC/ST who are relatively more vulnerable, bank linkages to purchase cow/buffalo with special subsidy for SC/ST need to be done. Training camps are organized by the EIA for capacity building and proper facilities and awareness about Artificial Insemination is provided to the people. No barriers/obstacles/constraints were indicated by the SC/ST in receiving services pertaining to the DCS, BMC, fodder, animal health management, access to finances, technical knowledge, access to market and govt. support, etc. in any of the states.

In order to expand dairy activities among SC/ST, awareness camps, village meetings, Training programmes and Farmer Induction Programme were organized by the EIA. Few of the members including SC/ST were short listed and sent to State Training Centre. NDDB extended their full support in conducting these activities and expanding Dairy among SC/ST people.

Impact of NDP-I is evident from the fact that the participation of the SC/STs have increased. They have better understanding of cattle care and importance of balanced diet for the cattle. As also evident from the field data analyses, there has been improvement in the quality and quantity of the milk produced resulting in substantial increase in the income of the people. The government also provides special schemes for the SC/ST which too has encouraged them to join milk societies. Overall, the income and participation of the SC/ST has increased due to the intervention of NDP-I. Apart from crop cultivation, which is a traditional source of livelihood for the SC/ST, they now have an alternate source of income from dairy. The list of SC/ST and Non-SC/ST functionaries are presented inAnnexure I.

Chapter VII

Convergence of NDP I Interventions with Dairy Related Other Government Schemes in NDP I Implementation Area

Apart from the interventions in the NDP I implementation area, there are other dairy related Government schemes / plansfunctioning in the selected 10 states, namely, Jharkhand, Chhattisgarh, Odisha, West Bengal, Madhya Pradesh, Gujarat, Rajasthan, Maharashtra, Telangana and Karnataka.

The sate-wise details of dairy related Government schemes / plansthat are functioning within the NDP I implementation area is shown in Table 1.1. The data is based on personal interviews / discussionsamong different project functionaries and stakeholders of the concerned EIAs, DCS and State Milk Federations in the selected ten states,

Table 7.1: Details on dairy related Government schemes in NDP I implementation area

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
1	Jharkhand	i. *RashtriyaKrishiVikasYojana* (RKVY)	• The BPL cardholders are given assistanceto buy cows.
		ii. Integrated Tribal Development Programme (ITDP)	• This program was specifically meant for ST beneficiaries, • They were provided with cattle to promote dairy business among ST communities, • The program was implemented in the year 2010.
		iii. *Sudana*- Mineral Mixture and Cattle Fodder	• In order to enhance the uptake of diary as farming, the State Government used to provide subsidy in Mineral Mixture and Fodder (*Sudana*) in the initial years of the Federation.
		iv. Assistance in obtaining AI Semen	• Government provides assistance in obtaininggood quality semen.
		v. *Pashudhan* Insurance Scheme	• The objective of the scheme is to provide insurance for cattlecompensating the losses due to death of the milch / non-milch / other animals.
		vi. National Bank for Agriculture & Rural Development (NABARD)	• NABARD provides loan at low interest rate for buying cattle.
		vii. BAIF - Awareness Camp in Partnership	• In order to promote dairy farming as a livelihood option for SC/ST population, JMF has partnered with BAIF foundation which provides Artificial Insemination facilities and conducts training in cattle care and management to SCs/STs and others also.

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
2	Chhattisgarh	i. State Government Incentives	• The Chhattisgarh Government provides incentives of Rs.1.00/liter of milk, Rs.2.5/liter for transportation, Rs.3.5/liters for cattle feed. It comes to total Rs. 7/liter of milk as incentives to the farmers to encourage them to join the milk society.
3	Odisha	i. State Government Incentives	• It is the Odisha Government's initiative to provide Rs.1.00 per liter of milk to milk pourers to add to their income and encourage others to take up dairy as a source of livelihood. • Odisha Government provides Rs.1,13,000/- per individuals for construction of cow shed n condition that the individual should have at least 03 cows and 03 calves. • 28 bags of cattle feed,each of weighing 50 kgareprovided at 50% subsidy to the farmers who have 4 months to 2 years old calves. • 50% subsidy provided for cattle insurance. • Only Rs.40/- is charged for the semen.
		ii. Integrated Dairy Development Programme (IDDP)	• The IDDP scheme was launched in 1993-94 on the 100% grant-in-aid basis with the main objectives: • Developing milch cattle, • Increasing milk production by providing technical input services, • Creating infrastructure to improve procurement, processing and marketing of milk in a cost effective manner, • Ensuring remunerative prices to the milk producers by strengthening dairy cooperative societies at village level. • Generate additional employment opportunities. • Improving social, nutritional and economic status of the residents of comparatively disadvantaged areas. • The scheme was modified during March 2005 and was named as 'Intensive Dairy Development Programme' (IDDP). It is being implemented in hilly and backward areas and in the districts which received grant less than Rs.50.00 / lakh for dairy development activities during Operation Flood Programme.

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
			• The funds are now released directly to the implementing agency i.e. the State Dairy Federation / District Milk Union. • The scheme wasin operation during the 11th Five Year Plan (2007-12) with a total plan outlay of Rs. 2750millionsas merged scheme together with 'CMP'. • Two animals were provided per society under IDDP in Odisha.
		iii. Tribal Women's Dairy Project	• Providestrainingstotribal women. • Constructions of BMCs in tribal areas (in 05 ITDA Blocks).

4	West Bengal	i. Department of Animal Husbandry & Dairying [1]	• Assistance provided for the :
			  i. Construction of Society Building,
			  ii. AMCU(s),
			  iii. Cattle insurance,
			  iv. Chaff Cutter,
			  v. Cattle Shed for Individual Women Farmers.
			  vi. Animal Health care
			  vii. Vaccination
			  viii. MAIT (Mobile Artificial Insemination Technician facility.
			  ix. Livestock Health & Disease Control

		ii. Department of Animal Resources Development [2]	• Encourages Azolla cultivation among the marginal farmers having almost no land for fodder cultivation who opted for production unit as an alternative source of green fodder, • Provisions of fodder seeds.
5	Madhya Pradesh	i. *Nandi Shala Yojana* [3]	• In view of improving the breed quality of the local unspecified / graded, cattle of the rural areas, the natural conception of the indigenous described bulls is provided on a grant basis to the cattle rearers for the services, • Supplies fertile indigenous described cow-bulls at subsidized rate. • Supplies indigenous described breeds such as cow-bulls like Sahiwal,Tharparkar, Haryana, Gir, Gaulav, Malvi, Nimadi, Canakathaetc; at the *Gram Panchayat* level as grant to the progressive cattle rearers,
		ii. Improved Animal Breeding Scheme	• The pedigreed breeding bulls are provided to progressive cattle farmers or to the trained cow servants for the purpose of Breed improvement.
		iii. *GauSewak* Training	• To enable educated unemployed rural

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
			youth towards self-employment and to provide primary veterinary services to remote areas.
		iv. *Gau Pal* Award Scheme	• Proposes to promote rearing of the Indian Bovine Animals and to increase milk production, • With this, the livestock is expected to get additional income and the use of male vats produced from the Indian breed of cows for farming, • Along with this, it expected to increase milk production as well as the number of cattle producing cattle of Indian improved breed.
		v. *Pashudhan* Insurance Scheme	• The objective is to provide insurance facilities to the cattle to compensate for losses due to death of the milch / non-milch / other animals and thereby to prevent the economic loss.
		vi. Integrated Tribal Development Programme (ITDP)	• Was implemented in 2007. The beneficiaries were provided with cattle sheds and cattle to uptake dairy as farming.

6	Gujarat	i. Fodder Development Programme
		ii. Ration Balancing Programme
		iii. Intensive Dairy Development Programme (IDDP)[4]
		iv. Livestock Health & Disease Control (LH&DC)[4]
		v. National Programme on Bovine Breeding and Dairy Development (NPBBDD)[4]
		vi. National Livestock Project[4]
			• Assistance provided for :
			  i. Construction of Society Building,
			  ii. Furniture,
			  iii. AMCU(s),
			  iv. Animal Health Care
			  v. Vaccination
			  vi. MAIT (Mobile Artificial Insemination Technician) facility.
			• Provision of Fodder Seed,
			• Government to lease out gochar land for fodder cultivation,
			• Subsidy provided for cattle loan for the STs,
			• Cattle insurance,
			• Progeny testing,
			• Pedigree selection,
			• Strengthening existing semen stations.

7	Rajasthan	i. *BhamashahPashuBeema Yojna*[5]	• A Bhamashah cardholder and member of society can insureupto their 05 milch animals with the premium of Rs.2.90/- for one year.
		ii. Oriental Insurance Company-Insurance[5]	• Claim of insurance up to Rs.5 lakhs and Rs.2 lakhs on medical assistance for severe diseases.
		iii. *PradhanMantriJeevanJyotiBeemaYo*jna	• Rs.2 lakhs insurance coverage for normal death and Rs.04 lakhs coverage

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
		(PMJJBY) and *PradhanMnatriJeevanSurkshaBeemaYojna* (PMJSBY)[6]	for accidental death to 18-50 year age group insured member of the cooperative society.
8	Maharashtra	i. Department of Animal Husbandry & Dairying[7]	• Training to beneficiary SCs in Animal Husbandry for self-employment with DA for 03 days and TA of Rs.1000/- per beneficiary. • Promotes certified seed production in order to distribute seeds of improved fodder crop species (Jowar / Maize / Bajari / Berseem / Lucern etc.) to the farmers. • Develops non-forest wasteland / rangelands / grassland / non arable land & produce legumes & grasses as fodder. • Distribution of hand driven chaff cutter machines according to the Indian Standard Certification, • Distribution of power driven chaff cutter machines according to the Indian Standard Certification. • Provides subsidy for making silage from excess produce of green fodder during rainy season. • Provides subsidy for the establishment of high capacity fodder block making unit from crop residue by modern technique which would be useful during scarcity period. • Subsidy for the establishment of low capacity fodder block making unit from crop residue by modern technique which would be useful during scarcity period. • Subsidy for the establishment of area specific mineral mixture / palette feed / feed manufacturing unit. • Provides subsidy for the establishment of bypass protein making units.
9	Telangana	i. Farmer Induction Programme	• The State Government provides 75% subsidy to SCs/STs to purchase the cattle with the unit cost of the animal is taken as Rs.80,000/- out of which Rs.60,000/- is provided by the Government as subsidy and the farmer has to contribute only Rs.20,000/-, • An initiative to provide Rs.4.00/- per liter to all the milk pourers including SCs/STs as an incentive for their milk

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
			contribution to the society. It is to increase their income.
		ii. *JanashreeBimaYojna* (LIC)	• 50% subsidy from Union Government. • Accidental cover of Rs.70,000/-
10	Karnataka	i. PashuBhagya Scheme[8]	• Provides back ended subsidy of 33% to SC / ST farmers and 25% to other small and marginal farmers for establishing cattle, sheep, goat, pig, poultry units when availing maximum loan of Rs.1.20/- lakh from a commercial bank (The subsidy to SC/ST has been revised from 33% to 50% vide *PashuBhagya*Administrative Approval GO, dated 04-08-2015), • Provides short-term loans up to Rs.50,000/- at 0% interest rate through Co-operative Banks along the lines of crop loan for providing cattle feed / other maintenance expenditure, • Subsidy will be provided to the members of Milk Producers' Co-operative Societies for payment of insurance premium up to 05 cattle, • The scheme of providing Rs.5,000/- ex-gratia payment under *'KurigahiSuraksha*Scheme' continues, • Provides grant of Rs.50millions for this program.
		ii. Atal Mission for Rejuvenation and Urban Transformation (AMRUTH) Yojana	• Up to 75% subsidy provided for cattle loan (Milch Animals).
		iii. National Bank for Agriculture and Rural Development	• Financial Facilities (subsidy up to 33% in dairy and animals loans).
		iv. *Ganga Kalyana* Scheme	• It is implemented for ST beneficiaries of small and marginal farmers by providing irrigation facilities to dry land through tube / open wells and lift irrigation schemes.
		v. Milk Incentive to Milk Producers	• Incentives are provided to the farmers at the rate of Rs.5.00/- per little that is procured by Co-operative societies.
		vi. *Yeshasvini* Health Insurance Scheme	• This is only for employees working in cooperative societies. The health policy introduced by the Government of Karnataka will not only help the poor farmers, but also help their family to get

Sl. No.	States	Dairy Related Other Schemes	Specific provisions
			benefits from this scheme. In order to take advantage of this scheme, people of rural areas will have to spend Rs.300/- and in urban area Rs.710 /- annually.
			• The plan behind this scheme is to reach healthier people in most of the country. This plan is completely self-funded.
			• Under this scheme, more than 800 healthcare facilities will reach the farmers.
			• Health insurance up to Rs.5.00/- lakhs is provided to the members. SC/ST members have to pay only Rs.10.00/- per year per member as premium. Life insurance of Rs.70.00/- thousand is also provided to the SC/ST members.
			• Through LIC, New Group Term Insurance. (Premium Amount: Rs.110/- person, subsidy from Union Government of Rs.50/- Person) Death Claim (Human: Rs.30,000/- & for Cattle Rs.80/- of Animal Value)
			• Extra subsidy up to 75% is provided by the State Government to the ST members to purchase cattle.
			• Extra subsidy up to 60% is provided by the State Government to the SC members to purchase cattle.

Several programmes related to dairying co-exist in the NDP I implementation area and even some have common objectives, provisions and target beneficiaries. Hence, there is a need of establishing state-wise convergence and synergy among various Government Schemes / Plans as well as between the various implementing agencies.

Chapter VIII
Success Stories

Agriculture is primary source of income particularly for rural India. Here Animal Husbandry and Dairy farming plays important role for supplementing family income and generate gainful employment in the rural sector, particularly among the landless labourers, small and marginal farmers and women. In this study, successstories were included as one of the evidences of the success of NDP I. This chapter contains five important success stories pertaining to the NDP I interventions. These stories were collected during the field survey from five EIAs located in five states namely Sabarkantha milk union in Gujarat, Kishan milk union in West Bengal, Dakshin Kannada milk union in Karnataka, Mulukanoor Women's Cooperative Milk union inTelangana, and Puri milk union in Odisha,

8.1 Success Story of Ajepur Milk Producer Cooperative Society, Sabarkantha, Gujarat

Ajepur is a medium size village located in VijaynagarTaluka of Sabarkantha district, Gujarat with a total 121 families residing there. The Ajepur village has a population of 677 of which 329 are males and 348 are females as per Population Census 2011. The houses are not in a cluster but are spread across the area. This village is tribal dominated village with almost 99% population belonging to Schedule Tribes.

Economically most villagers depend on agriculture & milk income. Earlier milk producers pouring milk at adjacent Aatarsumba, Vajepur, Dholivav DCS which was 3-4 km away from Ajepur village. The villagers used to walk it down or use bicycles for pouring milk all year round. There was a lot of bias against Non-member milk pourers at this DCS. There was no transparency in Fat testing and the villagers had to settle for a lesser Fat% being non-members. The behaviour of the DCS staff was very arrogant and rude. On payment date non-member milk-pourer had to wait for a long time to get the payment.

After NDP I Intervention

Mrs. Shantaben came to the village post retirement and constructed a house. Her native village was 32 km away from Ajepur but she purchased land for agricultural purpose in Ajepur. Women of the village requested her to do something for organization of a DCS as she was educated and progressive. She initiated meetings with the youth and women of village while the chairman of Vajepur DCS simultaneously initiated formation of new DCS at Ajepura.

Ajepur Milk Cooperative Society (Milk collection Point)

Inside view of milk collection point, Ajepur DCS

Despite a lot hindrances and rumor mongering, the Ajepur DCS started on 21th March'2015 as an all women VDCS. The society registered 107 member producers all being women. The new society was housed at an accommodation provided by a fellow milk producer. The DCS started with 124 litres of Milk collection on the first day and has now reached 280 litres per day.

Mrs. Shantaben one of the progressive famer of Ajepur DCS

Well maintained cow shed of Mrs. Shantaben

At present there is no BMC and AMCU installed in the DCS because the collection of milk was not substantial but with increased collection even this facility will be made available at the DCS shortly. Mrs. Shantaben has offered to donate land for construction of a permanent VDCS building. Producers are optimistic about a brighter future with the organization of this DCS.

8.2 Success story of Adiwasipara (Bholadanga) Women's Milk Producer Cooperative Society Ltd, Nadia District, West Bengal State

Bholadanga village is located in Nakashipara Tehsil, Nadia district, West Bengal, India. It is 13.6 kms from sub-district headquarter Nakashipara and 29.4 kms from district headquarters Krishnanagar. As per Census 2011, there were about 844 houses in Bholadanga village and the total population was 3,534 comprising 1839 (52.04%) male and 1695 (47.96%) female. The demographic data of the village reveals that the Schedule Castes (SC) constitute 22.69 % and the Schedule Tribes (ST) 18.39 % in Bholadanga village.

Like other neighboring villages, agriculture and its allied activities are the main source of livelihood for the people of Bholadanga. Animal rearing, especially the milch animals, was not new for the villagers. But, there was lack of interest among the villagers to enhance their livelihood by selling milk. This was because the cost for animal rearing and maintenance was high; the absence of proper market for selling milk was also one of the challenges for the villagers, besides cheating by the middle men during collection of milk from home, low yielding cows, lack of health care facilities for the animal, etc. contributed to the lack of interest of the farmers in dairying. The poor economic condition of an average family in the village poses a great challenge for the villagers to take up dairying as a livelihood option.

In January 2015, officials from Kishan Milk Union of Nadia District conducted the first meeting with villagers and persuaded them to start a dairy cooperative society in Adiwasipara of Bholadanga village under NDP I. The concentration of Schedule Caste and Schedule Tribe families was more in Adiwasipara. Representatives from Kishan Milk Union explained how the milk union would support the farmers in terms of training for clean milk production, collection of milk at the village level with accurate measurement, make payment

every ten days, ensure the availability of veterinary doctors through the dairy co-operative society, MAIT facility and many more benefits and services. After the meeting, the villagers became interested to become members of the Dairy Cooperative Society. As expected it was not easy for the poor farmers to start rearing animalsin one go. Apart from this, some of the milk producers had already taken advance payment from the middle men (locally known as Ghosh) which had to be refunded in installments through sale of milk. After discussions, the villagers made up their mind to join the milk union and start dairy farming and establish it as their alternate livelihood option.

On 1st April 2015, the "Adiwasipara (Bholadanga) Women's Milk Producer Cooperative Society Ltd." was established with 45 members. Majority of the milk producers belonged to the SC/ST community. Mrs. BasantiMandal became the Chairman of the Women Milk Producers' Cooperative Societies Ltd. (WMPCS) and Mrs. PhoolmalaBiswas became the secretary of the WMPCS. On the first day of the Co-operative formation, only 10 liters milk could be collected from the farmers.

Members of WMPCS, Bholadanga

Members are pouring milk at WMPCS (Bholadanga)

XISS team member site visit of fodder filed with the secretary WMPCS and the Fodder development Officer, Kishan Milk Union

Discussion with the secretary WMPCS and the Fodder development Officer, Kishan Milk Union at DCS

Under NDP I, there were many project benefits and services offered by Kishan Milk Union to all the members of the DCS such as training on cattle care management, cattle disease control management, Fodder Development Programme, Ration Balancing Programme, Clean

Milk Production, ensuring the availability of cattle feed and mineral mixture at DCS level, cattle insurance, MAIT facility, facilitate the veterinary doctor support from Blocks, exposure visits of farmers to other DCS, vaccination facility, ensuring availability of certified seeds for green fodder cultivation, etc.

In 2019, 75 milk pourers became members of WMPCS of which 25 members were from ST community while 35 members were from SC and 15 members from the OBC community. Milk collection increased gradually and after a few months 130 liters of milkper day was being collected from this milk co-operative society which is significant.

The establishment of this WMPCS in Bholadanga village led to thefinancial empowerment of the rural women especially from the SC/ST communities.

8.3 Success story of Punacha village Dairy Cooperative Dairy, Dakshina Kannada, Karnataka

Punacha village is located in Bantval Tehsil of Dakshina Kannada district in the state of Karnataka. It is situated 28 km from the sub-district headquarters Bantval and 52 km from the district headquarterMangalore. Punacha is a large village with 1620 families.As per the Census record 2011, the village has total population of 7978 of which men are 4009 and women 3969 in numbers. The village has a substantial population of Schedule Tribes (ST) constituting 28.24 % and Schedule Caste (SC) 6.35 % of the total population of Punacha village.

The milk society in Punnacavillage is performing very well The villagers are highly motivated to pursue dairy farming as an alternate source of livelihood. Presently 85 ST and 05 SC members are associated with the milk society out of the total membership of 305. The daily milk collection of the society is around 1200 liters.

Members of Punacha Society

**Mr
G
Pu**

Suresh Gowda, a highly motivated member of the DCS has become an inspiration for others around him. He got associated with dairy in the year 2000. At that time he had only one cow and was pouring 8-10 liters of milk per day. Once he got associated with the milk union in 1983, he realized the opportunities associated with Dairy farming and decided to pursue dairy farming at a large scale. With the help of Artificial insemination facility provided by the milk union at minimal cost, he increased the number of good high yielding cows. Currently he owns 12 cows and all of them are bred through Artificial insemination. As a result, he didn't have to purchase any of the cows from the market.

He contributes 90 liters of milk every day to the society. Every day he feeds about 50kgsof cattle feed to his animals which he purchases from the milk union at a subsidized rate. He has also developed one acre of land for fodder cultivation. He practices Ration Balancing at his farm and provides appropriate ration to his animals. Over the period of time, the quantity and quality of milk at his farm has gradually increased and so has his income.

Apart from Dairying he engages in crop cultivation also. He has 12 acre of land in which he cultivates coconut, beetle nut, cashew and rubber. One remarkable thinga bout him to note is that he practices organic farming and uses cow dung only as fertilizers. He also has poultry with around 700 birds. But Mr. Suresh prefers dairy over poultry and considers dairying as a steady and regular source of income. According to him, "If one can generate more than 15 litre of milk per day per cow, only then the dairy will be profitable for him".

Through dairying, Mr. Suresh has generated a sustainable and regular source of income and the money earned from the dairy is being utilized to secure the future of his children and family. He claims that "it was only because of the earnings from dairy, that he was able to enroll his son in a reputed college and pay the fees". His son has now completed his graduation and pursuing his Masters, in microbiology. Mr. Suresh was very proud of his achievements. Apart from educating his son, he has utilized the money to expand his dairy business and wishes to involve in dairying on a larger scale. Recently he has constructed a cow shed which costed him around 5 lakh rupees. He has his own bore well to meet the water requirement forthe dairy.

Mr. Suresh Gowda is an inspiration for many and has been recognized with awards several times for his dedication in this sector. He has been awarded with "KrishiPandit Award" from the state government and "Best Agriculturist" award from Gandhi KrishiVignan Kendra, University of Agricultural Sciences, Bangalore, "Best Agriculturist" award from District Central Co-operative Bank. He has also been felicitated by the milk union for developing the best fodder development plots. For the past 10 years, he has been the highest milk pourer of the society.

8.4 Success story of Mulukanoor Women's Cooperative Dairy, Karimnagar, Telangana

The MulukanoorWomen Cooperative Dairy (MWCD), Telangana is a classic example of women entrepreneurship in India. Mulukanoor Women's Cooperative Dairy is located in Karimnagar district of Telangana state. Dairy promotion on a Cooperative basis came with the exploration of ways of investment that would benefit a large section of poor people in Mulukanoor. It was realized that many of the rural households were having milch animals which were mainly managed by the women. Thus the idea of starting Women Dairy Cooperative emerged. With the support of Mulukanoor Cooperative Rural Bank (MCRB), a leading agriculture Co-operative bank in India and National Dairy Development Board (NDDB), Mulukanoor Women Dairy Cooperative was formed on August 17, 2002. As on 31.03.2018, there were 170 women dairy cooperative societies operating under MWCD with a membership of 22879 rural women. Apart from this it has generated employment for more than 250 people at the WDC society level. The special feature of this milk co-operative union is that it is entirely operated by women.

The intervention of NDPI had a special emphasis on inclusion of SC/ST households to Dairy Farming. In order to do so, MWCD had adopted a unique strategy at the village level. Raja GoniThanda is a hamlet of Khatkoor village consisting of only ST households. Before the intervention of NDPI, there was only one milk society functional in Khatkhoor village and the members from Raja GoniTanda used to pour milk there. . But after the intervention of NDPI, a new milk society was formed in the Raja GoniTanda hamlet consisting of all the committee members belonging to the Scheduled Tribe communities. Upon seeing their representation, more and more ST households started getting associated with the milk society. The number of members from the hamlet pouring milk at the society increased significantly from 30 to 74 and the society is collecting more than 400 liters of milk every day. Earlier the

people of this hamlet were engaged in bootlegging for their earning their livelihood. In fact, consumption of liquor was in their tradition. "The first thing which we used to consume in the morning was a glass of liquor. In fact, it was in our tradition that whenever any baby was born, the first thing which we make the baby taste was a drop of liquor which is even before the mother's milk" said G.Shantama, a resident of Raj Tanga hamlet and a member of the milk cooperative society. She further continued, "However, the condition of their people has drastically changed for the better after the intervention of NDPI. Now the consumption of liquor has completely stopped and every household in the hamlet is engaged in dairy farming. Every household has at least 2-3 milch animals and is pouring milk at the society". Presently G.Shantam owns two Gir, one jersey and two HF breed cows and two buffalos. She is pouring more than 25 litres of milk to the society every day throughout the year.

| Women members of Raja GoniTanda, Khatkoormilk cooperative society, Mulukanoor. | G. Shantam, resident of Raj Tanga hamlet and a member of the milk society, MWCD. |

The members of the society receive various services and full assistance from the MWCD. Under Ration balancing programme, members have become aware about the balanced diet which they should provide to their milch animals. Earlier their land used to remain unutilized as they were not practicing agriculture but now they are utilizing their land for fodder cultivation. Some of the households are engaged in silage making. Gradually the quality and quantity of the milk at the society has increased and the members are now receiving much higher price for their milk as compared to the price they used to receive before. In addition, the members are also receiving various types of subsidies such as 50% subsidy on purchase of veterinary medicines and fodder seeds, 100% subsidy for vaccination and de-worming, 3% premium subsidy on animal value for milch animal insurance. Life insurance coverage of Rs. one lakh for accidental death and Rs. 25 thousand in case on natural death is also provided to the members of the society and their husbands. Facility of artificial insemination is provided at a minimal charge of Rs. 50 per dose and almost all the households have now high yielding breed of milch animals. The average income of the society has risen to about 15-20 thousand rupees per month through milk sale which is directly transferred to the bank accounts of its members.

The successful operation of this Milk co-operative Society has really empowered the rural women who were earlier not financially independent. This is a great inspiration for the neighbouring areas wherein people are getting motivated to adopt dariying as an alternate source of income.

8.5 Success story of Sidheswari women Dairy Co-operative society, Odisha

People of rural India face a lot of hardships to earn livelihood. A majority of them are engaged in agriculture, animal husbandry and other ancillary activities. Cattle-rearing is a diversification from the existing agricultural activities and rural women are largely engaged in this activity.

A suitable example for the above can be "Sidheswari women Dairy Co-operative society" where women are actively engaged in dairy farming and earn an alternate and sustainable source of livelihood for their families. This society is in Rench village of Nimapara Block of Puri district in the state of Odisha. Presently the dairy cooperative society has more than180 women members in which the participation of Scheduled castes is high. "Out of the total membership of 180, 47 members belong to the Schedule Caste community. All the Schedule Caste households who have milch animals have joined the dairy society", Said MamtaMahapatro, Secretary of the DCS. She further said, "Out of the 15 DCS committee members, 6 belong to the Schedule caste community".

Members of Sidheswari women Dairy Co-operative society.

Mobilizing women to join the dairy society was not an easy task. In order to do so, several village level meetings were conducted in which the people were informed about the various benefits of joining the society. Officials from OMFED (Bhubaneswar) also participated in these meetings wherein they oriented the people about various services and assistance provided by the dairy society. The people were informed about the fair and transparent payment system of the dairy society and explained how association with the dairy co-operative society would mean a source of additional, regular and sustainable income. Eventually all those households which had milch animals joined the dairy cooperative society.

As promised, the members of the society are receiving all the services and assistance from the dairy cooperative society. Under Ration Balancing Programme of NDPI, special emphasis is given on cattle feed in order to improve the quality and quantity of the milk produced. There is daily feed measurement chart at the DCS centre. It provides information about quantity and combination of daily feed like oil cake, *chokkar, chunni*, rice bran, green fodder etc., which need to be provided to the cattle. Also the mineral mixture is provided to the members at

subsidized rate of 50%. At present the average fat content and SNF of the milk poured at the society is 4.5% and 8.3% respectively. The facility of artificial insemination is provided to the milchanimals of the members at a very minimal charge. Only Rs.40 per dose is charged from them for the service. Today most of the households own high yielding breed of cows. Various training programme related to Clean Milk Production and Dairy Animal Management is provided to the members. Health camps are organized regularly wherein de-worming and vaccination of cattle are done free of cost by the Animal Husbandry department of the state. A subsidy of 50% is also provided by the state government to the DCS members on cattle insurance. All the members also receive an incentive of Rs. one per litre on milkpoured by them at the dairy cooperative society by the State Government. The AMCU installed at the DCS assures fair and transparent system of payment and all the members receive their payment directly in their bank account. Apart from this, the society earns a profit of around Rupees two lakhs every year as price difference, which is distributed among the members as yearly bonus.

Successful performance of Sidheswari women Dairy Co-operative society has brought about positive changes in the socio-economic life of its members. It has increased the level of awareness, mobility and participation of the women members and has resulted in their financial empowerment.

Chapter IX
Conclusion and Policy Implications

The NDPIproject has brought about several positive changes in the socio-economic standards and in the quality of life of its beneficiaries including the vulnerable classes, i.e. women, scheduled caste and scheduled tribe people and small holders. However, a closer look at the analysis of the data in availing the services and at the impact assessment reveals that there is still a large scope to further enhance these positive effects of the project. Adopting appropriate institutionalized intervention strategies and close monitoring of the activities over a period of time will certainly help in yielding better results.

Agriculture as well as dairy farming have been traditional occupations for most of the rural people across the country but generally not aspired by today's educated youth. Though, there is no dearth of innovative approaches adopted in these sectors, they have not attained a prominence as industry. However, to make dairy projects like NDP I more effective, it needs to be morebroad and need based, inclusive and monitored efficiently so that the benefits reach the intended beneficiaries adequately and in time.

The NDP I project had a greater impact on the vulnerable and marginalized communities in its intervention area. Also, since these communities were included appropriately at all levels, the benefits from the project were derived equitably by these communities. In pursuance of the World Bank guidelines on Indigenous people, wherever these communities reside in large numbers, they were included appropriately in order to build their capacities and empower them so that their poverty could be eliminated and they can move along the path of sustainable development ensuring their dignity, human rights, economies and culture.

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2 http://wbard.gov.in

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5. AlbarJilaDugdhaUtpadakSahkariSangh Limited, Albar (2018-19)

6. Jaipur JilaDugdhaUtpadakSahkariSangh Limited, Jaipur (2018-19)

7 http://ahd.maharashtra.gov.in/schemes

8PashuBhagya Administrative Approval GO, dated 04-08-2015

a. List of Scheduled Caste (SC) Functionaries/Stakeholders

Sl. No.	Name	Designation	State
1	Mr. Vinay Yadav	BMC Operator	Jharkhand
2	Mrs. Urmila Devi	Secretary, DCS	Jharkhand
3	Mr. Shiv Shankar Yadav	Committee Member, DCS	Jharkhand
4	Mr. Ashok nathSahdeo	Secretary, DCS	Jharkhand
5	Mrs. Chandradeep	Secretary, DCS	Jharkhand
6	Mrs. Suchitadevi	Secretary, DCS	Jharkhand
7	Mrs. NuniBaiSarthi	Committee Member, DCS	Chhattisgarh
8	Mr. AbhimanyuChauhar	Committee Member, DCS	Chhattisgarh
9	Mr. GanpatRatre	Committee Member, DCS	Chhattisgarh
10	Mr. Mamta Singh	Committee Member, DCS	Chhattisgarh
11	Mr. Mano Mahadan	Committee Member, DCS	Chhattisgarh
12	Mr. Uma Chowhan	Committee Member, DCS	Chhattisgarh
13	Mr.Basant Malik	Committee Member, DCS	Odisha
14	Mr. ManjuKandi	Committee Member, DCS	Odisha
15	Mr. Mali Boi,	Committee Member, DCS	Odisha
16	Mr.LabanyoBehra	Committee Member, DCS	Odisha
17	Mr. Radhakant Seth	Committee Member, DCS	Odisha
18	Mr. Rabathi Das	Committee Member, DCS	Odisha
19	Mr. RaghurajBanshi,	Secretary, DCS	West Bengal
20	Mr. SubadanRajbanshi,	Chairman, DCS	West Bengal
21	Mr. JagannathRajbanshi	Secretary, DCS	West Bengal
22	Mrs. FulmalaBisas	Secretary, DCS	West Bengal
23	Mr. TukuMondal	Chairman, DCS	West Bengal
24	Mr. ShipraMondal.	Secretary, DCS	West Bengal
25	Mrs. Bishakha Modal	Secretary, DCS	West Bengal
26	Mrs. Maya Devi Sardar,	Secretary, DCS	West Bengal
27	Mr. AsisLohar	Supervisor- Kangsaboti Milk Unions Ltd.	West Bengal
28	Mr.KailashBhura	Committee Member	Madhya Pradesh
29	Mrs.SitaBai (DCS Member of Indrawal DCS),	Committee Member	Madhya Pradesh
30	Mr.BanshiTolaRam	Committee Member	Madhya Pradesh
31	Mrs.SuganBai	Committee Member	Madhya Pradesh
32	Mr.ShyamlalMalwi	Committee Member	Madhya Pradesh
33	Mrs.SarojBai	Committee Member	Madhya Pradesh
34	Mr. BankarKoder	Secretary, DCS	Gujarat
35	Mr. GalcharBabuBhai	Committee Member, DCS	Gujarat
36	Mr. RevaBhai	Sarpanch	Gujarat
37	Mr. Parmar Kirtiraj	Supervisor, Bodali Chilling Center	Gujarat
38	Mr. Parmar Bharat Tatilal	Supervisor, Baroda Dairy	Gujarat
39	Mr.VankarMukesh	Ward Member	Gujarat
40	Mr. KeshulalPannaPaliwal	-	Rajasthan
41	Mr. Kamlesh Dhangi	Secretary, DCS	Rajasthan
42	Mr. Dhanna Ram Danji	Local Resource Person	Rajasthan
43	Mr. HarinarayanMeena	Secretary, BMC	Rajasthan
44	Mr. HiralalBairwa	Dudh Mitra	Rajasthan
45	Mr. Ashok Kumar	Secretary, BMC	Rajasthan
46	Mr. Sachin PralhadAhire	Committee Member, DCS	Maharashtra
47	Mr. BhagwatMithalKoli	Sarpanch	Maharashtra
48	Mr. RajaramTinkaram	Committee Member, DCS	Maharashtra

Sl. No.	Name	Designation	State
49	Mr. MarutiSankarKambre	Committee Member, DCS	Maharashtra
50	Mr. Sandesh R Robal	Local Resource person	Maharashtra
51	Mr. Suwarna Salve	Sarpanch	Maharashtra
52	Mr. Maleshwari	Secretary, DCS	Telangana
53	Mr. K. Shivay	President, DCS	Telangana
54	Mr.J. Bharathang	Director, DCS	Telangana
55	Mr. S.Bikshapati	Director, DCS	Telangana
56	Mr. KothuriSammakka	Director, DCS	Telangana
57	Mr. KotteSoundarya	Director, DCS	Telangana
58	Mrs.SunchuKolavathi	Director, DCS	Telangana
59	Mrs. Hemawati	Director, DCS	Karnataka
60	Mr. Ramu. N	Committee Member, DCS	Karnataka
61	Mr. Parvathama	Committee Member, DCS	Karnataka
62	Mr. Sarojama	Committee Member, DCS	Karnataka
63	Mr. M. Vasanthi	Committee Member, DCS	Karnataka

b. List of Scheduled Tribe (ST) Functionaries/Stakeholders

Sl. No.	Name	Designation	State
1	Mr. Shyam Singh	Secretary, DCS	Jharkhand
2	Mrs. Sunita Devi	Secretary, DCS	Jharkhand
3	Mr. Bimlesh Kr. Gond	Secretary, BMC	Jharkhand
4	Mr.Kamlesh Kr. Singh	BMC Operator	Jharkhand
5	Mr. Amar Lakra	Secretary, DCS	Jharkhand
6	Mr. SoharaiMunda	Secretary, DCS	Jharkhand
7	Mr. GautamBarihar	President, DCS	Chhattisgarh
8	Mr. Dinesh Sidar	Committee Member, DCS	Chhattisgarh
9	Mr. Surendra Singh	Panchayat Member	Chhattisgarh
10	Mr. Rohit Kumar	Committee Member, DCS	Chhattisgarh
11	Mr. RamanandDewan	Committee Member, DCS	Chhattisgarh
12	Mr. UjaliSidaar	Committee Member, DCS	Chhattisgarh
13	Mrs. Laxmi Pradhan	Committee Member, DCS	Odisha
14	Mrs. SunitaBhoi	Committee Member, DCS	Odisha
15	Mrs. Kshyema Nidhi Danta	Committee Member, DCS	Odisha
16	Mrs. Anjali Bhoi	Committee Member, DCS	Odisha
17	Mrs. JasodaBhoi	Committee Member, DCS	Odisha
18	Mr. Diwakarraut	Committee Member, DCS / ward member	Odisha
19	Mrs. SarswatiSardar,	Chairman, DCS	West Bengal
20	Mrs. Maya Devi Sardar	Secretary, DCS	West Bengal
21	Mrs. SarswatiMurmu	Secretary, WMPCS	West Bengal
22	Mrs. SarathiMurmu	Chairman, WMPCS	West Bengal
23	Mr. Amar Lakra	Secretary, DCS	Madhya Pradesh
24	Mr. BijayKalsi	Committee Member, DCS	Madhya Pradesh
25	Mr. SantoshMedha	Committee Member, DCS	Madhya Pradesh
26	Mr. KailashParti	Panchayat Member	Madhya Pradesh
27	Mr. Bhure Singh	Committee Member, DCS	Madhya Pradesh
28	Mr.Chait Ram	Committee Member, DCS	Madhya Pradesh
29	Mr. Raman Bhai	Sarpanch, Fatehpur GP	Gujarat
30	Mr. GametiNarsingBhai	Sarpanch, Bhakhra	Gujarat
31	Mr. Santa Ben	Chairman, DCS	Gujarat
32	Mr. MahendraBhai	Secretary, DCS	Gujarat
33	Mr. Laxmi Ben	Committee Member, DCS	Gujarat
34	Mr. Pardih Harish Bhai	MAIT	Gujarat
35	Mr. GopalLalMeena	BMC Operator	Rajasthan
36	Mr. RajgopalDhanka	Resource Person	Rajasthan
37	Mr. GopalLalMeena	BMC Operator	Rajasthan
38	Mr. MuraliLalMeena	BMC Secretary	Rajasthan
39	Mr. Shree Ram Meena	Local Resource Person	Rajasthan
40	Mr. HardwariGurjar	Secretary, DCS	Rajasthan
41	Mr. GulabKhanduKoli	Committee Member, DCS	Maharashtra
42	Mr. PravinShivram Salve	MAIT	Maharashtra
43	Mr. MarutiSankarKambre	Committee Member, DCS	Maharashtra
44	Mr. ChampanaYalapaSinde	Committee Member, DCS	Maharashtra
45	Mr. KailashLaxmanRandhir	Committee Member, DCS	Maharashtra
46	Mr. Nandarakantaram Sable	BMC in-charge	Maharashtra
47	Mrs. L. Sumalata	DCS, Secretary	Telangana
48	Mrs. Anusha	DCS, Secretary	Telangana
49	Mr. KathawatVarsi	Chairman, DCS	Telangana
50	Mr. MalothTharamma	Committee Member	Telangana
51	Mr. BanothDayakar	Committee Member	Telangana
52	Mrs.Mahadevi Nayaka	Vice-president, DCS	Karnataka
53	Mr. M. SubbaNaik	Committee Member, DCS	Karnataka

Sl. No.	Name	Designation	State
54	Mrs. Chikkama	President, DCS	Karnataka
55	Mr. Lakshmm	Committee Member	Karnataka
56	Mr. Eramma	Committee Member	Karnataka
57	Mrs. Sananayaka	Committee Member	Karnataka
58	Mrs. Sudha	Committee Member	Karnataka

c. List of Non-SC/ST Functionaries/Stakeholders

Sl. No.	Name	Designation	State
1	Mr.Shyam Singh	Secretary, DCS	Jharkhand
2	Mrs. Sunita Devi	Secretary, DCS	Jharkhand
3	Mr. Bimlesh Kr. Gond	Secretary, BMC	Jharkhand
4	Mr. Kamlesh Kr. Singh	BMC Operator	Jharkhand
5	Mr. Amar Lakra	Secretary, DCS	Jharkhand
6	Mr.SoharaiMunda	Secretary, DCS	Jharkhand
7	Mrs.LachuOraon	Secretary, DCS	Jharkhand
8	Mrs. Parwati Devi	Secretary, DCS	Jharkhand
9	Mr. Mukul Tayal	DMG	Chhattisgarh
10	Mr. GajanandGarudik	Manager Field Officer	Chhattisgarh
11	Mr. Tej Kumar Dewangan	Manager Field Officer	Chhattisgarh
12	Mr. Komal Patel	AVEO	Chhattisgarh
13	Mr. Gopal Patel.	Local Resource Person	Chhattisgarh
14	Mr. Om Prakash Sahoo	Secretary, DCS	Chhattisgarh
15	Mr. Yogesh Patel	Manager Field Officer	Chhattisgarh
16	Mr. Niruttam Patel	Manager Field Officer	Chhattisgarh
17	Mrs. MamtaMahapatro	Secretary, DCS	Odisha
18	Mr. Narayan Senapati	MAIT	Odisha
19	Mr. UgrasenPradhan	Field Supervisor, Team Leader	Odisha
20	Mrs. SavitaPradhaan	Lady Extension Officer	Odisha
21	Mrs. MadhuriSahu	MAIT	Odisha
22	Dr. Sanjib Kumar Satapathy	Manager	Odisha
23	Mrs. PushpitaPanigrahi	Lady Extension Officer	Odisha
24	Mr. MunnaPradhan	MAIT	Odisha
25	Mr. BishwanathMandal	Supervisor	West Bengal
26	Mr. MirtyunjaiMandal	MAIT	West Bengal
27	Mr. Bhabesh Chandra Das Bairagya	MAIT	West Bengal
28	Mr. Narayan Chandra Ghosh	Milk Procurement & Extension Officer	West Bengal
29	Mr. Amar Nath Prasad	Fodder Development Officer	West Bengal
30	Mrs. MousmiPatro	Secretary, DCS	West Bengal
31	Mr. Malay Pathak	Secretary, DCS	West Bengal
32	Mrs. JanushreeGorai	Field Officer	West Bengal
33	Mr. Ashok NathSahdeo	Secretary, DCS	Madhya Pradesh
34	Mrs. Chandradeep	Secretary, DCS	Madhya Pradesh
35	Mrs. Kamini Sharma	Lady Extension Officer	Madhya Pradesh
36	Mr. Subash Chandra	President, DCS	Madhya Pradesh
37	Mr. Gopal Patel	MAIT	Madhya Pradesh
38	Mr. Rohit Gaur	MAIT	Madhya Pradesh
39	Mr.WamanRaoPotfode	Secretary, DCS	Madhya Pradesh
40	Ms. LeenaPadro	Lady Extension Officer	Madhya Pradesh
41	Dr. M. V. Gajera	Monitoring Officer	Gujarat
42	Mr. Alpesh Patel	Superintendent	Gujarat
43	Mr. Harish N. Solanki	Superintendent	Gujarat
44	Mr. Dr. J. K. Patel	(Monitoring Officer	Gujarat
45	Mr. Ankit Patel	Superintendent	Gujarat
46	Mr. RawariGoverBhai	Secretary, DCS	Gujarat
47	Mr. JawanBhai	Secretary, DCS	Gujarat
48	Dr. P. B. Patel	Veterinary Officer	Gujarat
49	Mr. Ashok Kr. Trivedi	Local Resource Person	Rajasthan
50	Mr. KailshChoudra	Local Resource Person	Rajasthan
51	Mrs. Lalita Choudhary	Lady Extension Officer	Rajasthan
52	Mr. Pushpendra Singh Yadav	Livestock Assistance Officer	Rajasthan
53	Mr. Rajveer	Lady Extension Officer	Rajasthan

Sl. No.	Name	Designation	State
54	Mr. Mohan LalJaat	Secretary, BMC	Rajasthan
55	Mr. Rajendra Singh Kulhari	Technical Officer	Rajasthan
56	Dr. VimleshRathore	Veterinary Officer	Rajasthan
57	Mr. Khem Chand Sharma	Deputy Manager	Rajasthan
58	Mr. KhusalGaikwad	Asst. Commissioner, Social Welfare Dept	Maharashtra
59	Mr. KiranBhlterao Pawar	PRI member	Maharashtra
60	Mr. ShivajeeAtma Ram Patil	Secretary, DCS	Maharashtra
61	Mr. Gunjal Vijay Jagannath	Secretary, DCS	Maharashtra
62	Mr. A.K.Kondalkar.	Input Incharge	Maharashtra
63	Mr. Sandeep MarutiWadwekar	BMC Incharge	Maharashtra
64	Mr. KrishnatAmate	Milk Procurment Officer	Maharashtra
65	Mr. D.D.Patil	Senior Milk Procurement Officer	Maharashtra
66	Mrs. J.Swati	Fodder Officer	Telangana
67	Mr. P. Srikant	MAIT	Telangana
68	Mrs. P. Sreelata	Development Officer	Telangana
69	Mrs. Sandhya Rani	Secretary, DCS	Telangana
70	Mr. E.U. Mowgli	MAIT	Telangana
71	Dr. Chandra Mohan	Technical Officer	Telangana
72	Mr. J.Ramesh Kumar	Manager	Telangana
73	Mr. M. Bhaskar Reddy	General Manager	Telangana
74	Mrs. Janet Rosario	Lady Extension officer	Karnataka
75	Dr. SannathammeGowda	Deputy Manager	Karnataka
76	Mr.Vishwanath	Agricultural officer	Karnataka
77	Dr. RavirajUdgeah	Deputy Manager	Karnataka
78	Mrs. Shruthi T.K	Assistant manager	Karnataka
79	Mr. Mahadevi M.J.	Lady Extension officer	Karnataka
80	Dr. N. Kumar (Deputy Manager),	Deputy Manager	Karnataka
81	Mr.Narayana	DCS, Director	Karnataka

Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP -1

NDP-1

Structured Interview Schedule: Beneficiary Household
:
A. General Background of the Households

A. परिवारों की सामान्य पृष्ठभूमि

Section 1: General Information /   1:

1.1.	Schedule No. (To be used by the Data Analyst) . (तथ्य विश्लेषक के इस्तेमाल हेतु)			
1.2.	Name of Village		1.3.	Name of Gram Panchayat	
1.4.	Name of Block		1.5.	Name of District	
1.6.	Name of State		1.7.	Name of End Implementing Agency (EIA) / (EIA)	

Section 2: Identification of the Household

2 : परिवार की पहचान

2.1. a.	Name of the Beneficiary	
b.	Name of the Respondent	
c.	Respondents relation with beneficiary उत्तरदाता का लाभार्थी से सम्बन्ध	
2.2	Sex [Male -1; Female -2; Third Gender -3] [1= , 2= , 3=]	
2.3	Marital Status [Unmarried -1; Divorced -2; Widowed -3; Deserted -4; Married -5] -1; -2; / – 3; परित्यक्त- 4 ; - 5	
2.4	Religion [(Hindu-1; Muslim-2; Christian -3; Others -4 (Specify)] [(-1, -2, -3, -4(उल्लेख करें)]	
2.5	Caste Category (ST – 1; SC-2; OBC-3; General-4) (-1; -2; -3; -4)	
2.6	Specific Caste/Tribe (Indicate the local name) / ( )	
2.7	Type of Family (Joint-1*; Nuclear-2**) {* Includes husband, wife, parents, siblings, married or unmarried children and others ** Includes husband, wife and unmarried children only} परिवार का प्रकार (-1*; **) {* , , - , - , त या अविवाहित बच्चे एवं अन्य इसमें ; ** , पत्नी एवं अविवाहित बच्चे इसमें शामिल हैं}	

2.8	Do you have Ration Card? (Yes -1, No -2) क्या आपके पास राशन कार्ड है? (-1, -2)				
2.9	Do you come under Below Poverty Line (BPL) category? (Yes -1, No -2) क्या आप गरीबी रेखा से नीचे वर्ग के अन्दर आते हैं? (-1, -2)				
2.10	Total number of family members परिवार के सदस्यों की कुल संख्या	Male		Female	
2.11	No. of children below 6 years 6 साल से कम उम्र के बच्चों की संख्या	Male		Female	
2.12	No. of Earning members कमाई करने वाले सदस्यों की संख्या	Male		Female	
2.13	Main Source of Income of family (which contributes 51% or more annual income). Refer the code below मुख्य आय का स्रोत(51)( )				
2.14	Subsidiary Source of Income (Contributes less than 51% annual income). Refer the code below (51)(दिए गए कोड का इस्तेमाल करें)				

2.15 Educational Qualification of the family

i. No. of Illiterate Person अनपढ़ व्यक्तियों की संख्या		ii. No. of Primary Pass Person प्राथमिक उत्तीर्ण व्यक्तियों की संख्या	
Male	Female	Male	Female

iii. No. of Middle Pass Person मध्य उत्तीर्ण व्यक्तियों की संख्या		iv. No. of Secondary Pass Person माध्यमिक उत्तीर्ण व्यक्तियों की संख्या	
Male	Female	Male	Female

v. No. of Higher Secondary Pass Person उच्च माध्यमिक उत्तीर्ण व्यक्तियों की संख्या		vi. No. of Graduate Person स्नातक उत्तीर्ण व्यक्तियों की संख्या	
Male	Female	Male	Female

vii. No. of Post Graduate Person उत्तीर्ण व्यक्तियों की संख्या		viii. No. of Technical Pass Person (Specify) तकनीकी उत्तीर्ण व्यक्तियों की संख्या ( )	
Male	Female	Male	Female

ix. Others (Specify) ( )			
Male	Female		

Q. 2.13 & 2.14 - Agriculture -1; Private service -2; Contract job-3; Trading-4; Contractor-5; Grocery Shop -6; Agriculture labour -7; Non-agri Labour -8; Fishing -9; Selling firewood -10; Blacksmithy -11; Carpentary -12; Flour mill -13; Dhobi -14; Barber -15; Priest/Pujari -16; Mason -17; Bamboo work -18; Pressing oil -19; Sweeping and scavenging -20; Goldsmith -21; Plucking coconuts -22; Making puffed rice -23; Potter -24; Weavers -25; Green grocer -26; Tea and snacks shops -27; Betal shop -28; Tailoring -29; Public Sector service -30; Govt Service -31; Housewife/House keeping -32; Selling liquor -33; Dairy-34; ; Others(specify) -35; Nil-36

प्रश्न 2.13 & 2.14 -1; -2; -3; -4; -5; -6; -7; -8; -9; -10; -11; -12; -13; -14; -15; / -16; -17; -18; पेरने की प्रक्रिया -19; -20; -21; -22; -23; -24; -25; सब्जियों के विक्रेता -26; -27; -28; -29; सार्वजनिक क्षेत्र -30; -31; / -32; -33; -34; ( );-35; -36

Section 3: Particulars about the House / 3 –

3.1	Housing {Own house - 1; Rented - 2; Rent Free House of Relatives - 3; Others, if any - 4 (specify)}/ { -1; -2; रिश्तेदारों से -3; , -4 ( )}	
3.2	Type of house {Mud -1; Brick with mud -2; Bamboo or wood with mud plaster -3; Brick with cement -4; Any other (specify) -5} { -1; -2; -3; -4; ( )-5}	
3.3	Type of roof { Thatched -1; Asbestos -2; Tile -3; Concrete -4; Tin-5; Any other (specify) -6} / { -1; -2; / -3; कंक्रीट-4; -5; ( )-6}	

3.4 Aspects of Housing Condition:(Use Code: Yes -1; No -2; Not Applicable -3)
: (कोड का इस्तेमाल करें -1; -2; -3)

1. Electrification in the house ☐   2. Bathroom within house / homestead area / गृहस्थ क्षेत्र ☐

3. Toilet within or adjacent to house ☐   4. Utensil washing place within house आवास में बर्तन धोने की जगह ☐

5. Separate kitchen room ☐   6. Separate shed for animals ☐

3.5 Water facility:

S.N. क्र. .	Use of water	Source of water * *	Distance of water source** पानी के स्त्रोत की दूरी **	Sufficiency*** ***
1.	Drinking			
2.	Washing/Bathing /			
3.	Waterfor Cattle use			

* Own well -1; Public well -2; Own tube well -3; Public tube well -4; Piped water -5; River -6; Pond -7 Water tank- 8; Mobile water tank -9; Tubewell with motor- 10
*   -1;   -2;   -3 ;   -4 ;   -5 ;   - 6;   -7 ;
     -8 ;   – 9;   -10
** Within house -1; Less than 100 mtr -2; 100-500 mtr -3; 500 mtr -1 Km -4; Above 1 km - 5
**   -1; 100   - 2 ; 100-500   -3 ; 500   1   -4; 1   -5
*** Insufficient -1; Sufficient -2; More Than Sufficient -3
***   -1; पर्याप्त-2; पर्याप्त से अधिक-3

Section 4: Land Particulars / 4:

4.1 Is your household own land, other than homestead land (Use Code: Yes -1; No-2)
-          (कोड का इस्तेमाल करें हाँ-1; - 2)   ☐

4.2 If "Yes", fill the following section:
" ", तो निम्नलिखित खंड भरें:

Land Area in Acre / ( )			
Irrigated Land Area (in Acre) ( )		Un-irrigated Land Area (in Acre) असिंचित भूमि क्षेत्र ( )	Total Land Area (in Acre) कुल भूमि क्षेत्र ( )
Land Area (in Acre) A भूमि क्षेत्र ( ) A	Source of Irrigation B सिंचाई का स्त्रोत B	Land Area (in Acre) C भूमि क्षेत्र ( ) C	Total Land Area (A+C) कुल भूमि क्षेत्र (A+C)

4.3 Do you have non agricultural land (Use Code: Yes -1; No-2)

- (: -1, -2)

4.4 If "Yes", what is the area (Acre): ....

" ", ( ) :

Section 5: Livelihood Options / 5:

5.1 Earnings from various occupations (compare the occupation/earning condition before the membership and now or after the membership of Milk Cooperative Society).

(दुग्ध सहकारी समिति की सदस्यता से पहले या सदस्यता के बाद की स्थिति की तुलना करें).

Occupation Type व्यवसाय का प्रकार		Z*	Engagement (No. of Months in a Year) व्यस्तता का समय (व्यस्त महीनों की)		Average /Monthly Income (in Rs.) / ( )		Approx. Yearly Income (in Rs.) ( )	
			After Project Intervention	Before Project Intervention	After Project Intervention	Before Project Intervention	After Project Intervention	Before Project Intervention
Agriculture	Kharif Season (Rainy) ( )							
	Rabi Season (Winter) ( )							
	Zaid Season (Summer) ( )							
Daily Wage Labourers	Agr.							
	Non Agr.							
Govt. Service								
Public sector service								
Private service								
Contract Job								
Contractor								
Trading								

Grocery shop किराने की दुकान							
Dairy Farming							
Other Cattle & Livestock / Birds /							
Movable & Non Movable Family Assets -							
Non Timber Forest Produce (NTFPs**)							
Other type of Occupation*** (Specify) अन्य प्रकार के व्यवसाय ( )							

Z* = No. of Persons Involved Z* =कुल शामिल व्यक्तियों की संख्या

NTFPs** = Medicinal Plant, Ornamental Plant, Aromatic Plant, Bamboo, Fodder, Mushrooms, Fruits, Honey, Lac, Silk, Mahua, Chirongi, Karanj Seed, Biri Patta, Rubber, Gums, Resins, Tannins, Oils, Fibres etc

NTFPs**=   ,   ,   , , , , , , , , , ,
, , , , , , ,

Other Type of Occupation***
Fishing , Selling firewood, Blacksmithy, Carpentary, Flour mill, Dhobi, Barber, Priest/Pujari, Mason, Bamboo work, Pressing oil, Sweeping and scavenging, Goldsmith, Plucking coconuts, Making puffed rice, Potter, Weavers, Green grocer, Tea and snacks shops, Betal shop, Tailoring, Housewife/House keeping, Selling liquor, Rental income

अन्य प्रकार के व्यवसाय ***
मत्स्य ,   , , ,   , , ,   /   ,   ,   ,
पेरने की प्रक्रिया,   -   , ,   ,   ,   , ,   ,
की दुकानें,पा   ,   , सार्वजनिक क्षेत्र :   ,   ,   / गृह व्यवस्था,   ,

5.2 Other sources contributed for family sustenance:
अन्य स्रोतों से पारिवारिक जीविका में योगदान

Sl. No. क्र. .	Particulars	Any one contributed to family sustenance? yes=1, no=2, don't now= 3 क्या किसी ने पारिवारिक रोजी- ? =1, =2, =3		If yes, approx. amount obtained (in Rs.) , कितनी रकम प्राप्त हुई ( )	
		After Project Intervention	Before Project Intervention	After Project Intervention	Before Project Intervention

1	Assistance from relatives				
2	Poverty funds (State) ( )				
3	In kind aids from the government				
4	Aids/assistance from NGOs* स्वयंसेवी संस्थाओं से प्राप्त				
5	Pension (Old Age Pension, Widow Pension, Differently-abled Pension) etc. (वृद्धावस्था पेंशन, ,)				
6	Other (please specify) (उल्लेख करें)				

NGOs* = Non Government Organisations

Section 6 / 6
Technical Aspect: Social Inclusion & Empowerment of Population under NDP-1
: NDP-1 के तहत सामाजिक समावेश एवं जनसँख्या के सशक्तिकरण
Part 1: Access of Project Services, Assessment of Capacity Building Interventions, Challenges Faced and Benefit Accrued
1:        सेवाओं की   ,   में उपलब्धि का   ,

6.1 Access of Project Services [Compare the access to various services as follows: No access = **Nil**; **Low** = <25% access; **Average/Moderate** = 25-50% access; **High** = 50-75% access and **Very High** = >75% access]

परियोजना सेवाओं की पहुंच [निम्नानुसार विभिन्न सेवाओं तक पहुंच की तुलना करें:   =   ;   =25

; / = 25-50   ;   =50-75 प्रतिशत तक की पहुँच एवं बहुत

=75   ]

SL. No. क्र..	Question प्रश्न	Response				
		Nil (0)	Low (1)	Average (2)	High (3)	V. High (4)
1.	Do you have access to Fodder Development - Breeder seed? क्या आपकी पहुँच चारा विकास – ?					
2.	Do you have access to Fodder Development – Bunker Silo programme? - ?					
3.	Do you have access to Fodder Development – demonstration on mowers? - मशीन के प्रदर्शन तक है?					

4.	Do you have access to Fodder Development – straw densification plants? - ?					
5.	Do you have access to Ration Balancing Programme (RBP) – Training & Demonstration? - ?					
6.	Do you have access to Ration Balancing Programme (RBP) – Feeds? क्या आपकी पहुँच राशन संतुलन कार्यक्रम – ?					
7.	Do you have access to Bulk Milk Coolers (BMC)/Dairy Cooperative Society (DCS)? / ?					
8.	Do you have access to Automated Milk Collection Units (AMCUs)? क्या आपकी पहुँच स्वचालित दुग्ध संग्रहण ?					
9.	Do you have access to Data Processor and Milk Collection Units (DPMCU)? क्या आपकी पहुँच डेटा प्रोसेसर एवं दुग्ध ?					
10.	Do you have access to Milk Cans, Weighing and Testing Equipment? क्या आपकी पहुँच दूध के कनस्तर, परिक्षण ?					
11.	Do you have access to Artificial Insemination (AI) Delivery Services? क्या आपकी पहुँच कृत्रिम गर्भाधान वितरण ?					

6.2 Assessment of Capacity Building Interventions क्षमता निर्माण हस्तक्षेप का आकलन
[Compare the personal level capacity building through orientation, awareness and leadership trainings with respect to **a.** information gathering or understanding the information given; and **b.** ability to translate the information into daily practices.
व्यक्तिगत स्तर पर क्षमता निर्माण के माध्यम से , जागरूकता और नेतृत्व प्रशिक्षण
( ). जानकारी इक्कठा करना या प्रास जानकारी को समझना; ( ). दैनिक अभ्यास में प्रास जानकरी
का अनुवाद करने की क्षमता
No understanding or not practised = **Nil (N)**; Low understanding/practise **(L)** = <25%; Moderate/average understanding/practise **(M)** = 25-50%; High understanding/practise **(H)**= 50-75% and Very high understanding/practise **(VH)** = >75%].
समझ नहीं आया या प्रयोग नहीं = **(N)**; / **(L)** = <25%; /
/ **(M)** = 25-50%; / **(H)**= 50-75% एवं बहुत अच्छा समझ में आया/
(VH) = >75%].

SL. No. क्र. .	Question प्रश्न		Response प्रतिक्रिया				
			N (0)	L (1)	M (2)	H (3)	VH (4)
1.	FDP* – Breeder Seed चारा विकास कार्यक्रम* –	Understanding the Information given					
		Ability to practice ?					
2	FDP*- Cattle Feeding चारा विकास कार्यक्रम* –	Understanding the Information given					
		Ability to practice ?					
3.	FDP*- Cattle Care** चारा विकास कार्यक्रम* –	Understanding the Information given					
		Ability to practice ?					
4	Breeding and Calving interval प्रजनन एवं बच्चा बियाने की	Understanding the Information given दिए गए जानकारी की					
		Ability to practice ?					
5	Cattle Health & Disease management*** मवेशी स्वास्थ्य एवं रोग ***	Understanding the Information given दिए गए जानकारी की					
		Ability to practice क्या आप दिए गए ?					
6	Using milking utensils and assistances	Understanding the Information given दिए गए जानकारी की					
		Ability to practice / ?					

FDP* - Fodder Development Programme चारा विकास कार्यक्रम

Cattle Care** = Observationon heat occurrence, feeding (quantity & quality of forages, RBP), watering, milking, sanitation

** = मवेशी के गर्म होने की स्थिति पर विशेष ध्यान, (मात्रा और हरे चारे की गुणवत्ता, संतुलन कार्यक्रम), , -

Cattle Health & Disease Management*** = Ketosis (अम्लरक्तता), Acidosis ((अम्लरक्तता), Fatty Liver, Alkalosis (_____) etc. that cause disorders in eating behaviours (Acidosis - अम्लरक्तता, Lameness - _____) as well as affect secretory tissues (Mastitis - स्तनकीसूजन) etc.

6.3 Challenges Faced [Compare the barriers or challenges faced in adopting the following services: No problem/obstacle = **Nil(N)**; Low problem/obstacle = <25% **(L)** ; Moderate/average problem/obstacle = 25-50% **(M)**; High problem/obstacle = 50-75% **(H)** and Very high problem/obstacle = >75% **(VH)**]

[रुकावटों की तुलना करें जो निम्न सुविधाओं को अपनाने में देखी गयी है: कं / = **(N)**; / =<25% **(L)** ; / / = 25-50% **(M)**; / = 50-75% **(H)** / = >75% **(VH)**]

SL. No. क्र. .	Question प्रश्न		Response प्रतिक्रिया				
			N (0)	**L (1)**	**M (2)**	**H (3)**	**VH (4)**
1.	FDP* - Breeder Seed कार्यक्रम*-	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
2	FDP* - Cattle Feeding कार्यक्रम*	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
3.	FDP* - Cattle Care कार्यक्रम*	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
4	Breeding and Calving interval	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
5	Cattle Health & Disease Management मवेशी स्वास्थ्य एवं	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
6	Using milking	Traditional/social belief					

utensils & assistances	/						
	Lack of resources संसाधनों की कमी						
	Discrimination by BMC/DCS** /						

FDP* - Fodder Development Programme चारा विकास कार्यक्रम

BMC/DCS** - Bulk Milk Cooler; DCS – Dairy Cooperative Society   ;

6.4   **Benefit Accrued** [Compare the benefits accrued by the following services: No benefit = **(Nil)**; Low benefit = <25% (**Low**) ; Average/Moderate benefit = 25-50% (**Average**); High benefit = 50-75% (**High**) and Very high access benefit = >75% (**V. H**)].

[सेवाओं द्वारा अर्जित लाभ की तुलना करें:   = (   )**;**   = <25% (   );   /   = 25-50% (   );   = 50-75% (   )   = >75% (   )].

SL. No. क्र. .	Question प्रश्न	Response प्रतिक्रिया					How much monetary gain you had/year (Rs.) (रुपयों में)
		Nil (0)	Low (1)	Average (2)	High (3)	V.H (4)	
1.	Do you have benefit from Fodder Development - Breeder seed? क्या आप चारा विकास कार्यक्रम के तहत प्रजनित बीजों से लाभान्वित हुए?						
2.	Do you have benefit from Fodder Development – Bunker Silo programme? - लाभान्वित हुए?						
3.	Do you have benefit from Fodder Development – demonstration on mowers? - प्रदर्शन से लाभान्वित हुए?						
4.	Do you have benefit from Fodder Development – straw densification plants? विकास कार्यक्रम - ?						
5.	Do you have benefit from Ration Balancing Programme (RBP) in terms of milk production? क्या आप दुग्ध उत्पादन के मामले में चारा संतुलन कार्यक्रम- प्रशिक्षण एवं प्रदर्शन से लाभान्वित हुए?						
6.	Do you have benefit from Ration Balancing Programme (RBP) –						

	Feeds? क्या आप राशन संतुलन कार्यक्रम– ?						
7.	Do you have benefit from Bulk Milk Coolers (BMC)/Dairy Cooperative Society (DCS)? / ?						
8.	Do you have benefit from Automated Milk Collection Units AMCUs? क्या आप स्वचालित दुग्ध संग्रहण ?						
9.	Do you have benefit from Data Processor and Milk Collection Units (DPMCU)? क्या आप डेटा प्रोसेसर एवं दुग्ध संग्रहण इकाई से लाभान्वित हुए?						
10.	Do you have benefit from Milk Cans, Weighing and Testing Equipmentat DCS / BMC / AMCU / DPMCU? एवं परिक्षण उपकरण जो DCS / BMC / AMCU / DPMCU , ?						
11.	Do you have benefit from Artificial Insemination (AI) Delivery Services? क्या आप कृत्रिम गर्भाधान ?						

Section 6 / 6

Technical Aspect: Social Inclusion & Empowerment of Population under NDP-1

: **NDP-**1 सामाजिक समावेश और जनसंख्या के सशक्तिकरण

Part 2: Impact of Project Interventions on Social & Economic Empowerment & Quality of Life of Beneficiary Households

2: आर्थिक सशक्तिकरण और लाभार्थी परिवारों के जीवन

6.5 a. Impact of Project Intervention: Year of Association ---------------------

परियोजना शुरू होने का प्रभाव: ....

b. Social & Economic Empowerment & Quality of Life:/

[Compare the benefits accrued by the following socio-economic indicators: No benefit = **Nil (N)**; Low benefit = <25% (**L**) ; Moderate/Average benefit = 25-50% (**M**); High benefit = 50-75% (**H**) and Very high access benefit = >75% (**VH**)].

[-आर्थिक संकेतकों द्वारा अर्जित लाभ   :   =   **(N)**;   = <25% **(L)**
;   /   = 25-50% **(M)**;   = 50-75% **(H)**   = >75% **(VH)**].

Sl. No. क्र. .	Indicators	Particulars	After Project Intervention					Before Project Intervention परियोजना शुरू होने से पहले				
			N (0)	L (1)	M (2)	H (3)	V. H (4)	N (0)	L (1)	M (2)	H (3)	V. H (4)
1.	Education	Male persons educated										
		Female persons educated										
2.	Non formal Education	Status of Nonformal Education of Male पुरुषों में अनौपचारिक शिक्षा की										
		Status of Nonformal Education of Female महिलाओं में अनौपचारिक शिक्षा की स्थिति										
3.	Health स्वास्थ्य	Households generally go for Ojha/Baidh /										
		Households generally go for Quack -										
		Households generally go for Primary Health Centre प्राथमिक चिकित्सा केंद्र जाते है										
		Households generally go for Private Doctor										
4.	Food Sufficiency पर्याप्तता	Consume balanced food for 12 Months 12 की पर्याप्तता										
		Consume balanced food for 09 Months 09 की पर्याप्तता										
		Consume balanced food for 06 Months 06 की पर्याप्तता										
		Consume balanced food for 03 Months 03 की पर्याप्तता										

5.	Malnutri-tion	Malnourishment in Women															
		Malnourishment in Children बच्चों में कुपोषण															
6.	Social Empowerment	Involvement in decision making process of social issues सामाजिक मुद्दों की प्रक्रिया में शामिल होना															
		Greater opportunity in raising the voice on social issues सामाजिक मुद्दों पर आवाज															
		Reducing suppression from other people अन्य व्यक्तियों (प्रभावी लोगों) द्वारा दमनात्मक व्यवहार में कमी															
7.	Income Status	Total yearly income															
		Yearly income from dairy business डेयरी व्यवसाय से वार्षिक आय															
		Credit and indebtedness															
8.	Migration	Level of distress migration															

Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP-1

NDP-1

Structured Interview Schedule: Non-beneficiary Household

:   -

B. General Background of the Households

A. परिवारों की सामान्य पृष्ठभूमे

Section 1: General Information /   1:

1.1.	Schedule No. (To be used by the Data Analyst) . (तथ्य विश्लेषक के इस्तेमाल हेतु)		
1.2.	Name of Village	1.3.	Name of Gram Panchayat
1.4.	Name of Block	1.5.	Name of District
1.6.	Name of State	1.7.	Name of End Implementing Agency (EIA) अंतिम कार्यान्वयन एजेंसी का नाम (EIA)

Section 2: Identification of the Household

2 : परिवार की पहचान

2.1.	Name of the Non-beneficiary -	
	Name of the Respondent /	
	Respondents relation with Non-beneficiary -	
2.2	Sex [Male -1; Female -2; Third Gender -3] [1= , 2= , 3=]	
2.3	Marital Status [Unmarried -1; Divorced -2; Widowed -3; Deserted -4; Married -5]	
2.4	Religion [(Hindu-1; Muslim-2; Christian -3; Others -4 (Specify)] [(-1, -2, -3, -4(उल्लेख करें)]	

2.5	Caste Category (ST – 1; SC-2; OBC-3; General-4)
	   (-1; -2;
	   -3; सामान्य वर्ग-4)	

2.6	Specific Caste/Tribe (Indicate the local name) / ( )	
2.7	Type of Family (Joint-1*; Nuclear-2**) {* Includes husband, wife, parents, siblings, married or unmarried children and others ** Includes husband, wife and unmarried children only} परिवार का प्रकार (संयुक्त-1*;एकल**) {* पति,पत्नी,माता-पिता, भाई-बहन,विवाहित या अविवाहित बच्चे एवं अन्य इसमें शामिल हैं; ** पति, पत्नी एवं अविवाहित बच्चे इसमें शामिल हैं}	
2.8	Do you have Ration Card? (Yes -1, No -2) क्या आपके पास राशन कार्ड है? (-1, -2)	
2.9	Do you come under Below Poverty Line (BPL) category? (Yes -1, No -2) / क्या आप गरीबी रेखा से नीचे के वर्ग के अन्दर आते ? (-1, -2)	

2.10	Total number of family members परिवार के सदस्यों की कुल संख्या	Male		Female	
2.11	No. of children below 6 years 6 साल से कम उम्र के बच्चों की संख्या	Male		Female	
2.12	No. of Earning members सदस्यों की संख्या	Male		Female	
2.13	Main Source of Income of family (which contributes 51% or more annual income). Refer the code below / (51 प्रतिशत या उससे अधिक की भागीदारी)( )				
2.14	Subsidiary Source of Income (Contributes less than 51% annual income). Refer the code below (51)(नीचे दिए गए कोड का इस्तेमाल करें)				

2.15	Educational Qualification of the Family परिवार की शैक्षणिक योग्यता						
	i. No. of Illiterate Person / अनपढ़ व्यक्तियों की संख्या				ii. No. of Primary Pass Person / प्राथमिक उत्तीर्ण व्यक्तियों की संख्या			
	Male/		Male/		Male /		Female	
	iii. No. of Middle Pass Person मध्य उत्तीर्ण व्यक्तियों की संख्या				iv. No. of Secondary Pass Person माध्यमिक उत्तीर्ण व्यक्तियों की संख्या			
	Male		Male		Male		Female	
	v. No. of Higher Secondary Pass Person उच्च माध्यमिक उत्तीर्ण व्यक्तियों की संख्या				vi. No. of Graduate Person स्नातक उत्तीर्ण व्यक्तियों की संख्या			
	Male		Male		Male		Female	
	vii. No. of Post Graduate Person स्नातकोत्तर उत्तीर्ण व्यक्तियों की संख्या				viii. No. of Technical Pass Person (Specify) तकनीकी उत्तीर्ण व्यक्तियों की संख्या (उल्लेख करें)			
	Male		Male		Male		Female	
	ix. Others (Specify) (उल्लेख करें)						
	Male		Male		Male			

Q. 2.13 & 2.14 - Agriculture -1; Private service -2; Contract job-3; Trading-4; Contractor-5; Grocery Shop -6; Agriculture labour -7; Non-agri Labour -8; Fishing -9; Selling firewood -10; Blacksmithy -11; Carpentary -12; Flour mill -13; Dhobi -14; Barber -15; Priest/Pujari -16; Mason -17; Bamboo work -18; Pressing oil -19; Sweeping and scavenging -20; Goldsmith -21; Plucking coconuts -22; Making puffed rice -23; Potter -24; Weavers -25; Green grocer -26; Tea and snacks shops -27; Betal shop -28; Tailoring -29; Public Sector service -30; Govt Service -31; Housewife/House keeping -32; Selling liquor -33; Dairy-34; Others(specify) -35; Nil-36

प्रश्न 2.13 & 2.14 -1; -2; -3; -4; -5; -6; -7; -8; -9; -10; -11; -12; -13; -14; -15; / -16; -17; -18; प्रक्रिया -19; - -20; -21; -22; -23; -24; -25; हरी सब्जियों के विक्रेता -26; की दुकानें -27; -28; -29; सार्वजनिक क्षेत्र -30; -31; / गृह व्यवस्था -32; -33; -34; (उल्लेख करें);-35; -36

Section 3: Particulars about the House / 3 –

3.1	Housing {Own house - 1; Rented - 2; Rent Free House of Relatives - 3; Others, if any - 4 (specify)} { -1; -2; रिश्तेदारों से किराया मुक्त आवास-3; , -4 ( )}	
3.2	Type of house {Mud -1; Brick with mud -2; Bamboo or wood with mud plaster -3; Brick with cement -4; Any other (specify) -5} { -1;मिट्टी और ईंट-2;	

	प्लास्टर-3; सीमेंट और ईंट-4; ( )-5}	
3.3	Type of roof { Thatched -1; Asbestos -2; Tile -3; Concrete -4; Tin-5; Any other (specify) -6} { -1; एस्बेस्टस-2; / -3; कंक्रीट-4; -5; ( )-6}	

3.4 Aspects of Housing Condition:(Use Code: Yes -1; No -2; Not Applicable -3) / आवास की स्थिति के अवयव:
(: -1; -2; -3)

1. Electrification in the house ☐   2. Bathroom within house / homestead area ☐
                                                         / गृहस्थ क्षेत्र

3. Toilet within or adjacent to house ☐   4. Utensil washing place within house ☐
                                                         आवास में बर्तन धोने की जगह

5. Separate kitchen room ☐   6. Separate shed for animals ☐

3.5 Water facility:

S.N. क्र. .	Use of water	Source of water * *	Distance of water source** **	Sufficiency*** पर्याप्तता ***
1.	Drinking			
2.	Washing/Bathing /			
3.	Waterfor Cattle use			

* Own well -1; Public well -2; Own tube well -3; Public tube well -4; Piped water -5; River -6; Pond -7 Water tank- 8; Mobile water tank -9; Tubewell with motor-10
* -1; -2; -3 ; -4 ; -5 ; - 6; -7 ; -8 ; – 9; -10
** Within house -1; Less than 100 mtr -2; 100-500 mtr -3; 500 mtr -1 Km -4; Above 1 km - 5
** -1; 100 - 2 ; 100-500 -3 ; 500 1 -4; 1 -5
*** Insufficient -1; Sufficient -2; More Than Sufficient -3
***अपर्याप्त-1; पर्याप्त-2; पर्याप्त से अधिक-3

Section 4: Land Particulars / 4:

4.1 Is your household own land, other than homestead land (Use Code: Yes -1; No-2) ☐
          -आँगन के अतिरिक्त अन्य ज़मीन है (कोड का इस्तेमाल करें हाँ-1; - 2
4.2 If "Yes", fill the following section:
      " ", तो निम्नलिखित खंड भरें:

Land Area in Acre ( )			
Irrigated Land Area (in Acre) / ( )		Un-irrigated Land Area (in Acre) असिंचित भूमि क्षेत्र ( )	Total Land Area (in Acre) कुल भूमि क्षेत्र ( )
Land Area (in Acre) A भूमि क्षेत्र ( ) A	Source of Irrigation B सिंचाई का स्रोत B	Land Area (in Acre) C भूमि क्षेत्र ( ) C	Total Land Area (A+C) कुल भूमि क्षेत्र (A+C)

4.3 Do you have non agricultural land (Use Code: Yes -1; No-2)

- (: -1, -2)

4.4 If "Yes", what is the area (Acre):

" ", ( ) :

Section 5: Livelihood Options / 5:

5.1 Earnings from various occupations (compare the occupation/earning condition before the year 2015 and now at present).

व्यवसायों से (2015)

Occupation Type व्यवसाय का प्रकार		Z*	Engagement (No. of Months in a Year) व्यस्तता का समय (व्यस्त महीनों की)		Average /Monthly Income (in Rs.) / (रुपयों में)		Approx. Yearly Income (in Rs.) (रुपयों में)	
			At Present	Before 2015 2015	At Present	Before 2015 2015	At Present	Before 2015 2015
Agriculture	Kharif Season (Rainy) ( )							
	Rabi Season (Winter) ( )							
	Zaid Season (Summer) ( )							
Daily Wage Labourers	Agr.							
	Non Agr.							
Govt. Service								
Public sector service								
Private service								
Contract Job								
Contractor								
Trading								
Grocery shop किराने की दुकान								
Dairy Farming								
Other Cattle & Livestock / Birds /								
Movable & Non Movable Family Assets -								

Non Timber Forest Produce (NTFPs**)						
Other type of Occupation*** (Specify) अन्य प्रकार के व्यवसाय (उल्लेख करें)						

Z* = No. of Persons Involved Z* =कुल शामिल व्यक्तियों की संख्या

NTFPs ** = Medicinal Plant, Ornamental Plant, Aromatic Plant, Bamboo, Fodder, Mushrooms, Fruits, Honey, Lac, Silk, Mahua, Chirongi, Karanj Seed, Biri Patta, Rubber, Gums, Resins, Tannins, Oils, Fibres etc.

NTFPs**=   ,   ,   ,   ,   ,   ,   ,   ,   ,   ,   ,
              ,   ,   ,   ,   ,   ,   ,

Other Type of Occupation***
Fishing , Selling firewood, Blacksmithy, Carpentary, Flour mill, Dhobi, Barber, Priest/Pujari, Mason, Bamboo work, Pressing oil, Sweeping and scavenging, Goldsmith, Plucking coconuts, Making puffed rice, Potter, Weavers, Green grocer, Tea and snacks shops, Betal shop, Tailoring, Housewife/House keeping, Selling liquor, Rental income
अन्य प्रकार के व्यवसाय ***
मत्स्य पालन,   ,   ,   ,   ,   ,   ,   /   ,   ,   ,   ,
पेरने की प्रक्रिया,   -   ,   ,   ,   ,   ,   ,   ,   ,
की दुकानें,पा   ,   ,सार्वजनिक क्षेत्र :   ,   ,   / गृह व्यवस्था,   ,

5.2 Other sources contributed for family sustenance:
अन्य स्रोतों से पारिवारिक जीविका में योगदान

Sl. No. क्र. .	Particulars	Any one contributed to family sustenance? yes=1, no=2, don't now=3 क्या किसी ने पारिवारिक रोजी- ? =1, =2, =3		If yes, approx. amount obtained (in Rs.) , (रुपयों में)	
		At Present वर्तमान समयमें	Before 2015 2015	At Present	Before 2015 2015
1	Assistance from relatives				
2	Poverty funds (State) ( )				
3	In kind aids from the government				
4	Aids/assistance from NGOs* / स्वयंसेवी संस्थाओं से प्राप्त				
5	Pension (Old Age Pension, Widow Pension, Differently- abled Pension) etc./ (वृद्धावस्था पेंशन,वि पेंशन, दिव्यांग पेंशन)				
6	Other (please specify) (उल्लेख करें)				

NGOs* = NonGovernment Organisations

Section 6 / 6

Technical Aspect: Social Inclusion & Empowerment of Population under NDP-1 / : NDP-1

Part 1: Access of Project Services, Assessment of Capacity Building Interventions, Challenges Faced and Benefit Accrued / 1: परियोजना सेवाओं की , में उपलब्धि का ,

6.1 Access of Project Services [Compare the access to various services as follows: No access = **Nil**; **Low** = <25% access; **Average/Moderate** = 25-50% access; **High** = 50-75% access and **V. High** = >75% access]

परियोजना सेवाओं की पहुंच [निम्नानुसार विभिन्न सेवाओं तक पहुंच की तुलना करें: = ; =25
; / = 25-50 ; =50-75 प्रतिशत तक की पहुँच एवं
=75]

SL. No. क्र.	Question प्रश्न	Response प्रतिक्रिया				
		Nil (0)	Low (1)	Average (2)	High (3)	V. High (4)
1.	Do you have access to Fodder Development - Breeder seed from any where? / आपकी पहुँच चारा विकास – ?					
2.	Do you have access to Fodder Development – Bunker Silo programme from any where? / कहीं से भी आपकी पहुँच - सिलो कार्यक्रम तक है?					
3.	Do you have access to Fodder Development – demonstration on mowers from any where? / कहीं से भी आपकी पहुँच चारा विकास- काटने के मशीन के प्रदर्शन तक है?					
4.	Do you have access to Fodder Development – straw densification plants from any where? / कहीं से भी आपकी पहुँच चारा विकास- घनत्व बढ़ाने की मशीन है?					
5.	Do you have access to Ration Balancing Programme (RBP) – Training & Demonstration from any where? / क्या कहीं से भी आपकी पहुँच - प्रशिक्षण एवं प्रदर्शन तक है?					
6.	Do you have access to Ration Balancing Programme (RBP) – Feeds from any where? / क्या कहीं से भी आपकी पहुँच राशन संतुलन कार्यक्रम – चारा तक है?					
7.	Do you have access to Bulk Milk Coolers (BMC)/Dairy Cooperative Society (DCS) from any where? / क्या कहीं से भी आपकी पहुँच थोक / ?					
8.	Do you have access to Automated Milk Collection Units (AMCUs) from any where? / कहीं से भी आपकी पहुँच स्वचालित दुग्ध ?					
9.	Do you have access to Data Processor and Milk Collection Units (DPMCU) from any where?/ कहीं से भी आपकी पहुँच डेटा प्रोसेसर एवं दुग्ध ?					
10.	Do you have access to Milk Cans, Weighing and Testing Equipment from any where? / क्या कहीं से भी आपकी पहुँच दूध के कनस्तर,					

	पारेक्षण उपकरण तक है?					
11.	Do you have access to Artificial Insemination (AI) Delivery Services from any where? / कहीँ से भी आपकी पहुँच कृत्रिम गर्भाधान ?					

6.2 Assessment of Capacity Building Interventions   क्षमता निर्माण हस्तक्षेप का आकलन

[Compare the personal level capacity building through orientation, awareness and leadership trainings with respect to **a.** information gathering or understanding the information given; and **b.** ability to translate the information into daily practices. / व्यक्तिगत स्तर पर क्षमता निर्माण के माध्यम से   ,

प्रशिक्षण की इन निम्नलिखित संबंधों के माध्यम से तुलना करें ( ).जानकारी इक्कठा करना या प्राप्त जानकारी को समझना;

( ). दैनिक अभ्यास में प्राप्त जानकरी का अनुवाद करने की क्षमता

No access of orientation, awareness and leadership trainings = **(Nil)**; No understanding or not practised = **(N)**; Low understanding / practise **(L)** = <25%; Moderate/average understanding/practise **(M)** = 25-75%; High understanding/practise **(H)** = >75%].

, जागरूकता और नेतृत्व प्रशिक्षण की कोई   =   **(Nil)**; समझ नहीं आया या प्रयोग नहीं किया=

(N);   /   **(L)** = <25%;   /   /   **(M)** = 25-75%;

/प्रयोग किया**(H)** = >75%].

SL. No. क्र. .	Question प्रश्न		Response प्रतिक्रिया				
			Nil (0)	N (1)	L (2)	M (3)	H (4)
1.	FDP* – Breeder Seed चारा विकास कार्यक्रम* –	Understanding the Information given /					
		Ability to practice ?					
2	FDP*- Cattle Feeding चारा विकास कार्यक्रम* –	Understandingthe Information given दिए गए जानकारी की					
		Ability to practice ?					
3.	FDP*- Cattle Care** * –	Understanding the Information given दिए गए जानकारी की					
		Ability to practice ?					
4	Breeding and Calving interval प्रजनन एवं बच्चा बियाने की	Understanding the Information given दिए गए जानकारी की					
		Ability to practice ?					

5	Cattle Health & Disease Management*** मवेशी स्वास्थ्य एवं रोग ***	Understanding the Information given					
		Ability to practice ?					
6	Using milking utensils and assistances दूध दुहने के बर्तन एवं अन्य	Understanding the Information given					
		Ability to practice ?					

FDP* - Fodder Development Programme चारा विकास कार्यक्रम

Cattle Care** = Observationon heat occurrence, feeding (quantity & quality of forages, RBP), watering, milking, sanitation

** = मवेशी के गर्म होने की स्थिति पर विशेष ध्यान, (मात्रा और हरे चारे की गुणवत्ता, संतुलन कार्यक्रम), ,   -

Cattle Health & Disease Management*** = Ketosis (अम्लरक्तता), Acidosis ((अम्लरक्तता), Fatty Liver, Alkalosis (_____) etc. that cause disorders in eating behaviours (Acidosis -अम्लरक्तता, Lameness - _____) as well as affect secretory tissues (Mastitis - स्तनकीसूजन) etc.

6.3 Challenges Faced [Compare the barriers or challenges faced in adopting the following services: Not availing the services hence problem/obstacle = **(NA)**; No problem/obstacle = **Nil(N)**; Low problem/obstacle = <25% **(L)** ; Moderate/average problem/obstacle = 25-75% **(M)**; High problem/obstacle = >75% **(H)**

[चुनौतियों और रुकावटों की तुलना करें जो निम्न सुविधाओं को अपनाने में देखी गयी है:
/ = **(NA)**; / = **(N)**;
/ =<25% **(L)** ; / / = 25-75% **(M)**; बहुत अधिक समस्या/ = >75% **(VH)**]

SL. No. क्र. .	Question प्रश्न		Response प्रतिक्रिया				
			NA (0)	N (1)	L (2)	M (3)	H (4)
1.	FDP* - Breeder Seed कार्यक्रम*-	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
2	FDP* - Cattle Feeding कार्यक्रम*	Traditional/social belief /					
		Lack of resources संसाधनों की					
		Discrimination by BMC/DCS** /					
3.	FDP* - Cattle Care कार्यक्रम*	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS**					

4	Breeding and Calving interval	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
5	Cattle Health & Disease Management मुवेशी स्वास्थ्य एवं	Traditional/social belief /					
		Lack of resources					
		Discrimination by BMC/DCS** /					
6	Using milking utensils & assistances	Traditional/social belief /					
		Lack of resources संसाधनों की कमी					
		Discrimination by BMC/DCS** /					

FDP* - Fodder Development Programme चारा विकास कार्यक्रम

BMC/DCS** - Bulk Milk Cooler; DCS – Dairy Cooperative Society   ;

6.4 Benefit Accrued [Compare the benefits accrued by the following services: No benefit = **(Nil)**; Low benefit = <25% **(Low)**; Average/Moderate benefit = 25-50% **(Average)**; High benefit = 50-75% **(High)** and Very high access benefit = >75% **(V. H)**].

[गए सेवाओं द्वारा अर्जित लाभ की तुलना करें:   = (   );   = <25% (   );   /   = 25-50% (   );   = 50-75% (   )   = >75% (   )].

SL. No. क्र. .	Question प्रश्न	Response प्रतिक्रिया					How much monetary gain you had/year (Rs.) (रुपयों में)
		Nil (0)	Low (1)	Average (2)	High (3)	V.H (4)	
1.	Do you have benefit from Fodder Development - Breeder seedfrom any where? / विकास कार्यक्रम के तहत प्रजानेत बीजों से लाभान्वित हुए?						
2.	Do you have benefit from Fodder Development – Bunker Silo programme from any where? / - सिलो कार्यक्रम से लाभान्वित हुए?						
3.	Do you have benefit from Fodder Development – demonstration on mowers from any where? / ाप चारा विकास कार्यक्रम के - घास काटने के मशीन के प्रदर्शन						

	?						
4.	Do you have benefit from Fodder Development – straw densification plants from any where? / प चारा विकास कायेक्रम के - पुआल घनत्व की मशीन से ?						
5.	Do you have benefit from Ration Balancing Programme (RBP) in terms of milk production from any where? / मामले में चारा संतुलन कायेक्रम-प्रशिक्षण एवं प्रदर्शन से लाभान्वित ?						
6.	Do you have benefit from Ration Balancing Programme (RBP) – Feeds from any where? / – ?						
7.	Do you have benefit from Bulk Milk Coolers (BMC)/Dairy Cooperative Society (DCS) from any where? / / ?						
8.	Do you have benefit from Automated Milk Collection Units AMCUs from any where? / लाभान्वित हुए?						
9.	Do you have benefit from Data Processor and Milk Collection Units (DPMCU) from any where? / संग्रहण इकाई से लाभान्वित हुए?						
10.	Do you have benefit from Milk Cans, Weighing and Testing Equipmentat DCS / BMC / AMCU / DPMCU from any where? / , DCS / BMC / AMCU / DPMCU में उपलब्ध हैं, लाभान्वित हुए?						
11.	Do you have benefit from Artificial Insemination (AI) Delivery Services from any where? / आप कृत्रिम गर्भाधान वितरण सेवाओं ?						

Technical Aspect: Social Inclusion & Empowerment of Population under NDP-1

: **NDP**-1   सामाजिक समावेश और जनसंख्या के सशक्तिकरण

Part 2:   Social & Economic Empowerment & Quality of Life of Non-beneficiary Households

2: NDP-1   -   की गुणवत्ता :

6.5 Social & Economic Empowerment & Quality of Life:/

[Compare the changes accrued by the following socio-economic indicators: No changes = **Nil (N)**; Low change = <25% **(L)** ; Moderate/Average change = 25-50% **(M)**; High change = 50-75% **(H)** and Very high change = >75% **(VH)**].

[-आर्थिक संकेतकों द्वारा अर्जित लाभ   :   =   **(N)**;   = <25%
(L) ;   /   = 25-50% **(M)**;   = 50-75% **(H)**   = >75% **(VH)**].

Sl. No. क्र.	Indicators	Particulars	At Present वर्तमान समय में					Before 2015 2015				
			N (0)	L (1)	M (2)	H (3)	V. H (4)	N (0)	L (1)	M (2)	H (3)	V. H (4)
1.	Education	Male persons educated शिक्षित पुरुष										
		Female persons educated										
2.	Non formal Education	Status of Nonformal Education of Male पुरुषों में अनौपचारिक शिक्षा की										
		Status of Nonformal Education of Female महिलाओं में अनौपचारिक शिक्षा की स्थिति										
3.	Health स्वास्थ्य	Households generally go for Ojha/Baidh /										
		Households generally go for Quack -										
		Households generally go for Primary Health Centre प्राथमिक चिकित्सा केंद्र जाते है										
		Households generally go for Private Doctor परिवार जो आमतौर पर प्राइवेट										
4.	Food Sufficiency पर्याप्तता	Consume balanced food for 12 Months 12 की पर्याप्तता										
		Consume balanced food for										

#													
		09 Months 09 की पयोसता											
		Consume balanced food for 06 Months 06 की पयोसता											
		Consume balanced food for 03 Months 03 की पयोसता											
5.	Malnutrition	Malnourishment in Women											
		Malnourishment in Children बच्चों में कुपोषण											
6.	Social Empowerment	Involvement in decision making process of social issues सामाजिक मुद्दों पर निर्णय की प्रक्रिया में शामिल होना											
		Greater opportunity in raising the voice on social issues सामाजिक मुद्दों पर आवाज											
		Reducing suppression from other people अन्य व्यक्तियों (प्रभावी लोगों) द्वारा दमनात्मक व्यवहार में कमी											
7.	Income Status	Total yearly income											
		Yearly income from dairy business डेयरी व्यवसाय से वार्षिक आय											
		Credit and indebtedness											
8.	Migration	Level of distress migration											

Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP-1

NDP-1

Interview Schedule for BMC/DCS Employees & Grievance Redressal Officer

BMC/DCS कमर्चारियों और शिकायत निवारण अधिकारी के लिए साक्षात्कार

1) a.Name of the Respondent   :

   b. Designation(   ):

   c. Organization/Office/NGO (/   /   ):

2) a. State (   ) :

   b. Name of the EIA (EIA   ):

3) District (   ) :

4) Village (   ) :

5) a. How was the SC/ST milk producers mobilized in your area/ BMC/DCS?
   आपके क्षेत्र/BMC/DCS   /जनजाति दुग्ध उत्पादकों को कैसे जुटाया/   ?

   b. What is the proportion of their participation in dairy farming compare to other castes groups and how many of them become members of the BMC/DCS?
   डेयरी उद्योग में अन्य जातियों की तुलना में अनुसूचि   /जनजाति लाभार्थियों की भागीदारी कितनी है और इनमें BMC/DCS   ?

6) a. What are the cultural belief and practices of SC and ST that discourage them to take part in dairy farming?
   /जनजाति की ऐसी कौन सी सांस्कृतिक मान्यताएँ और प्रथाएँ हैं जो उन्हें डेयरी उद्योग में भाग लेने से
          ?

   b. What kind of role local social institution has played in promoting dairy farming among   SC/ST?
   /जनजाति के बीच डेयरी उद्योग को बढ़ावा देने में स्थानीय सामाजिक संस्थाओं ने किस तरह की
         ?

7) Did exogenous factors like education, exposure to modern life, close relation with govt institutions, have increased SC/ST participation in dairy farming? If so How?
   क्या बाहरी कारक जैसे शिक्षा,
   उद्योग में अनुसूचित जाति/जनजाति की भागीदारी में वृद्धि हुई है?   ,   ?

8) What are the project services offered to SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

आपके जिला या इकाई में परियोजना से सम्बंधित वे कौन से सेवाएँ है जो अनुसूचित जाति/
BMC/EIA   DCS   ? परियोजना सम्बंधित सेवाओं हेतु कदम किस प्रकार उठाए गए हैं?
परियोजना सम्बंधित सेवाओं हेतु उठाये गए कदम अनुसूचित जाति/   ?

9) What and how are the capacity building interventions being taken for SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

                    BMC/EIA   DCS   /जनजाति के क्षमता निर्माण हेतु कौन कौन से कदम
         ? क्षमता निर्माण हेतु कदम किस प्रकार उठाए गए हैं ? क्या क्षमता निर्माण हेतु उठाए गए कदम अनुसूचित
/जनजाति आबादी के अनुरूप हैं?

10) What are the barriers/obstacles/constraints faced by SC and ST in joining EIA/DCS in your area and also in receiving various services like supply of breeds, fodder, animal health management, access to finances, technical knowledge, access to market and govt support, etc.?

               EIA/DCS से जुड़ने के लिए परियोजना सेवाएँ जैसे नस्ल एवं चारा आपूर्ति,   स्थ्य प्रबंधन,
          ,तकनीकी ज्ञान, बाज़ार तक पहुँच एवं सरकारी सहयोग आदि को प्राप्त करने के लिए अनुसूचित जाति/
किन किन अवरोधों,   ?

11). How the above-mentioned barriers/obstacles could be removed or addressed? What actions are taken in your BMC/EIA/DCS? How these actions were taken?

उपर्युक्त बताये गए अवरोधों/बाधाओं का किस प्रकार समाधान किया गया? BMC/EIA/DCS
                    ?

12). What are the strategies undertaken to expand dairy activities for SC/ST in the villages? How much support was provided by NDDB and other authorities(SC/ST Welfare Officers)?

गांवों में अनुसूचित जाति/
    ?NDDB एवं अन्य अधिकारियों द्वारा क्या क्या सहायता प्राप्त हुई?

13. What are the impacts of the following on SC/ST population?

          /जनजाति आबादी में निम्नलिखित के क्या प्रभाव हैं:

a) NDP-1

b) ITDP(Integrated Tribal Development Agency)

c) Other government schemes and programmes अन्य सरकारी योजनाएँ एवं कार्यक्रम

d) How convergence has been made between above three programmes?
उपर्युक्त बताये गए तीनों कार्यक्रमों के बीच समावेश कैसे बनाया गया?

14. What role like networking, partnership did civil society organizations take to promote dairy farming as livelihood option for SC/ST population?

/
नेटवर्क और भागीदारी की क्या भूमिका निभाई और कैसे?

15. How this project intervention has put impact on the socio - economic empowerment & quality of life of SCs and STs w.r.t. a. beneficiaries, b. project functionaries and c. management committee in dairy institutions? (Mention both positive and negative side)

/   -आर्थिक सशक्तिकरण और जीवन के गुणवत्ता पर इस परियोजना का कैसा
(a. डेयरी लाभार्थियों; b. परियोजना कार्यकर्ताओं; c.   )
और नकारात्मक दोनों पक्षों का उल्लेख करें

Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP-1

NDP-1

Interview Schedule for Local Resource Person /Lady Extension Officer/Mobile Artificial Insemination Technician

/ लेडी एक्सटेंशन ऑफिसर/ चलंत कृत्रिम गर्भाधान तकनीशियन के लिए साक्षात्कार प्रश्नावली

1) a.Name of the Respondent :

   b. Designation(   ):

   c. Organization/Office/NGO (/   /   ):

2) a. State (   ) :

   b. Name of the EIA (EIA   ):

3) District (   ) :

4) Village (   ) :

5) a. How was the SC/ST milk producers mobilized in your area/ BMC/DCS?
   /BMC/DCS   /जनजाति दुग्ध उत्पादकों को कैसे जुटाया/   ?

   b. What is the proportion of their participation in dairy farming compare to other castes groups and how many of them become members of the BMC/DCS?
   डेयरी उद्योग में अन्य जातियों की तुलना में अनुसूचित जाति/जनजाति लाभार्थियों की भागीदारी कितनी है और इनमें BMC/DCS   ?

6) a. What are the cultural belief and practices of SC and ST that discourage them to take part in dairy farming?
   /जनजाति की ऐसी कौन सी सांस्कृतिक मान्यताएँ और प्रथाएँ हैं जो उन्हें डेयरी उद्योग में भाग लेने से   ?

   b. What kind of role local social institution has played in promoting dairy farming among SC/ST?/   /जनजाति के बीच डेयरी उद्योग को बढ़ावा देने में स्थानीय सामाजिक संस्थाओं ने किस तरह   ?

7) Did exogenous factors like education, exposure to modern life, close relation with govt institutions, have increased SC/ST participation in dairy farming? If so How?

उद्योग में अनुसूचित जाति/   भागीदारी में वृद्धि हुई है?   ,   ?

8) What are the project services offered to SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

/
BMC/EIA   DCS   ? परियोजना सम्बंधित सेवाओं हेतु कदम किस प्रकार उठाए गए हैं? परियोजना सम्बंधित सेवाओं हेतु उठाये गए कदम अनुसूचित जाति/   ?

9) What and how are the capacity building interventions being taken for SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

BMC/EIA   DCS   /जनजाति के क्षमता निर्माण हेतु कौन कौन से कदम ? क्षमता निर्माण हेतु कदम किस प्रकार उठाए गए हैं ? क्या क्षमता निर्माण हेतु उठाए गए कदम अनुसूचित /जनजाति आबादी के अनुरूप हैं?

10) What are the barriers/obstacles/constraints faced by SC and ST in joining EIA/DCS in your area and also in receiving various services like supply of breeds, fodder, animal health management, access to finances, technical knowledge, access to market and govt support, etc.?

EIA/DCS   ,   ,
,तकनीकी ज्ञान, बाज़ार तक पहुँच एवं सरकारी सहयोग आदि को प्राप्त करने के लिए अनुसूचित जाति/ किन किन अवरोधों,   ?

11). How the above-mentioned barriers/obstacles could be removed or addressed? What actions are taken in your BMC/EIA/DCS? How these actions were taken?
उपर्युक्त बताये गए अवरोधों/बाधाओं का किस प्रकार समाधान किया गया? BMC/EIA/DCS
                   ?

12). What are the strategies undertaken to expand dairy activities for SC/ST in the villages? How much support was provided by NDDB and other authorities(SC/ST Welfare Officers)?
गांवों में अनुसूचित जाति/
?NDDB एवं अन्य अधिकारियों द्वारा क्या क्या सहायता प्राप्त हुई?

13. What are the impacts of the following on SC/ST population?
/जनजाति आबादी में निम्नलिखित के क्या प्रभाव हैं:

e) NDP-1

f) ITDP(Integrated Tribal Development Agency)

g)   Other government schemes and programmes अन्य सरकारी योजनाएँ एवं कार्यक्रम

h)   How convergence has been made between above three programmes?
उपर्युक्त बताये गए तीनों कार्यक्रमों के बीच समावेश कैसे बनाया गया?

14. What role like networking, partnership did civil society organizations take to promote dairy farming as livelihood option for SC/ST population?
/
ने नेटवर्क और भागीदारी की क्या भूमिका निभाई और कैसे?

15. How this project intervention has put impact on the socio - economic empowerment & quality of life of SCs and STs w.r.t. a. beneficiaries, b. project functionaries and c. management committee in dairy institutions? (Mention both positive and negative side).
/   -आर्थिक सशक्तिकरण और जीवन के गुणवत्ता पर इस परियोजना का कैसा
(a. डेयरी लाभार्थियों; b. परियोजना कार्यकर्ताओं; c.   )
और नकारात्मक दोनों पक्षों का उल्लेख करें

Social Inclusion and Empowerment of Scheduled Caste and Scheduled Tribe Population under NDP-1

NDP-1

Interview Schedule for Government Official (SC/ST Welfare Officers)/NGO Officials working in Dairy Sectors/PRI Representative

(/)/

संस्था के अधिकारी जो डेयरी क्षेत्र में कार्यरत है/

प्रतिनिधि के लिए साक्षात्कार प्रश्नावली

1) a. Name of the Respondent :

   b. Designation( ):

   c. Organization/Office/NGO (/ /):

2) a. State ( ) :

   b. Name of the EIA (EIA):

3) District ( ) :

4) Village ( ) :

5) a. How was the SC/ST milk producers mobilized in your area/ BMC/DCS?
   /BMC/DCS /जनजाति दुग्ध उत्पादकों को कैसे जुटाया/ ?

   b. What is the proportion of their participation in dairy farming compare to other castes groups and how many of them become members of the BMC/DCS?
   डेयरी उद्योग में अन्य जातियों की तुलना में अनुसूचित जाति/जनजाति लाभार्थियों की भागीदारी कितनी है और इनमें BMC/DCS ?

6) a. What are the cultural belief and practices of SC and ST that discourage them to take part in dairy farming?
   /जनजाति की ऐसी कौन सी सांस्कृतिक मान्यताएँ और प्रथाएँ हैं जो उन्हें डेयरी उद्योग में भाग लेने से ?

   b. What kind of role local social institution has played in promoting dairy farming among SC/ST?
   /जनजाति के बीच डेयरी उद्योग को बढ़ावा देने में स्थानीय सामाजिक संस्थाओं ने किस तरह की ?

7) Did exogenous factors like education, exposure to modern life, close relation with govt institutions, have increased SC/ST participation in dairy farming? If so How?
   क्या बाहरी कारक जैसे शिक्षा,
   उद्योग में अनुसूचित जा /जनजाति की भागीदारी में वृद्धि हुई है? , ?

8) What are the project services offered to SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

BMC/EIA   DCS   ? परियोजना सम्बंधित सेवाओं हेतु कदम किस प्रकार उठाए गए हैं? / परियोजना सम्बंधित सेवाओं हेतु उठाये गए कदम अनुसूचित जाति/   ,रूप हैं?

9) What and how are the capacity building interventions being taken for SC and ST communities through the BMC/EIA or DCS in your district or unit? How they are administered? Is the process people friendly?

BMC/EIA   DCS   /जनजाति के क्षमता निर्माण हेतु कौन कौन से कदम ? क्षमता निर्माण हेतु कदम किस प्रकार उठाए गए हैं ? क्या क्षमता निर्माण हेतु उठाए गए कदम अनुसूचित /   ?

10) What are the barriers/obstacles/constraints faced by SC and ST in joining EIA/DCS in your area and also in receiving various services like supply of breeds, fodder, animal health management, access to finances, technical knowledge, access to market and govt support, etc.?

EIA/DCS   के लिए परियोजना सेवाएँ जैसे नस्ल एवं चारा आपूर्ति,   , ,तकनीकी ज्ञान, बाज़ार तक पहुँच एवं सरकारी सहयोग आदि को प्राप्त करने के लिए अनुसूचित जाति/ किन किन अवरोधों,   ?

11). How the above-mentioned barriers/obstacles could be removed or addressed? What actions are taken in your BMC/EIA/DCS? How these actions were taken?

उपर्युक्त बताये गए अवरोधों/बाधाओं का किस प्रकार समाधान किया गया? BMC/EIA/DCS ?

12). What are the strategies undertaken to expand dairy activities for SC/ST in the villages? How much support was provided by NDDB and other authorities(SC/ST Welfare Officers)?

/ ?NDDBएवं अन्य अधिकारीयों द्वारा क्या-क्या सहायता प्राप्त हुई?

13. What are the impacts of the following on SC/ST population:-

/जनजाति आबादी में निम्नलिखित के क्या प्रभाव हैं:-

i)   NDP-1

j)   ITDP(Integrated Tribal Development Agency)

k)   Other government schemes and programmes अन्य सरकारी योजनाएँ एवं कार्यक्रम

l)   How convergence has been made between above three programmes?

उपर्युक्त बताये गए तीनों कार्यक्रमों के बीच समावेश कैसे बनाया गया?

14. What role like networking, partnership did civil society organizations take to promote dairy farming as livelihood option for SC/ST population?

/ ने नेटवर्क और भागीदारी की क्या भूमिका निभाई और कैसे?

15. How this project intervention has put impact on the socio - economic empowerment & quality of life of SCs and STs w.r.t. beneficiaries, project functionaries and management committee in dairy institutions? (Mention both positive and negative side).

/ -आर्थिक सशक्तिकरण और जीवन के गुणवत्ता पर इस परियोजना का कैसा

(a. डेयरी लाभार्थियों; b. परियोजना कार्यकर्ताओं; c.)

और नकारात्मक दोनों पक्षों का उल्लेख करें

16) What are the various government schemes specially framed out for SC and ST population to promote the dairy business in their communities extensively?

किन विभिन्न सरकारी योजनाओं को खासतौर पर अनुसूचित जाति/

?

17) Discuss in details about the implementation mechanism of above mentioned government schemes framed out for SC and ST population to promote the dairy business in their communities.

उपर्युक्त बताये गए सरकारी योजनाओं के क्रियान्वयन प्रणाली की विस्तार से चर्चा करें

18) What are the obstacles encountered during the implementation of above mentioned government schemes?

उपर्युक्त बताये गए सरकारी योजनाओं के क्रियान्वयन के दौरान -किन बाधाओं का सामना करना पड़ता ?