

**Final Report on**

# **Impact Assessment of Community Empowerment through NRM Project**

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**Supported By-**  
**OXFAM INDIA TRUST**  
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**Implemented By-**  
**Parmarth Samaj Sevi Sansthan**  
Orai (Jalaun), Uttar Pradesh

## Chapter-1: Background

### 1.1. Introduction

Parmarth Samaj Sevi Sansthan has been working for the empowerment of women, scheduled caste and the other least privileged sections of the society in the interior pockets of Jalaun district since 1995. The organisational mission focuses on empowerment of the vulnerable sections of the society by organizing them, building their awareness, knowledge and skills so as to help them to achieve their rights and get justice in the society in a sustainable manner.

Parmarth has been working in three villages namely Laxmanpura, Kadampura and Chotibed (Hamlets of Narol and Siddhpura villages) of Madhogarh block of district Jalaun through livelihood project since Nov. 2001, which is being supported by oxfam (India) Trust Lucknow. The main purpose of this project is to ensure the livelihoods of 219 Dalit families through various interventions (with their own active participation) related to their natural resources development, enhancing their capacities to manage it. It has also been ensured that through all these interventions and processes the Dalit community gets empowered, understand their rights and raise their voice for that.

Since the OXFAM supported project is coming to an end by August-2004, Parmarth at this stage decided to assess the impacts of the project, processes followed in achieving them and the key learning which could be incorporated in the organisational future approach and strategies.

### 1.2. Purpose:

The purpose of the assignment was to assess the overall impact of the project supported by Oxfam implemented in three villages of district Jalaun.

### 1.3. Objectives:

The following objectives were decided to achieve the above purpose.

- To assess the changes in people's (Men, Women, Landless, Children) lives as a result of project interventions.
- To outline the various processes that has facilitated for achieving above.

### 1.4. Scope:

The impact assessment study focused to capture the critical changes in the following areas.

- Physical changes related to land productivity, agriculture production, irrigation facilities, cropping pattern, livestock etc.
- Environmental changes related to soil erosion, moisture conservation, ground water level etc.
- Changes related to income and food security, migration pattern etc.

- Changes in people / community's practices, ideas and beliefs especially related to agriculture and other NRM practices.
- Changes in social norms, beliefs and practices at family and community.
- Changes in the implementing organization's ways of working, perspective and priorities as a result of the project intervention.
- Changes in implementing organisation's capacities and skills.

The study also focused on;

- Assessing the social processes process followed in achieving the critical changes in the project.
- Effective benefits to the above said marginalized group as a result of various processes.
- Organisational efforts made towards gender mainstreaming in natural resources management NRM.

### 1.5. Methodology

A participatory methodology was adopted to capture the critical changes through;

- Study and review of the project documents as provided by Parmarth
- Discussion with Parmarth staff responses for planning implementation and monitoring the project activities of the field level
- Discussion with women and men in the villages, the members and non-members of NRM committee, people from different communities, with difference level holding and these who have benefited from the project
- Visit the field area where the physical structures/activities have been carried out
- Sharing the critical findings and learning with the project team
- Information compilation and analysis
- Submission of draft report for sharing
- Incorporating suggestions and submission of final report

### 1.6. Limitations

- Project duration

The project is only two and half years old and sometimes it is difficult to consolidate the social processes within such a short period. Also the implementation phase is normally influenced by the different project inputs including the money and hence shows exciting impacts initially that might not sustain after the project is withdrawn.

- Timing of study

Around 40% of the work was completed during the current season which could not experience the monsoon season at all. Therefore the analysis for this work depends upon the trends based on the last year's impacts which might be misleading as the variables such as rainfall intensity, distribution pattern, frequency etc. will affect the impacts after the current monsoon.

- Project area

The organization working with dalit women has been under pressure from dalit males, upper caste communities and the Beehad conditions. Pahuj River also creates some hindrances in field visits during monsoon season.

- Delayed monsoon

The area is affected by delayed monsoon this year that might affect the trends in impacts as analyzed in the document.

### 1.7. Units

The following units of measurement have been taken in the document for analysis and presentation.

- Area in Acres
- Weight in Quintals
- Money in Rupees
- Length in Meters

## **Chapter-2: Project Interventions**

### 2.1. Situation Analysis

The project covers 219 Dalit (All Jatav) families in 3 Majra-villages (hamlets) of Narol and Siddhpura villages. The total cultivated area in all the villages is above 680 acres of which more than 85% depends upon monsoon. In spite of 862 mm of average rainfall, the area falls under drought prone ravine zone due to high run off rate resulting to single crop production. The project area shows typical characteristics of Beehad and is suffered by high degree of soil erosion. The average landholding is 6 acres and around 40% of the families have food security for less than 6 months.

The project villages are suffered by adverse sex ratio (734/1000). The sex ratio in the age group of 0 to 6 years is 721/1000. The reasons for adverse sex ratio are high mortality rate of girl child, 40% of the male folk remains unmarried, use of females by the dacoits, high mother mortality rate (MMR) etc. Around 23 women died during delivery in adjoining 15 villages over a period of last 1.5 years. The poor families who suffer from food security have easy access to ultrasound facilities at Bhind and Orai. The dowry system is also responsible for the adverse sex ratio, which ranges from 50,000/ to 1,00,000/. The girls are married at an age of 12-14 years.

Almost 80% of youths (15-35 age group) migrate to Gujarat, Maharastra, Punjab and Delhi to work as factory worker, coolly, labourer and small hawker. Some of the villagers migrate to Surat for cloth painting for a period of 6-8 months and return with diseases of throat problem and TB. Most of them cannot afford treatment and borrow money from the local moneylenders at an interest rate up to 120%.

The villages before the project interventions faced serious drinking and domestic water problem, as there was no hand pump. The whole family used to get involved with the help of a bullock in fetching the drinking water from the wells. They had to wait for their turn and most of the time it took 3-4 hours to fetch the water for drinking and other purposes. Sometimes the families had to sacrifice the whole day labour to fulfill their water requirement. Women sometime used to avoid taking bath for 2-3 days in lack of water availability. The ground water level was 115-120 feet deep in summer and 100 feet in monsoon.

Also the government machinery was quite defunct before the project and no government functionary visited the villages as the villages are located in Beehad and it needs to cross the river to reach the villages. There was only one primary school in three villages which was normally closed due to absence of the teacher and the around 38% of the school going children were enrolled. Also the drop out rate was very high. No timely immunization and vaccination of the children had been done as the ANM found it difficult to visit the villages on regular basis. PHC is 15 kms at Rampur and crossing the river especially during monsoon season is a big problem for delivery, sickness and marketing.

The upper caste rich families exploit the target community, as around 60-70% of them are dependent on 15-20 upper caste families from Narol and Siddhpura villages for labour work in agriculture. The target community takes credit for agriculture, sickness and marriage at an interest rate of 60-120% by mortgaging their land. Sometimes the borrowers go on paying the interest only

and not the principal amount and do not get their land back. If the borrowers do not repay the loan on time they are tortured in terms of abuses, asking again and again, sexual exploitation of their women etc. The poor families cannot take their voices outside because they have to depend on these families for their survival.

The panchayat representatives from the target groups are hardly listened by the upper caste community in the main villages like thakur, pal and yadav etc. Also the husbands of the elected women panchayat members generally represent their wives and thus women members are marginalized.

## 2.2. Project interventions

### 2.2.1. Group formation and management

Parmarth has formed various groups and institutions at different levels such as Self Help Group (SHG), Gram Chetna Kendra, Mahila Mandal and Kishori Mandal at the village level, Natural Resources Management (NRM) committee at the project level and Pahunj Vikas Manch at the area level. The organization focuses on organizing them and building their capacities to help them achieve the individual and common goals.

The mahila mandalas (62 members) meet once a month to discuss their issues and concerns and take initiatives to solve them. The mandals have been able to raise the issues related to health, education and drinking water to the respective government departments so far. The gram chetana samities (49 members) also meet once a month and take initiatives to raise the issues related to health, education drinking water, irrigation, drought, land-disputes and the others to pressurize the district administration. The samities also raise their issues in the panchayat meetings regularly. The samities so far have been successful in solving the issues related health, education and drinking water to a large extent.

Kishori mandals (52 members) in the project villages meet once a month and discuss the issues concerning to them such as health, education, early marriage and their rights. NRM committee is (13 members) is primarily responsible for planning, implementation and monitoring of the natural resources management program in 3 villages. The committee is responsible for beneficiary selection, activity approval, quality control, measurement, payment and conflict resolution.

The SHG (10 numbers) consist of 110 male and female members in all the groups. The groups meet once a month, discuss their issues and concerns, decide loaning & recovery and dealing with banks. All the groups have been linked to the nationalized banks where the groups themselves manage their deposit and withdrawal issues.

### 2.2.2 Agriculture development

Parmarth has planned and implemented various activities to improve the condition of agriculture so as to enhance agriculture production to help the villages meet their food and income requirement. Around 750 acre of rainfed land covering around 290 farmers has been treated through various soil and water conservation measures (Annexure) such as farm bunding, marginal bunding,

spillways/outlets, gabion structures and other water harvesting structures. The farmers shared the 30% of the construction cost as their contribution in terms of labour, kind and cash.

The organization undertook water resources development activities such as renovation of dug wells (2), construction of check dams (3), supplying pipelines and repair of 400-meter long irrigation channels to enhance irrigation coverage to support around 90 farmers. The farmers contributed 75% of the total cost in well renovation.

The demonstrations for promotion of vegetable cultivation and increased use of bio-fertilizer were conducted with 3 and 12 farmers respectively. The organization supported 80 farmers for composting the farmyard manure and 10 farmers for wormiculture. Also 88 farmers were supported to plant 1000 horticultural saplings on their land.

### 2.2.3. Income generation activities

The SHGs (11) were supported by a matching grant of Rs. 5000/ each. The SHGs provided loan under the revolving fund to 15 families for releasing the mortgaged land, purchasing bullocks and providing pipelines for irrigation support. Also the loan of Rs. 5400/ each was provided to 10 families for the purchase of 5 goats along with a buck each with a 60% subsidy. Around 125 families were supported under grain bank and seed bank schemes. The SHGs also provided crop loans to the needy families.

### 2.2.4. Capacity building

Parmarth put a due focus on capacity building of various groups through exposure visit to Samarpan Jan Kalyan Samiti- Konch, organizing training & orientation workshops on leadership, operation & maintenance, sustainable agriculture, SHG linkages with bank, women violence, gender issues & lower sex ratio land rights and food security. Around 1000 participants were oriented on the above issues through various training and orientation programs.

## 2.3. Processes

Parmarth has a strong belief in following the holistic processes to achieve its goals of empowering the community with a specific process on women. The key processes followed by the organization emphasize on participation of all the stakeholders, maintaining the transparent systems and procedures, achieving the objectives of social & gender equity and withdrawal strategies.

The organization divided the project duration of two and half years in three phases of planning, implementation and withdrawal as below.

- Phase-1; November-April 2002-Planning phase
- Phase-2: May-2002 –August 2003- 1st year of implementation phase
- Phase-2-Contd: September-2003-August-2004-2<sup>nd</sup> year of implementation phase
- Phase-3: September-2004 onwards -Withdrawal phase

### 2.3.1 Planning Phase

Phase-1 primarily focused on project area selection, awareness building, trust & confidence building and the project planning. The project area is a part of around 25 villages in Beehad on the other side of Pahuj River. The community was quite suspicious as usual in the beginning and did not cooperate the staff. The process of information collection especially through mapping disturbed the villagers as why they are interested in such kind of information and whether they want to do something with their lands. The community remained inactive for a couple of weeks in spite of the regular visits of the project staff to the villages. Slowly and slowly the community started talking to the project staff and the organization got a finger to catch.

The process followed during the phase-1 includes conducting baseline survey and participatory rural appraisal (PRA) exercises for gathering information from primary and secondary sources. The process of trust and confidence building was initiated through regular interaction, clarifying the objectives of the organization and the project both, sharing learning and experiences from actionaid project adjoining to their villages. Some of the villagers have their relations in actionaid project villages, which played an important role in establishing the community relationship with the Parmarth.

The exposure visit of 6 men 15 women was organized to Samarpan Jan Kalyan Samiti Konch to learn about various physical works and the processes followed by the organization. The villagers took a keen interest in the processes followed up for group formation and management by Samarpan. The exposure visit strengthened the community's faith in the organization and hence the process of group formation such as mahila mandal, NRM committee, kishori mandal, gram chetana samiti and SHGs was initiated. The project staff remained in touch with these groups through regular visits to the villages.

Parmarth used all the occasions and opportunities to convey the message of gender equity and equality. Issues of women violence and adverse sex ratio have been part of regular interaction. The campaigns for gender sensitization through songs, role-plays, chart, poster, children's rally and group meetings were made. The focus all the groups remained always on women's participation in meetings.

The planning process started with identification of physical area and contour mapping for the field-to-field based planning on revenue maps. The emerging issues were shared with village committee and gram sabhas. The cost sharing issue was also discussed for different interventions in terms of cash or kind.

The construction of 6 Nadepts started in the villages to demonstrate the concept of composting during the 1<sup>st</sup> year itself to re-strengthen the trust and confidence of the community in the organization. The training programs and workshops were organized for different group members on SHG formation and management, gender sensitivity and participatory monitoring and evaluation. At this time the district collector and Sub District Magistrate (SDM) were requested by the organization to visit the project villages. The government machinery along with the media representatives accompanied the two officers in the villages, listened to the problems and tried to sort them out on the spot. The government teacher was suspended on the spot who was not

coming to the school for last 5 years. One villager was appointed as Shiksha Mitra to run the school. This encouraged the community and boosted their morale to take the development initiatives further. Even the district level officers were not aware about this type of area in the district. The process of group pressure on various government departments started after the visit of the collector and SDM. This helped in installation of two hand pumps in the villages.

### 2.3.2. Implementation Phase

The second phase of the project focused on execution of the plan. Parmarth identified six major objectives as below and decided the detailed strategies and approaches to achieve them.

- Develop gender perspective within the community
- Capacity and skill building of women and vulnerable communities
- Develop organisational capabilities in the community
- Implementation and management through women
- Conservation and development of NRM through participatory approaches
- Activate and pressurize the government authorities for basic rights of the community- (Road, electricity, health, drinking water, etc)

The organization faced a lot of problems in putting women on the frontline. First of all the organization worked on changing the attitude and behavior of the project staff and their focus was shifted toward women's participation in the project. The staff faced a lot of opposition from the male folk in the project villages and did not get convince that women could handle such responsibilities who have never interacted with the outsiders. But the exposure visit could convince the villagers and thus a regular interaction was increased with both male and female.

The vocal women were identified during the regular interaction process and were involved in the planning process. The natural resources management (NRM) committee comprising 13 women members from 3 villages was formed and the leadership development workshop was conducted. The NRM sub-committees were formed for different works such as cost contribution, measurement & payment, purchasing, approval and quality control etc. The capacity building of the committee members was done through various training and orientation programs. Thus the NRM committee took the overall responsibility to execute the programs.

The organization took up the issue of equal wages initially and campaigned with different groups through songs, role-plays and rally. The project decided to pay equal wages to men and women in the project work.

Parmarth along with the groups set the indicators to monitor women's participation such as attendance, initiatives taken by the women on their issues and influencing the decisions etc. The decision was taken that individual beneficiaries will present their proposal in the committee meeting through a developed format and the same will be discussed in the meeting. The committee will approve the proposal after assessing the priorities based on the poverty analysis putting the last first etc. The project approach focused on putting the last first and hence the poorest and women headed families were given priorities in labour availability and other programs.

After the approval mechanism, the beneficiaries were asked to deposit some amount as a part of contribution in advance then adjusting the same in labour form. The measurements were taken in the prescribed formats and the respective sub-committees made payment accordingly. All the bills, vouchers, registers and other records were prepared in duplicates and one copy was retained in the village whereas the other one maintained by Parmarth office to maintain a higher degree of transparency. The revolving fund is transferred to the community based groups and the activities undertaken under the budget head such as seed bank, grain bank etc are managed by the recipients themselves. The payment was made to women members of the family only even if the working members were males. Initially men objected this but later on they got convinced made it a rule.

### 2.3.3. Withdrawal Phase

The challenge before the organization is how to ensure sustainability of the initiatives taken. Some of the social processes need to be continued and the capacities of the groups have to be upgraded and hence the organisational withdrawal is conditional. Parmarth has decided to continue in the project villages so as to take the incomplete work further.

The groups have been communicated about the withdrawal from the very beginning of the project. Parmarth along with groups is in the process of setting the direction for the withdrawal phase. The maintenance of the created assets has to be managed by the committee itself. The committee will provide initial support but the individuals and groups will be responsible for the maintenance of these structures. This has been decided that the benefiting farmers through agriculture development should contribute 25% of the increased production towards maintenance funds.

### **Chapter-3: Critical Impacts**

The project interventions have not only lead to the physical and environmental changes but also they have touched the various aspects of people's life in the project villages and hence the quality of life. The food security and income are the important factors, which have linear relationship with different physical, environmental and socio-economic changes and hence the efforts have been made to correlate the quantum of impacts with food security at least. The critical outputs and impacts of the project interventions have been listed below.

The food requirement of a family with a size of 6 members (3 adults and 3 children) is around 1 Qt/month i.e. around 12 quintals/year and hence the food requirement of all the villages is around 2640 quintals say 3000 quintals. Therefore, an approximate amount of Rs 20 lakhs will be required to meet the food requirement (only food grain) of the project villages. The correlation between the land holding pattern and the food security has been shown in the table below. The assessment would try to analyse how far the food security of the project villages has been addressed through various interventions.

SN	Category of families	Existing food security
1.	Families with > 5 acre of land	12 months
2.	Families with 2-4 acres	6 months
3.	Families with <2 acres	1-3 months

#### 3.1. Employment generated

The employment generated for two years provided an opportunity to the poor community to increase their food security and income level.

▪ Persondays	13438
▪ Mendays	8931
▪ Womendays	4507
▪ Cash generated	Rs.6, 07,500/

#### 3.2. Increase in wage rates

The target group had major labour employment opportunity before the project intervention in agriculture and the prevailing wage rates for men and women were Rs. 30 and Rs. 25 respectively. The project initiated the concept of equal wages for men and women both and increased the same to Rs. 50/day. The big farmers found it difficult to get labour for their work as most of the labourers got involved in the project based activities in a way or the other. This created a favourable environment for the labourers and they started demanding the wage rate of Rs. 50/day and thus the prevailing rate got changed. Now the labour community feels that the new rate will continue even after the withdrawal of the project.

#### 3.3. Increased crop production

A total area of 750 acres has been treated under soil and water conservation program of which 20 acres of additional land has been brought under cultivation. Around 60% of the treated area has experienced one monsoon season and has lead to increase in land productivity and agricultural production in the villages. The details of increase in crop production and income level for one acre of the treated have been shown in the table below.

SN	Main Crops	Yield/Acre (Before)	Yield/Acre (After)	Increased Yield/Acr	Rate Rs./Qt	Gross income
1.	Gram	3.00	4.55	1.50	1300/	1950/
2.	Pigeon pea	2.50	4.25	1.75	1500/	2625/
3.	Millet	3.50	5.00	1.50	350/	525/

#### Analysis of treated area

- Total treated area 750 acres
- Area treated in 1<sup>st</sup> year 450 acres (Around 40%)
- Area treated in 2<sup>nd</sup> year 300 acres (Around 60%)
- Area benefited by crop increase 40% of the treated area
- Additional area under cultivation 1st year 12acre
- Additional area under cultivation 2<sup>nd</sup> year 8 acre

#### Additional income from the improved cultivable land

SN	Crop	Area	Income rate	Gross income
1.	Gram	100	1950/	1,95,000/
2.	Pigeon pea	50	2625/	1,31,250/
3.	Millet	300	525/	1,57,500/
4.	Total	450	-	4,84,250/

- During the last season pigeon pea was mainly planted on newly constructed bunds.

#### Income from the land brought under cultivation

SN	Crop	Area	Income rate	Gross income
1.	Gram	8	1950/	15,600/
2.	Millet	12	525/	6,300/
3.	Total	20	-	21,900/

Total income comes around 5,05,000/

Additional income form the area treated in the second year will yield the results by another 40% provided all the natural conditions are favorable. This will lead to a gross income of Rs. 9 lakhs after completion of one cycle. The land development program alone will meet around 50% of food security (Food grain alone) of the community under ideal conditions.

#### 3.4. Erosion control

The area is affected by severe soil erosion due to its topography, vegetative cover and erodibility factors. Therefore soil & water conservation structures have been able to harvest the soil from 0.20 to 1.00 meters.

### 3.5. Moisture retention

The moisture retention is more in the downstream of the field i.e. near the bund only due to the higher land slope. The crop health was observed better in the lower zone due to soil and moisture retention. Also the crop in the lower zone (30-50%) was able to resist moisture stress for around 15-25 days more than the crop in the upper zone. Thus around 150 acre of cropped areas can survive during prolonged rainfall gaps.

### 3.6. Change in grain and seed quality

Most of the farmers in the villages use their own seed. The increased size of the grain in high soil & moisture retention zone is 1.25-1.5 time bigger from above zone. Thus the increased change in size of the grain leads to increased seed value and grain quality and also their market value.

### 3.7. Change in cropping pattern

Pigeon pea crop was planted on almost all the bunds first time and the farmers harvested a bumper crop. Earlier the land was full of gravels and pebbles due to silt erosion and the farmers faced difficulty even in different farm operations. The farmers used to grow only semua crop on these fields and gram on bit better land. The silt erosion was controlled after adopting various soil and water conservation measures and the quality of land got improved. After improvement in land condition around 40 acres of simua land was used for gram cultivation and around 20 acre of land where gram was grown was converted for mustard cultivation. The concept of mixed cropping has also increased which was more focused for sole millet or sole gram earlier. The cropped area under irrigation increased by improved wheat Lok-1 variety.

### 3.8. Land Value

The quality of lad has improved substantially through various land development activities and hence the market value of the land has increased up to 1.25 times.

Case-1: Dulli Dada of Kadampura village has 2.6 acres of land in the Beehad area. He had very little income by sowing only half of patch, as the land was highly undulated and unfertile due to severe soil erosion. Dulli Dada constructed the bund last year and sowed gram and semua on the whole patch. He got 2.4 quintals of gram and 1 quintal of semua that valued around Rs. 3100/ and 1500/ respectively. This helped Dullidada to purchase 6 bags of wheat to survive his family for 6 months. He earns some food and income from better quality agriculture land near the village. Now Dullidada finds himself fully secured for food.

Case-2: Ram Singh of Kadampura village regularly migrates to Bombay for around 6 months a year. He stayed back, as the employment opportunity was available within the village. He worked for around 240 days and earned an income of Rs. 12,000/. He purchased a buffalo for Rs. 9,000/

and spent rest of the income for household consumption. He does not sell the milk and uses for self-consumption. According to him, the health status of the family has improved. However he has got a baby she-buffalo, which can be sold for Rs. 4000/. He will continue migrating but will reduce the number of days by 20-30% and his wife will rear the buffalo.

Case-3: Mani Ram of Chhoti Ber village undertook soil and water conservation work on his 0.8 acre of cultivable land. He got 1.5 quintal of gram crop against 1 quintal of earlier harvests. He explains the science of in-situ soil & moisture conservation. The impact of the SWC measures is in the submerged area only. Around 30-50% of the treated plot actually gets benefit as the eroded soil from the upstream deposits near the bund and the moisture is also stored in the same regime. The crop yield is increased in this regime only. Also the size of the grain is 1.25-1.5 time bigger from this zone and has a capacity to resist drought for additional 20 days as compared to the upper regime. Thus increased change in size leads to increased seed and grain quality and their market value as well.

### 3.9. Irrigation

An additional area under irrigation has been estimated around 52 acres covering 55 farmers as against 32 acres of 30 farmers existing in all the villages through various water resources development and management initiatives. Three farmers irrigated their wheat crop on 6 acres of land and got an additional production of 90 quintals for a value of Rs. 54,000/. This makes these farmers food surplus. The irrigation coverage hence will not only ensure the food security of 55 families but also will make them food surplus after the next season. The total gross income is expected is Rs. 4,68,000/

SN	Sources	Estimated area under irrigation	Beneficiaries	Area irrigated As on date	Farmers benefited
1.	Pipeline	18	11	6	3
2.	Checkdam-1	8	15	-	-
3.	Checkdam-2	10	13	-	-
4.	Checkdam-3	16	16	-	-
5.	Total	52	55	6	3

#### Economic Returns

SN	Crop	Area	Production	Rate (Rs.)	Gross income
1.	Wheat	35	525	600/	3,15,000/
2.	Mustard	17	85	1500.	1,44,500/
3.	Total	52	-	-	4,59,500/

#### Cultivation on Balkat/Lease

Earlier the labour community and the marginal farmers work on crop sharing (Batiya) concept. In this approach the labourer takes crop on the field of irrigated farmer with all inputs including the labour and half of the harvest is shared to the landowner. This resulted poor returns for the labourers.

Case-5: This year 8 farmers took irrigated land on lease at the rate of Rs. 3500/ acre for one year due to their improved economic condition by the project interventions. They harvested wheat at the rate of 15 quintal/acre and took rainfed crops also. This change created a sense of farmer in place of labour and felt the social status increased.

Wheat value	Rs.9000/
Land cost	Rs. 3500/
Input cost	Rs. 1500/
Profit	Rs.4000/

Kharif

Bajar	3 quintal
Value	Rs. 1000/

Therefore the profitability of the farmer increased to Rs. 5000/ plus fodder availability per acre. This will secure around 7 months food.

### 3.10. NADEP

The 25 out of total 80 farmers who have compost/nadep pits applied organic fertilizer on their 10 acre of land and estimated an increase in crop yield by 1.5 times due to increased nutrient, humus and moisture availability. The remaining 45 farmers are planning to use the organic fertilizer from their pits in post monsoon and rabi season crops covering an additional area of 18 acres.

Thus the application of chemical fertilizer was reduced by 30-50% due to application of organic fertilizer. The impact of organic fertilizer will be more during the second year and its effect will remain for 3 years.

### 3.11 Quality Seed Supply

The quality seed of wheat (Lok-1) and gram was supplied to 5 farmers at the rate of 40 Kg. each to demonstrate the same on 0.8 acre of land per farmer. The organic fertilizer was applied. The wheat-demonstrating farmers observed an average increase in crop production by 1.5 times which lead to an additional income of Rs. 500 approximately for each farmer.

SN	Production (before)	Production (after)	Increased production	Rate/Qt	Gross income
1.	8	12	4	600/	2400/

### 3.12. Community's practices, ideas and belief

A large community in the villages has initiated use of composting whereas some of them have started agriculture operations on their fields across the slope to reduce soil erosion. Women have got more or less equal status in agriculture and they have started influencing decisions in agriculture. They are recognised as farmers in the project villages at least. The belief has changed

that the villagers would not like to migrate provided their food security and income level is ensured. The confidence of Dalit farmers has increased for development works from the government.

### 3.13. Grain Bank

The 30 quintals food grain (Wheat) was supplied to 53 families on credit through the grain bank program at the varying rate of 50-70 Kg/family as per the need. The supply was designed on the basis of need assessment by the project staff and the village level groups. This helped the families to sustain 15-20 days of food security. The recovery of wheat will be made in form of wheat only at the rate of 1.25 times of the food grain.

### 3.14. Goatry Promotion

The loan was given to 10 families for the promotion of goat rearing in the villages. The goat rearing has been found a profitable business and contributes quite a lot in ensuring the food security of the poor community in the project villages. In spite of the deaths of the goats, some of the interested cases have been given below.

Case-5: Draupadi (Chhotiber) has got half an acre of rainfed undulated land and gets literally nothing from this for the food security of the family. She took a loan of Rs. 5400/ around one and half year ago to purchase 4 goats and one buck but one goat died due to some disease spread in the area. She sold part of the goats twice for Rs. 1900/ and Rs. 1600/ respectively and purchased an bullock for Rs. 900/. Presently Draupadi has got the goats of worth Rs. 6500/ and an ox whose value is Rs. 1800/. She will have additional kids by Holi and will have a unit of 10 goats. She has repaid an amount of Rs. 1600/ out of Rs. 1800/ to be paid to the group. Draupadi analysis that that the goat rearing cost is met by the milk she gets and also use the milk for self consumption as well. Thus the gross income as on date is Rs. 2400/ over a period of one and half year to purchase the food grain (wheat) for around 4 quintals for 4 months. The unit of ten goat thus will ensure the food security for 8 months per year and thus Draupadi will become food surplus by April 2005.

Case-6: Santosh Kumar-Kadampura took a loan of Rs. 5400/ around one and half year before to purchase 5 goats but one goat died to some disease spread in the area. He sold part of the goats twice for for Rs. 2300/ and Rs. 1600/ respectively. He repaid an amount of Rs. 1400/ out of Rs. 1800/ to be paid to the group. The land development activities were undertaken on his 1 acre of land and got 100 kg of gram, 300 kg millet, 80 kg pigeon pea and 40 kg semua. Thus 5 months of food grain was available from land and 3 months from goat income. By Holi he will also have a herd of 10 goats and will confirm his food security by the next year.

### 3.15. Increased fodder availability

The fodder quality and quantity increased by 1.5 times due to improved millet crop health under the treated land and wheat from irrigated land.

### 3.16. Increased livestock

The employment generation, access to credit availability from SHGs and interest development in agriculture due to various land and water resources development programs encouraged the

villagers to invest on livestock as to enhance the productivity and income level. It is estimated that around 30% of the livestock population has increased in all the villages.

SN	Livestock	Before	After
1.	Cow	38	52
2.	Buffalo	97	132
3.	Oxen	27	41
4.	Goat	155	223

### 3.17. Credit

Around 70-80% of the villagers take loan from the local moneylenders at an interest rate varying from 48% to 120% depending upon the type and amount of loan. The major part of the loan is taken for purchasing the food grain, agriculture inputs, marriages and festivals. The poorest families take loan varying from Rs. 4000/-6000/-, medium families Rs. 2000/-4000/- and the better off families less than Rs. 2000/- annually. Thus an amount of Rs. 6 lakhs is borrowed approximately borrowed by the villages annually, which becomes around 9 lakhs after 1 year leading to several socio-economic implications to the villagers and throwing them into poverty trap.

The percentage of families taking loan was reduced by more than 70% during the last two years due to employment availability and income generation through various interventions. The 15 SHGs (9-women-102 & 6 men groups with 65members) having a saving of Rs. 115000/- in their account also provided loan 111 families in rotation and an amount of Rs. 33000/- is to be recovered. The loans were taken for education, health, marriages, agriculture etc. The situation will not remain the same after the component of employment is withdrawn. However increasing amount in SHGs and increased income level through various development initiatives will reduce the villagers' dependency on moneylenders in future.

SN	Food grain	Agric. inputs	Livestock	Diseases	Marriage & festival	Others
1.	20	40	10	5	15	10

### 3.18. Migration

Around 80% of the village youths in the age group of 15-45 migrate to other places like Ahmedabad, Nagpur, Bombay, Surat, Delhi and Punjab in search of employment due to poverty and fear from dacoits. Above 70-80% migration was reduced during the last two years due to employment opportunity and additional income generation through the project. It is assumed that even after withdrawal of employment opportunity in the villages, 20-30% migration will be reduced during the coming years due to various income generation initiatives taken by the project.

### 3.19. Drinking water

There was a serious drinking water problem in the villages as there was no handpump in the village and used to fetch drinking water from wells. The time consumed to fetch water was 3-4 hours and they had to wait for their turn. The whole family along with a bullock was used to lift

water from the well. Now the project staff motivated the government functionaries and the visit for the district collector was organized in the villages. This helped in building the environment in the government departments and 13 hand pumps were installed all the villages. Women have no drinking water problem now and they fetch water whenever they need within no time. The workload of women has reduced in fetching drinking water. The families accessing to safe drinking water before the project through handpumps and tubewells were 18, which increased to 187.

### 3.20. Ground water level

The wells used to get dry during May and June. No well dried after the project interventions. The water level in the open wells has increased by 0.3 to 1.00 meter.

### 3.21. Addressing the issues of least privilege sections of the society

The special focus was laid on ensuring the economic benefits to the poorest families, women headed families and the other vulnerable groups through employment and income generation programs.

### 3.22. Change in organisational capacities, approaches, beliefs etc

Parmarth used to work on gender issues but was limited to gender sensitization. The organization after the project has shifted its focus to women violence and atrocities. Earlier the main focus was to ensure the constitutional rights of women, which are now shifted to social and humanitarian rights. Also the main emphasis is on working with needy dalits rather than better off dalits. The new dimensions in the issues & approach of the organization have entered in the field of ridge to valley approach of natural resources management and the adverse sex ratio. Also the field –to-field based planning was a new concept to the organization.

### 3.23. Change in lives of the people (Women and girl child)

- Around 60% women have started taking initiatives in taking care of their own health and the health & education of their daughters due to saving money in their respective SHGs.
- Economic status of the 80-90% families has improved due to increase in crop production by developing and managing the natural resources.
- The nutrition intake of females has increased due to increased intake and the changing attitude of males in the community. (30-40%) pigeon pea production, goatry, buffalo, employment, income and surplus food security.
- The confidence level of women has increased through self-organizing initiative and their capacity building processes. They have started coming forward to raise their issues and concerns. This has lead to reduced degree of their concerning issues such as drinking water, lack of education for the girl child, women violence etc. Started from zero and around 50 women.

- The cases of women violence and fetus killing have reduced through establishing the worldview of gender equality in the community. An understanding of violence was developed among 60% of the community.
- The change has lead to increased population of girl children (6 more than boys) during last 3 years. No maternal mortality Rate (MMR). No death during delivery has been observed so far as the trained Dais from Maharastra have been taking care of pregnancy cases for the last 3 years.
- The economic status of 9 women headed families has increased which has encouraged them to do better in their life.

#### 3.24. Change in lives of the people (Men)

- The food security of 50% of the families has increased from 6 months to 1 year due to increase in area under cultivation, land quality, irrigation coverage and the crop production under the natural resources management program.
- The dependency on moneylenders has reduced and their exploitation by them has also controlled due to increased self-reliance through creation of village funds. (Gram Kosh- 75000/, recovery- 30000/, grain 50 quintal, seed 20 quintal)
- Men have started taking initiatives on their own for their self development and solving their problems on their own.

#### 3.25. Change in policies, practices, thinking and myths

- The women did not have opportunity to meet, discuss and share their issues with other women. The organization has provided them a common platform for the same where they share their personal issues and concerns and help one another. This has lead to their improved self-confidence.
- Women used to tolerate the atrocities and could not resist to the males now the situation has improved and they have started raising their voices.
- Women have broken the myth that they cannot work in the so-called reserved areas for men by not implementing and managing the natural resources management programme in the villages. They have not only came out of the homes but also started in taking decisions themselves in group meetings and at other platforms. Now men have also recognised the fact that they can equally work in the areas.
- The attitude of community has changed on girls that they are the property of somebody else. The girls have started going to schools now.
- The myth that women should not talk to the outsiders and should always behind the scene is changing within the community.

- The development is for the rich people and not for the poor this belief has changed in the villages. The poor now recognize that they can achieve their rights by organizing themselves.
- The government departments were influenced to a great extent and with the visit of the collector to the villages 13 hand pumps were installed during the last one and half years, primary school in Chhotiber was started and 2 tubewells were repaired for drinking water and irrigation. The metallic road was constructed from Nenaoli to Kadampura, 8 km long kacchha road Kustepura to Kadmapura.
- In addition to the increased crop production the cost of cultivation of the farmers has reduced by adopting the compost and bio-fertilizers.

### 3.26. Change in gender equality

- Women get an opportunity to increase their knowledge and skills by establishing the worldview of gender equality in the community.
- 30-40% women can take self-decision and 50-60% as joint decision. The women's involvement in decision-making at the family level has increased and jointly run the family with their male members.
- The role of women in agriculture has increased and they are also recognised as the farmers. They take part in crop planning and management of crop inputs such seed, fertilizer, credit etc. There is around 25% shift from labourer to decision maker.
- Women's participation panchayati raj institutions has increased and they have started raising the issues in the meetings related to drinking water women health etc.

#### **Chapter-4: Conclusions and Learning**

The project has played a very crucial role in creating an environment for improved life of the community in the coming months/years ahead. The organization seems to be prepared to address the critical issues of women and dalits in the area in future. The organization has adopted a number of new ideas, approaches and strategies, which helped in achieving the project goals in a more efficient way. Some of the keys learning from the project are as below.

- The project duration is too short to implement a livelihood development project. This can leave many things on midway and hence needs to be given appropriate time for project implementation especially in the Beehad area where socio-economic and other conditions are quite different.
- The organization should not withdraw from the project villages, as the initiatives taken by the organization need consolidation and might get diluted in the long run. The organization can tie up the groups and their plans to the different line departments in the government.
- Pahunj vikas manch can play an important role in raising the community level issues from the project villages due to its size and influence at the higher level.
- In case ridge to valley approach of natural resources management is not followed, the organization must ensure the stability of the structures to avoid damages and also to reduce maintenance cost in future.
- The organization has taken some initiatives to promote sustainable agriculture, which need to be strengthened by adopting an integrated approach of sustainable agriculture.
- The organization needs to take stock of the works to be done during the withdrawal phase and assess the capacity building needs of the groups. The capacity up gradation program should continue so as to help the groups perform well in their respective roles.
- The groups would require increasing their funds so as to get rid of the local moneylenders and become self-reliant for their credit needs in the near future. They have to explore ways to achieve self-reliance in the field of credit.
- The pressure created by the groups on different government departments like health and education is not sustained and the health and education related problems affect the life of the villagers. The issue should be taken more strategically to sustain the same. Perhaps the community will have to come forward with more roles and responsibilities.
- The organization should try to strengthen its right-based approach in these villages like actionaid villages during the withdrawal phase so as to make the community stronger to achieve its goals.