

# Strengthening Community Capacities on Disaster Risk Reduction in Rajasthan and Gujarat

Evaluation Report



Evaluators:  
Mona Chhabra Anand, Knowledge Works  
Rajesh Kapur, Cohesion Foundation

May 2011

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UNNATI  
Organisation for Development Education

Supported by:  
CORDAID



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# Contents

## List of Acronyms

## Executive Summary

### CHAPTER-1. Introduction

1.1 Background	1
1.2 Operational Strategy	3
1.3 Management framework	4

### CHAPTER-2. Key Observations

2.1 Specific Objective 1: Build knowledge base on DRR for use by Response Practitioners.	5
2.2 Specific Objective 2: Five innovative practices for community based DRR	9
2.3 Other direct interventions under the project – Response to 2009 Drought 2009	26

### CHAPTER-3. Conclusions and Recommendations

3.1 Achievements against committed targets	31
3.2 Sustainability of project interventions	32
3.3 Challenges	33
3.4 Successes	34
3.5 Recommendations for the way forward	36



## **List of Acronyms**

CMDRR	Community Managed Disaster Risk Reduction
NDMA	National Disaster Management Authority
GSDMA	Gujarat State Disaster Management Authority
NGO	Non Government Organization
DRR	Disaster Risk Reduction
DDMP	District Disaster Management Plan
MGNREGA	Mahatma Gandhi National Rural Employment Guaranty Act
VDC	Village Development Committee
CAZRI	Central Arid Zone Research Institute
PHED	Public Health and Engineering Department (of the state government)





## EXECUTIVE SUMMARY

*“Strengthening community capacity on Disaster Risk Reduction in Gujarat and Rajasthan”* was a three year project started in October 2007, and later extended by another 9 months until June 2011. The rationale for designing this project was to address a critical deficiency of replicable and scalable solutions on Community Managed Disaster Risk Reduction (CMDRR) for traditionally marginalized communities, essentially dalits, through field practices & knowledge building in western India. It was assumed that if the pilots succeed, then many stakeholders from diverse backgrounds can draw learning from them. The project thus endeavored to demonstrate five innovative practices in 23 villages of Jodhpur and Barmer districts of Western Rajasthan. The 3 year project aimed to cover around 10,000 households through demonstration; it was planned that of the target population, 50% would be women and 90% of primary stakeholders would be dalits.

The project was proposed by UNNATI organization for Development Education and funded by CORDAID. UNNATI as an organization has years of experience in addressing the social determinants of disaster risk. It may be emphasized that CORDAID’s role extended beyond financial support and included capacity building inputs. CORDAID appointed ASK Foundation to support UNNATI in the strategic design and management of the programme in its transition from a CBDRR to a CMDRR intervention.

A team of disaster management and development planning specialist and a rural development specialist was appointed to evaluate the project thus identifying its key successes and challenges as well as articulate broad contours of future programming.

There were two specific objectives of the project. First was to build knowledge base on DRR from field practices and studies to be used by emergency response practitioners. UNNATI has been able to develop knowledge products that were well received by other partners and motivated them to use the same in their working areas. For example the comparative analysis of relief and rehabilitation packages of different state governments has been fed into the National Disaster Management Authority to enable systematic development of response packages as well as standard procedure for actualization. The programme was visited as a good practice by basin South Asia partners to gain insights on reducing disaster risk of rural housing stock. The drought monitoring component of the programme has also been documented as a good practice by international interns from UNICEF.

While these achievements are commendable, and high quality and clearly relevant knowledge products have been produced, there was inadequate indication of a well-structured knowledge consolidation and dissemination strategy. Identifying and deciding on the nature of knowledge products, at the project designing stage, can help increase the impact of the project.

The second specific objective of the project was to pilot and demonstrate five innovative practices for community based DRR. Following five practices were carried out

- Pastureland Development for fodder security at five locations
- Water access for dalit communities during drought period through 4 community based water distribution mechanisms covering 1000 families
- A trained pool of 100 artisans is developed on appropriate and disaster safe housing
- Develop understanding on government health services and systems developed to monitor government health services
- Disaster Risk Transfer through Insurance

In addition, following interventions were carried out under the programme in response to the Drought in 2009:

- Supply of drinking water to the vulnerable and construction of rain water harvesting tanks (Tankas) for the poorest of the poor
- Providing fodder for small ruminants mainly goats
- Monitoring of Drought Relief Services Provided by Government
- Malaria awareness campaign

The evaluation reveals that the project has been able to create awareness on Disaster Risk and risk reduction measures and increase access to relevant knowledge and technical solutions.

Of the innovative projects under specific objective two, the deliverables with regard to demonstration of safe and alternate technologies as well as the one with regard to risk coverage through insurance, have been partially met. This could be attributed to the short duration of the project working with extremely financially weak segments of the population for whom purchasing insurance, as a risk reduction measure, is not a priority.

Thus in terms of tangible outputs committed to the donor, the project has fared well on some deliverables while there have been shortfalls in few deliverables.

The project is a unique intervention that has demonstrated practices aimed at reducing the disaster risk of a socially and politically excluded community. The project has managed to achieve a fair degree of success in building a constituency of critical stakeholders engaged/interested in reducing drought risk of communities particularly those that have been traditionally marginalized.

One of the biggest highlights of the project has been the capacity created within the dalit community to objectively identify the most vulnerable households within the community and the motivation to prioritise their needs in order to survive drought.

During the interaction with each partner NGO, (each of them with a much greater outreach beyond the project villages) an increased understanding on drought as a disaster and related risk reduction measures were highlighted as one of the critical building blocks for future work. Similarly, through its interventions in relation to knowledge building and consolidation, the project has been able to effectively engage with policy environment at the local, district level and at the national level with regards to DRR in the context of drought. Through an active community, a sound base for sustaining some of the interventions has been established.

The project faced lot of challenges because of many reasons. In an ambitious timeline of 3 years, interrupted by a severe dry spell in 2009, the project took on the challenge of working on several sectors, many of them new to UNNATI and its partners and few of them new to dalit communities as well. There were contextual challenges also because of inherent nature of the terrain and community- the terrain which has extreme weather conditions, remoteness and community which is illiterate, has rooted caste differences and does not want to take risk. The political representation of the project area at state level is also responsible for the attention it gets from the government. During the Project period there had been changes within UNNATI with regard to project leadership at Jodhpur office, which too posed certain challenges.

The project has fared well despite these challenges. A comprehensive understanding of drought as a disaster and, pre and post disaster determinants of risk has been developed within the community. The project has effectively demonstrated contextualization of traditional DRR strategies such as formation of community based task forces necessary in the context of drought. Community based understanding of vulnerability conditions was one of the key element for the success.

The project has had some degree of impact on policy processes at various levels. The various interventions of the project helped the VDCs to link up with the institutional machinery at the appropriate level. These linkages were effectively used by the people and the partner NGOs to improve the quality of relief provision by the government during 2009 -10 drought.

The project has, in its own small way, initiated a legacy that simply cannot be discontinued at this juncture. There is enough evidence on the ground of the outcome of the project activities- both softer processes related to community capacity development for DRR as well as creation of tangible assets for families and their communities. The potential of many of these activities is visibly high, and was also reported by participating communities and partner NGOs. Some of the strategies and actions that can be considered for the future are:

- Expand the scope of pilots - scale up/ scale out
- Work with policy makers and implementers for application of good practices
- Improving stakeholder understanding and perception of risk
- Knowledge consolidation and dissemination especially for the benefit of other drought prone states.

The Project needs to carry out structured documentation and dissemination of the innovative practices, besides identifying other suitable knowledge products to be developed in relation to DRR in the context of drought and dalits as the targeted social group.



## CHAPTER 1: INTRODUCTION

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### 1.1 Background

**UNNATI** - Organisation for Development Education is a voluntary non-profit organisation working to promote social inclusion and democratic governance so that the vulnerable sections of society are empowered to effectively and decisively participate in mainstream development and decision making processes.

*“Strengthening community capacity on Disaster Risk Reduction in Gujarat and Rajasthan”* was a three year project started in October 2007, and later extended by another 9 months until June 2011. The project was designed to address a critical deficiency of replicable and scalable solutions on Community Managed Disaster Risk Reduction (CMDRR). The project thus endeavored to demonstrate five innovative practices in 23 villages of Jodhpur and Barmer districts of Western Rajasthan. The field practices for demonstration were chosen based on specific needs of the area. Apart from developing community’s capacities and reducing their vulnerabilities, especially of dalits, the project intended to create a knowledge base on DRR for use by community, NGOs, CBOs and PRIs and also for advocacy with various stakeholders.

#### **About the evaluation**

In May 2011, a team comprising of a disaster management and development planning specialist and a rural development specialist was appointed to evaluate the project, identify its key successes and challenges as well as articulate the broad contours for future programming.

The evaluation was thus expected to serve an overall purpose of reflection and learning on the relevance and appropriateness of the project objective, outcome level results and strategies. The evaluation also aimed to trigger an institutional process for future programme planning. Apart from measuring impact and outcome, it was expected to contribute to thematic learning by capturing success stories, challenges, and achievements.

The evaluation was thus conducted through field investigations, interaction with some village development committees and participating families, select government functionaries (face to face and telephonic), partner NGO staff at various levels as well as UNNATI staff. A short learning event was also organized at the end of the field visit with UNNATI and partner staff to consolidate learning and insights. The evaluation team thus approached the evaluation as an exercise to facilitate learning rather than purely evaluate and assess delivery of outputs committed to the funder.

Given the comprehensive nature of the project documentation of the project and periodic reports were extremely useful for developing a well-rounded understanding of the project.

#### **About the project**

The overall objective of the project was Capacity building of dalit community, NGOs, CBOs and PRIs on Community Managed Disaster Risk Reduction strategies through field practices and knowledge building in Western India.

**SPECIFIC OBJECTIVE 1:** Build knowledge base on DRR from field practices and studies to be used by emergency response practitioners. Broad list of activities envisaged were:

- Training modules and training programmes are developed on community based DRR
- NGO and CBOs are supported with information, material and training on DRR strategies and project cycle management including PME.
- Research reports are prepared on disaster management policy, packages, legislative frameworks and best practices.
- Educational material in the form of booklets, case studies, etc is developed on DRR practices addressing disasters such as drought, cyclone, floods, epidemic and earthquake.

**SPECIFIC OBJECTIVE 2:** Five innovative practices for community based DRR are made available to repertoire of DRR practices. Broad list of activities envisaged were:

- 5 innovative DRR practices are demonstrated
  - Pasture land development for fodder security at five locations
  - Water access for dalit communities through 5 community based water distribution mechanisms covering 1000 families
  - A trained pool of 100 artisans is developed on appropriate and disaster safe housing technology
  - Develop understanding on government health services and systems developed to monitor government health services. Women Para health workers trained to access government health services and build assertive community to access health rights and entitlements. Community level awareness and action to strengthen linkage between government service providers and programme on malaria and veterinary services
  - Disaster risk transfer coverage through insurance is promoted among 5000 families.
- The practices are documented, validated and shared for wider use.

The project was further revised in its third year to include the emerging needs of drought response in Rajasthan in 2010 as most of the pilot villages were affected by the drought in the state. The activities included in the revised proposal were:

- Supply of drinking water to vulnerable families.
- Construction of rain water harvesting Tankas for the poorest of the poor.
- Providing fodder for small ruminants mainly goats
- Monitoring of drought relief services provided by government
- Malaria awareness campaign

The 3 year project aimed to cover around 10,000 households through demonstration. Of the target population, it was planned that 50% would be women, 90% of primary stakeholders being dalits.

## 1.2 Operational Strategy

The project was designed for the prevailing vulnerability conditions of western India states of Gujarat and Rajasthan. The understanding was that Gujarat earthquake and the ensuing programs on response, preparedness and risk reduction have indeed informed initiatives by a diverse range of stakeholders outside Gujarat.

Pilot villages in Rajasthan were chosen based on a set of selected criteria, key ones being-

- Villages where people live in dispersed *dhanis* or homesteads.
- Village with mostly dalit population and few minority groups
- Families that have land and domestic animals and are willing to work the land.
- Families that are poor but are nonetheless interested in transformation and are willing to devote time for the same.

Project beneficiaries were chosen based on the following criteria:

- Friends and relatives of NGO staff were consciously excluded
- Expansion beyond beneficiaries of previous programmes.
- Beneficiaries from all kinds of disadvantaged backgrounds – SC, ST, religious minorities.

UNNATI and its partners in Rajasthan were instrumental in the formation of Dalit Resource Centres as community based institutions for taking up issues related to development of traditionally marginalized groups, particularly dalits.

It was explicitly desired that the programme should feed into the process of evolution of Dalit Resource Centres in Rajasthan so that disaster risk of marginalized communities that are the worst sufferers in disasters can be reduced.



Project locations in Rajasthan

### **1.3 Management framework**

The project was proposed by UNNATI organization for Development Education and funded by CORDAID.

Key strategy of implementation was the involvement of existing partners of UNNATI for field level implementation. The partner NGO's included Prayas, VSS, Jai Bhim Seva Sansthan, URMUL and IDEA. The Partners engaged with dalit communities and their representative structures such as the Dalit Resource Centres developed and nurtured over the years as community fora for pursuing redressal of violation of human rights in the case of dalits. The partners were supported in their work by UNNATI staff based in Jodhpur office that not only served management functions but also provided continued technical guidance to partners as well as communities for specific components of the project such as alternate construction technologies. Management oversight was provided by a lean Project Support Unit at UNNATI office in Ahmedabad that was responsible for quality assurance as well as reporting to the donors. In addition, Association for Stimulating Know how (ASK) was appointed by CORDAID to support the project in its evolution from a CBDRR intervention to a CMDRR programme. ASK is a capacity building organization, engaging with grassroots communities, NGOs, Government and Corporates to enhance thinking, reflection, learning and action to achieve equitable development and social justice. ASK is based in Gurgaon in the National Capital Region and was also in parallel similarly supporting other CORDAID partners. As the funder of the Programme, CORDAID office in the Hague and New Delhi not only provided the required oversight but also necessary support and inputs for developing the capacity of the partners in CMDRR.

UNNATI has had a long standing relationship with seven organizations in Rajasthan through which it works on dalit rights in the state for the last decade or so. When the project could only accommodate five of them for reasons of substantive focus and geographical scale, there was some effort required by UNNATI to manage its relationships with the partners. However as the programme developed and there was the need as well as space for involving the others in systematic CMDRR thinking, the partners could themselves understand the reason and value of partnership decisions that were made.

It was reported by ASK that UNNATI could have done with some more input on CMDRR process and methodology; however at the learning event organized as a debriefing occasion by the evaluators, it was felt that given the unique context of drought in Rajasthan and existing community structures facilitated by UNNATI over the years, interpretation of CMDRR activities and tasks was different from other CORDAID partners mostly working on rapid onset disasters such as floods.



## CHAPTER 2: KEY OBSERVATIONS

### Specific Objective 1: Build knowledge base on DRR from field practices and studies for use by Emergency Response Practitioners.

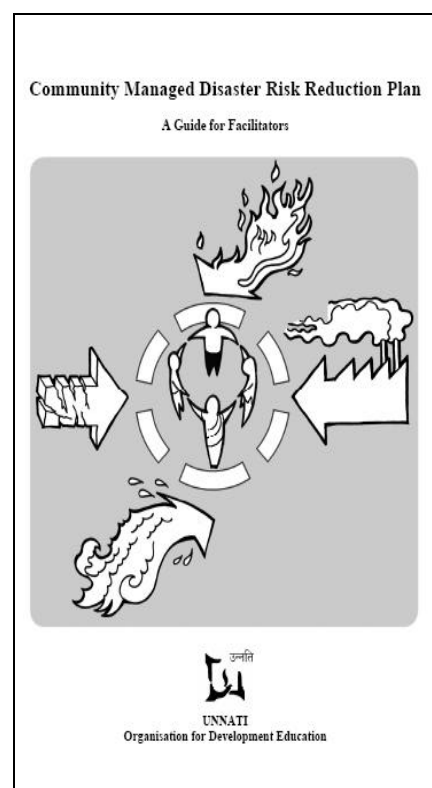
The project focused on building knowledge pertaining to DRR, covering two broad themes as follows:

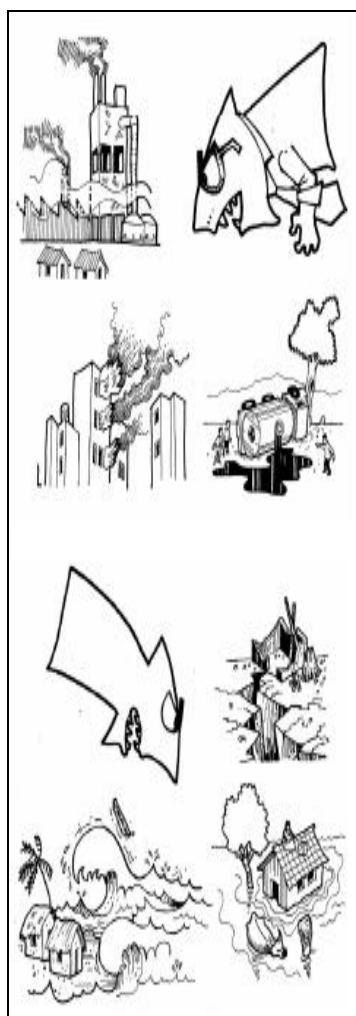
- a) Research Portfolio on Disaster Management Policy, Packages and Legislative Frameworks of major stakeholders from state, nation and even international levels.
- b) Capacity building in the form of modules and manuals, communication material, focused mainly on local stakeholders.

The major outputs in this regard are as follows:

#### a. Research Portfolio on Disaster Management Policy, Packages, Legislative Framework and Best Practices

- Study of disaster management policies, packages, legislative frameworks and best practices in Gujarat, Rajasthan and Andhra Pradesh states of India.
- Review of District level Disaster Management Plan (DDMP) for Jodhpur and Barmer districts in Rajasthan and, in partnership with district administration, consultations with related stakeholders for updating DDMPs.
- 'Study on status of Common Property Resources (CPR) and understanding solutions for restoration through documentation of best practices; focusing on Livelihood Security of rural poor with a DRR perspective.
- Booklet on health surveillance in post disaster situations as a reference booklet for DRR team members of NGOs, Government departments and other Humanitarian Aid workers
- Booklet on ferro-cement and concrete block making, which can be used for on the job training for technology promotion task forces.
- 'Owner Driven reconstruction policy framework for disaster rehabilitation' for the National Disaster Management Authority (NDMA) of Government of India.





*Tools for training of practitioners on DRR have been freely disseminated*

- Human Rights Standards for Post Disaster Response: A paper on International Human Rights Standards for Post Disaster Advocacy in the context of India.
- Housing vulnerability assessment framework in the coastal areas of Gujarat: An action research study was conducted in 9 villages of Porbandar district, identified as most vulnerable by Gujarat State Disaster Management Authority (GSDMA). The findings of the study were also shared with the CORDAID DRR partners of India during the partners meet at Pondicherry.

#### **b. Capacity building aspects**

- Development of training modules for master trainers on 'Disaster Risk Reduction' and 'Social Inclusion in Disasters': A noteworthy feature is that notes on debriefing are also provided to help facilitators conduct different sessions effectively. Capacity building inputs using these modules have facilitated development of 'Community Managed Disaster Risk Reduction Plans' in 6 villages of Gujarat and Rajasthan.
- Training on Disaster Risk Reduction for NGOs of Gujarat and Rajasthan was conducted. 7 partner NGOs and DRCs were supported on issues related to CMDRR in Western Rajasthan. Support was provided for staff capacity building and strengthening mainstreaming of DRR in their current work with vulnerable groups. 35 participants from 20 organizations from Gujarat and Rajasthan also participated in the training for NGOs for CMDRR planning and Climate Change Adaptation
- CMDRR training for India partners of CORDAID: 26 participants from 9 CORDAID partner working on DRR in India and GSDMA participated in this two week training programme. This training was hosted by UNNATI and conducted jointly by International Institute for Rural Reconstruction, Philippines and ASK India
- Set of visual aids on understanding vulnerability for disaster risk reduction: This material (Booklet + DVD) has been developed with the aim of providing a preliminary understanding about evolving concepts related to disaster risk reduction.
- Documentary film on innovative practices in India regarding Disaster Risk Reduction

- Booklet on methods and tools for Hazard and Risk Reduction: CMDRR plan at three locations were facilitated in Rajasthan and Gujarat. Based on the first hand experiences in the villages, a booklet explaining methods, tools and processes for facilitating the CMDRR plan at the community level was developed.
- Documentation of School Safety Initiative: as education material on innovative practices.
- Library and information support: a special section with books and reports on DRR was introduced in UNNATI's library. It is accessible to all local partners.

### Major Observations –

The major focus was on developing products based on UNNATI's own as well as other stakeholder's experiences in DRR

- The training programme conducted for the CORDAID partners on developing robust DDMP is reported to have motivated many partners to develop such DDMPs for their own working areas.
- The damage assessment tool kit has been reported to be very useful for local partners and can be shared with other stakeholders.
- UNNATI has been an active member of BASIN South Asia Network. The project was visited by the members and partners of the network from across the country as a good practice as part of the Lok Awaas Yatra.
- UNNATI also shared capacity building materials with TRINET, the knowledge network setup in Tamil Nadu after the Tsunami 2004. TRINET has translated the materials in vernacular languages- Tamil and Malayalam and have disseminated the same in their own working areas.
- UNNATI in collaboration with GSDMA promoted the Vulnerability analysis for shelter in Gujarat Cyclone Risk Management Programme (GCRMP) under the National Cyclone Risk Mitigation Programme of Government of India. This assessment was conducted in 9 most vulnerable coastal villages of Porbandar. This analysis was of similar nature as initiated by IIT Hyderabad for earthquake affected villages. Presentations were also made to CORDAID partners on the vulnerability assessment process and system, so they can start similar exercises in their own areas.



### ***Jetharam shares the story of his comeback***

*For the selection of Jetharam's family, a meeting was arranged amongst dalit families in the village. Through a systematic wealth ranking vulnerable families were identified. Jetharam's family was classified as one that was vulnerable but had a small plot of land that could be gainfully included in the horti-pasture pilot.*

*In the last 3 years, Jetharam has emerged as a proud owner of a developed horti-pasture plot. In the uncultivated area of the plot pulses like Moong, Moth etc. are grown and the quality of yield is much better.*

*Inputs such as fencing of have not only helped in protecting the plants but also inadvertently in regeneration of many indigenous species which had gone extinct due to the use of tractors. The private Tanka has made it easier and less laborious for small farmers like Jetharam to work their land.*

*Jetharam now acts as the local resource for other small and marginal farmers and advises them on how they too can use their land and time more gainfully.*

### **Way forward -**

In a post disaster context, local government develops relief and rehabilitation packages which are not pro-poor and often dependent on decisions made by the different gatekeepers. UNNATI has done a comparative analysis of such packages. The material can be proactively shared with related stakeholders to enable systematic development of package as well as standard procedure for actualization.

The learning for Vulnerability analysis can be scaled up and should be done in association with GSDMA in 170 multiple-hazard prone villages of coastal Gujarat

While the programme has indeed resulted in high quality and clearly relevant knowledge products, there was inadequate indication of a well structured knowledge consolidation and dissemination strategy that would build and strengthen links between different knowledge products in a targeted manner. Even at this juncture, the programme could benefit if training programmes and knowledge building process are articulated systematically. Strategic decisions such as how such materials would be used needs greater planning and clarity.

Similarly, the nature of knowledge products needs to be envisaged well in advance.

Keeping objective 2 in mind, more knowledge products can be developed, so that outputs of different objectives feed into each other's effective accomplishment. Strategy for sharing the knowledge products with media, government and other stakeholders need to be identified.

The programme "Strengthening community capacity on Disaster Risk Reduction in Gujarat and Rajasthan" focused on building knowledge base on DRR from and through field practices. One of the interventions was to introduce five different innovative practices for community based DRR, which could be institutionalized and used by emergency response practitioners in future.

**SPECIFIC OBJECTIVE 2: Five innovative practices for community based DRR are made available to repertoire of DRR practices.**

### **2 a. Pastureland Development for fodder security at five locations**

The Pastureland Development for fodder security was one of the innovative practices which were carried out in five locations in the programme area.

#### **Key Components -**

The intervention was envisaged to strengthen Disaster Risk Reduction component of the most vulnerable communities in partnership with the Dalit Resource Centre (DRC). Land development was understood as primary intervention under the DRR programme in the area. In the beginning, identification of the sites essentially half acre plots, and local partners based on pre-determined criteria was done. An initial orientation and capacity building programme was organised with the DRCs for block level community leaders on DRR and implementation of pastureland component. UNNATI and DRC provided rigorous support on technical aspects, irrigation (through water tanks), and monitoring considering the drought like condition in the field areas, along with capacity building inputs for the beneficiary groups.

For each location, detailed plan for the intervention was developed with communities and DRCs delineating roles and responsibilities of all actors, mechanisms for purchase, inputs and use of resources and tentative budget, indicating the contribution committed by the project and expected of the community.



*Gauri Devi from Aada Gala village initially got the soil from her field tested. Thereafter, she visited Phalodi field area of URMUL and also attended 3-day training programme in CAZRI. She was one of the ten women selected for the intervention and one of the three women who went to CAZRI for training.*

*In the first year, she planted 32 saplings of ber, 25 saplings of goonda, 06 karonda and 01 sapling of lemon. Due to drought like conditions in first year, there was need to irrigate the plot every week. In the second year, Guvar was introduced as part of intercropping. Gradually, Gauri devi started getting benefits by the end of 2<sup>nd</sup> year and 3<sup>rd</sup> year.*

*Gauri devi feels that such interventions are very helpful and increase the work hours marginally. She says that about 2 hours of extra-effort has to be made daily for the up-keep of the plants besides help from her family members. However, the benefits are immense in terms of fodder, fruits, vegetables and produce from inter-crops.*

### Achievements -

In total, 65 plots were promoted in 7 villages across five blocks in Rajasthan. In the first year, 38 plots were developed and participating farmers benefitted from the intervention. Farmers have also grown cereals and vegetables in the horti-pasture plots. Each plot was 1.5 *bighas* in size and in one village it was ensured that all the plots were in the name of women. The intervention was so well accepted by local people and well suited to local conditions that it is reported to have led to the development of a component under MGNREGA under the name of “**Kesar Vadi**”.

The strategy of allowing people to formulate their own micro-plans, as followed in the implementation plan, reiterated the well established fact that people-led planning is more sustainable and better accepted within the community. The intervention was able to introduce species which were locally growing and also well accepted by local community. The acceptance of such an intervention was thus high. Species such as Ber, Gunda, local fruit varieties, pulses like moong, and moth as well as sesamum were selected by the farmers. The leaves of such species were used as fodder and thus created a fall back mechanism for fodder requirement during water-scarce or drought period. The protection has also led to the regeneration of local grasses such as *sewan*, which acts as good fodder and were slowly disappearing from the local ecology. Based on the success of the initial model, plans have been prepared in one village to be submitted to *Zilla Panchayat* and Agricultural Department. These plans have already been ratified by the Gram Panchayat.

The intervention was able to strengthen the local capacities on horti-pastoral practices. Participating families have developed skills on grafting and a some of them such as Mr. Anoop Ram also have started functioning as local resource persons for extending voluntary support to even local government agencies.

One of the major environmental impact was revival and reappearance of local grass species such as *sewan* in the intervention areas.

Finally, the benefits accrued by the farmers were immense and at multiple levels and institutionalized a local system which acts as a fall back mechanism for local people for fodder availability as well

as benefit horticultural products regularly from such plots. The level of benefit can be understood from the remark of *Jetharam* (one of the participating farmer), where he says that benefit from 01 *bigha* of horti-pastoral plot is equal to the benefit from 10 *bighas* of regular crop.

Location	No. of plots	Plants planted	Plants survived	survival rate (%)
Phalodi	14	896	824	91
Kalyanpur	6	384	360	94
Shergadh (2 villages)	20	1280	1093	85
Balotra	14	896	832	93
Sindari (2 villages)	11	704	668	95
<b>Total</b>	<b>65</b>	<b>4160</b>	<b>3795</b>	<b>92</b>

**Status of the survival rate of plants at the end of the third year**

### Challenges -

The major challenge while implementing the programme was selection of the right project participants. During the field visit, in one of the cases it was observed that in a single village there were three horti-pasture plots. Though the quality and nature of input for all the three plots was the same, there was a marked difference in the final outcome for different plots. It was understood that farmers who were progressive (in terms of taking up of intervention) and the capacity to take risks were successful. This is crucial because initial success of any demonstration decides the extent of future acceptance by the community.

The intervention has been largely successful in creating a local system which will go a long way in local disaster risk reduction. The intervention has been well accepted by local people, as well as local government agencies and NGOs. However, experience also indicates that the disadvantaged dalit farmers, especially women, need to be supported in the initial years for the development of land and physical infrastructure for irrigation, which can be leveraged through MNGREGA and other programmes of Government and Non-Government agencies. UNNATI can take a lead to provide support in developing synergy between all these all stakeholders through appropriate policy influencing at the state level. To advocate for such an intervention, more demonstration plots in different ecological settings can also be tried.

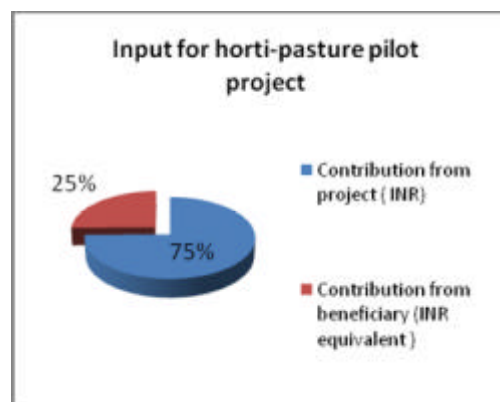
**Economics of Fodder, Water security and livelihood support through horti-pasture plots**

Horticulture and fodder plantation was undertaken primarily to assist the community to cope with the scarcity of fodder during drought conditions. Technical inputs like soil testing prior to plantation were provided to suggest specific measures for land development before plantation. Similar series of training and technical inputs were provided to the community for plantation as well as post plantation care.

**Input:**

- project support - provision of material for fencing, saplings, material for rain water harvesting tanks and technical support
- beneficiary contribution - land preparation, labour for fencing, plantation, watering and day to day upkeep of plants

Items	Contribution from project ( INR)	Contribution from beneficiary (INR equivalent )	Total ( INR)
Fencing	9,900	3,000	12,900/-
Plantation	2,000	1,800	3,800
Rain water harvesting Tanka	30,000	9,000	39,000
Other inputs : pesticides, water, technical support	5,000	2,000	7,000
<b>Total</b>	<b>46,900</b>	<b>15,800</b>	<b>62,700</b>



Details of plot development were worked out with the community. Primary plants chosen by the community were *ber* (*Ziziphus mauripiana*) and *goonda* (*Cordia myxa*), essentially drought and desert resistant varieties. Their leaves are useful as fodder for the small ruminants like goat and sheep. The fruit can be sold locally and can fetch additional earning. The community chose the variety with grafting which was meant to have more foliage as well as was fast growing. *Khejdi* (*Prosopis cineraria*) and *Sevan* (*Lasiurus sindicus*), a local grass is also grown. Scientists from Central Arid Zone Research Institute (CAZRI) and the horticulture department visited these plots and continuous feedback was given to these farmers. Moreover, the scientists themselves have affirmed that these plots have been very well maintained, which reinforced the people's confidence.

**Output:**

Since the plantation activity started in 2008, extra space left in the plots was used for regular agriculture and some grass was also available during rainy days. 2010 was the first harvesting from horti-pasture plots and the output over 3 years (INR equivalent as per market price) was as follows

Types of outputs	YEAR 2008	YEAR 2009 (drought)	YEAR 2010	Total output for 3 years	Rate	Output (INR equivalent)
Fruits	00	00	500kg	500 kg	15	7500
Fodder	100 kg	200 kg	1000 kg	1300 kg	5	6500
Crop	50 kg	Insignificant	100 kg	150 kg	50	7500
Crop residue	100 kg		500 kg	600 kg	5	3000
<b>Total</b>						<b>24500</b>

The beneficiary families interviewed believe that the work they are doing today is fostering a future of less risk and more resiliency in the face of drought. Resultant benefits coming out of this effort in terms of fodder for their livestock as well as an alternate means of livelihood have been appreciated by the people. After four years of intervention, these plots are expected to fetch an annual income of INR .15000-20000 (from fruits) and fodder for nearly 15 goats even during drought conditions. At the same time the remaining land can also be used for agriculture purpose. The intervention has also contributed to increased green cover, prevention and growth of bio diversity and 15 types of grass species which were on the verge of extinction.



**2b. Water access for dalit communities during drought period through 5 (4) community based water distribution mechanisms covering 1000 families.**

This innovation was developed in response to the exploitative process of accessing potable water that the dalits have been suffering in western Rajasthan.

**Key Components -**

- **Provision of hardware for servicing the water needs of the dalits.**

Access to water by lower caste families in the drought prone context of western Rajasthan has traditionally been a critical issue both from a development as well as an emergency perspective.

The project recognized that access to water for dalits was an issue not only on account of unavailability of water but more critically due to a lack of systems and hardware components for carrying the water to the homestead and storing it.

Initially the project had planned to procure five tractor tankers to address limited access to water supply run privately by upper caste families. This was a new activity in the context and the stakeholders implementing i.e. UNNATI, Partner NGOs and the community were unfamiliar with the nuances. It was thus decided to undertake a detailed feasibility and cost benefit analysis of the entire operation. It was decided that one pilot be initiated by UNNATI for first hand experience and observation by the partners. Subsequently three additional tractor tankers were purchased and deployed. The original target of five tractors was reduced to four due to the escalation in cost of tractor/tankers as well as request for additional farming equipment for financial sustainability.

- **Community involvement and NGO custodianship of the assets**

The tractor was purchased by and registered in the name of UNNATI. The tractor and other assets were transferred to the partner NGO on behalf of the Dalit Resource Centre (DRC)



*Water tanker being filled at the local water source*

against a legal agreement and a business plan. Clear responsibilities of the two parties entering into the agreement were outlined. All income and expenses were maintained in a Book of Accounts with proper registers.

In each benefitting village a committee was formed comprising of three women and two men. Responsibilities of this committee included-

- water distribution and recovery of dues as well as resolving conflicts
- Maintenance of tractor and keeping checks on the driver
- Cluster level committee was also formed and responsibilities outlined included operational aspects as well as proper

functioning of the tanker. The committee had the responsibilities of cluster level coordination of tanker.

#### ***Key highlights of the discussion with users of the tanker system***

*To understand and document the effectiveness of community tractor unit, UNNATI conducted interviews with users of the tractor-tanker system in Chava village of Sindar. The discussion essentially revolved around the difference they observed between community tractor service and private agencies service. Important extracts of the documentation are provided below:*

*Ramaram, owns 16 bhiga of agricultural lands in the village. Being a dalit, his request for tractor to private owners was never honored on time. There was a delay of 4-5 days even with advance payment for the service. With the unpredictable rainfall of Rajasthan this delay proved to be very expensive for him. Now with the community tractor service, he can get the cultivation done on time.*

*Gorakharam shared that being a small farmer, he was never given priority by the private tractors as they wanted to serve richer famers with larger land holdings. Kesaram who only has 6 bhiga land shared a similar story that timely cultivation to match with the rains is very important for the sandy agricultural farms of the area. He told that by having the community tractor this year, nearly all small farmers managed to get the tractor for cultivation on time. He shared that he had never got more than 50-60 kg Bajara from his plot but this year, to his surprise, the yield has been 200 kg. While the rainfall itself was timely and sufficient, timely cultivation has also had a major role to play in achieving this result.*

*Gorakharam added that he had managed a yield of 175 kg Bajara, 75% higher than average yield earlier. He added that a delay of even 24 hours decreases the yield by 50%.*

**Tractor operations and business plan**

The key points of the plan derived from the agreement between UNNATI and PRAYAS were:

- The driver was selected by the local NGO Prayas
- Receipts against delivery of water at village were deposited back at the Chava centre of Prayas at the end of each day. A copy of the receipt was maintained at the respective village. In addition each village maintained a register for maintaining account of the tractor of the tractor.
- The entire records of the tractor as well as report maintained at the Siddhari centre of Prayas.
- A schedule was worked out that detailed member of tanker visits per village per month. On the basis of this schedule, detailed monthly income and expense sheet drawn up.
- Operational details such as drivers details, details of service centres etc. were maintained

**Responsibilities of the village committee-**

- Inform dates of tanker visits to the community and draw up list of families making use of the services.
- Ensure that receipts against payments are made and delivery challan is given to the tanker driver.
- Ensure that the tanker trips are planned
- In case of additional requirements of water in the village, inform at the cluster level so that additional water is arranged.
- Ensure that the register with account of the tractor is maintained and reviewed in timely manner.
- Monitor timely delivery, whether proper speed is being maintained and to address any complaints or suggestions from the community

**Responsibilities of cluster committee**

- Ensure timely visits by the tractor in coordination with visit to other villages.
- Selecting bigger additional tankers to fulfill additional water needs
- Maintain accounts of the bigger tanker.
- Monitor maintenance and upkeep of the tanker and tractor
- Monitor expense on diesel
- Maintain all documents in a timely manner

**Responsibilities of the NGO Partner**

- Make timely payments to the bigger tanker and water source owner
- Maintain a beneficiary list based on wealth ranking
- Take accounts from the cluster committee every two weeks.
- Monitoring and review weekly
- Pay salaries of the driver
- Ensure availability of fuel
- Make sure that beneficiary list is available at cluster and village level
- Ensure timely servicing of tractor, payment of insurance premiums, road tax etc.
- Timely reporting to UNNATI
- Ensure that all documents are maintained at the village and cluster level.
- Review of tanker charges from time to time.

*In the discussion with the community and project staff, it emerged that during the last 18 months, one unit of tractor tanker could serve about 250 dalit families in a cluster of 3 to 4 villages. Given the total investment of Rs 585500 on the entire hardware purchased (tractor, tanker, cultivator and trolley) per family investment is estimated at Rs.2340.*

*While it is too soon to conclusively estimate money and time saved, people reported a saving of 2 days/ per month for arranging tractor and follow up. In addition, safe and timely drinking water at their doorstep at Rs. 50 less than the market price is almost like a "lottery". Women managed to save about 3 hours per day spent on collecting water. This time is now used for managing their daily chores more comfortably such as looking after their cattle, washing clothes, bathing or working their own land without depending on others for help. Time saved is also allowing people to take up extra days for NREGA.*

### **Achievements -**

- **Dalits got access to water**

Rajasthan is one of the most water scarce states of India. Not only is water availability stressed, access to water is severely affected by caste dynamics. The dalits have limited sources to access water from and many of these sources are managed by the upper caste. In situations of droughts/dry spells, access is further limited as availability of water is reduced. In addition, water prices go up, further limiting access by the poor. The project devised a supply system specifically targeted at the dalits.

- **Asset creation by a traditional marginalized and highly vulnerable group of people**

The project made available, a visibly valuable asset to the dalit community which not only built their self-image, it has also amply demonstrated the value of coming together for leveraging resources. Access to such an asset was reported to be a majorly empowering process also impacting the dynamic between the traditionally powerful and the powerless!

- **Saving of money and time spent on procuring water**

During the field visits, the evaluation team learnt that while there was a saving of Rs 50 per family per tanker of water supplied, there was a reduction of waiting period by about 2 days before a family could get water. The time saved has reportedly translated to additional workdays under MGNREGA as well as less stress in completing household chores.

### **Challenges –**

- **Limited sources of water for filling the tankers**

Although the project had planned to reach 600 families of 23 villages but in practice only 355 families were reached. At the outset it was assumed that the water sources for filling tanker would be easily available because government was also supplying water from the piped water sources. However during the acute phase, local sources had dried up and sources farther away were accessed which proved to be very costly and affected tanker based supply.

- **Skills and attitude for sustaining water provision system**

While the tractor tanker based water provision service is not explicitly as “profit making” enterprise, financial sustenance of the system is a critical factor in the strategy for longer term effectiveness of the system. Crucial elements in working out the financial of the strategy/business plan are – salary of the driver, realistic pricing based on the distance to the *dhanis* etc.

It was reported that private tankers charge more for remote *dhanis*, based on a quick calculation of the distance and therefore time and fuel cost involved. The project tractor- tanker, on the contrary operates on a fixed cost which can only be modified through an elaborate process of approval of the water management committee, affecting the financial viability of the service. Moreover some of the members of the water management committee are dalits living in remote *dhanis* and their own interest in keeping the service charge low affects decision making.

- **Competing with and challenging mainstream players**

The parallel system created for supplying water to dalits was perceived by mainstream water supplies as a challenge to age –old structures that controlled access to water as well as pricing. The new system setup by the project altered the power dynamics reducing the dependency of the dalits on upper caste families for meeting one of their most fundamental needs-water.

A couple of instances were reported where the drivers of the tractor-tanker were beaten up by the private tanker operators. They were also denied access to water at source by the private operators who indeed continue to dominate the scene. These instance were a reflection of the dalit tractor- tanker system being perceived as a symbol of empowerment and increased well- being of the dalits as well as a loss of business for mainstream operators.

- **Long term financial viability of the system**

The tanker enterprise pilot has thrown up interesting lessons in business modeling of such a venture that seeks to provide basic services to a small group of needy population.

Since the target population for the service is a small group of people, the revenue generation through water provision is also small. In any

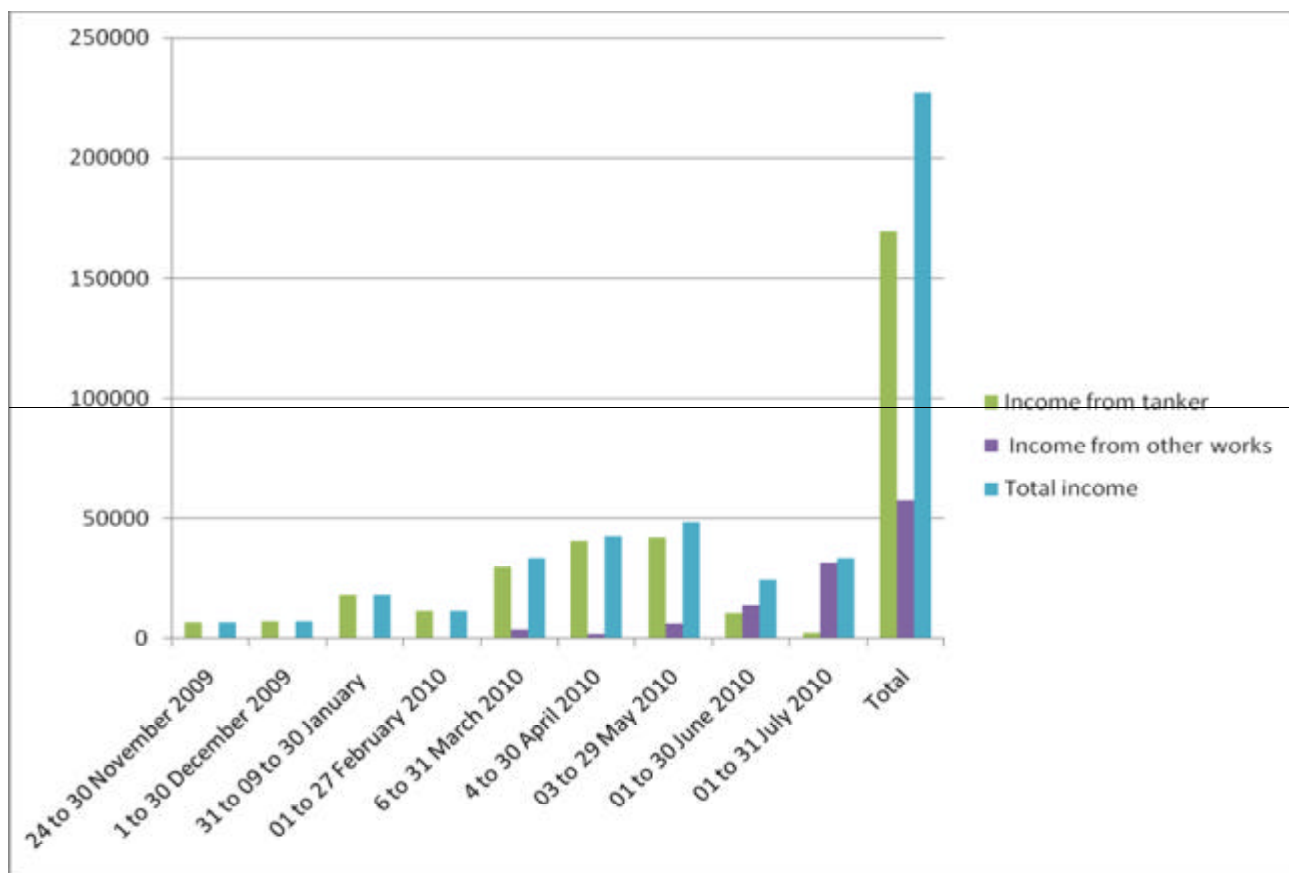
case, the tariff charged is lower than that charged by private suppliers. To make the service available for the future, the tanker/ tractor has to be maintained and a full-time driver retained to make the service available as and when required by the target community.

By implication, this led the team managing the enterprise to look at ways and means to sustain the enterprise. After a lot of internal deliberation they started making the tractor available to dalit families for farming as well as for transportation of heavy materials such as locally quarried stones.

A closer analysis of the records provided by UNNATI over a ten month period indicate that during cultivation season, when adequate water is still available, revenue from cultivation is substantial (25%) and forms a critical component for financial viability of the enterprise over a 10-12 month period.

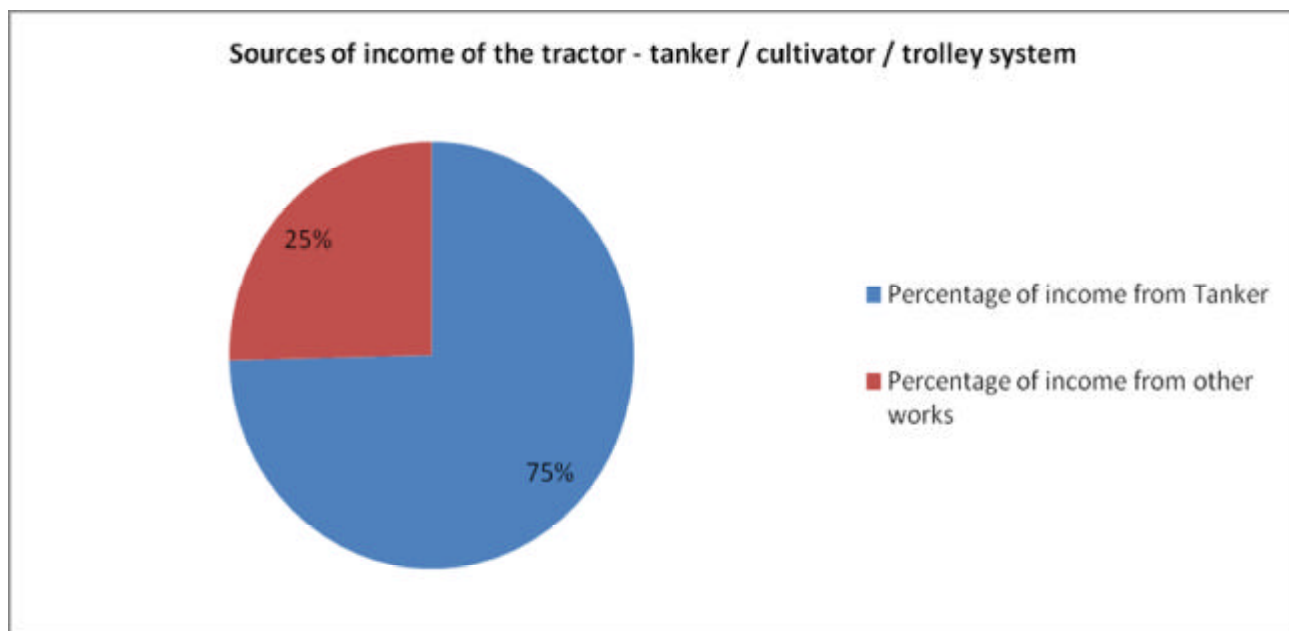
<b>Duration</b>	<b>Income from tanker</b>	<b>Income from other works</b>	<b>Total income</b>
24 to 30 Nov 2009	6700	0	6700
1 to 30 Dec 2009	7050	0	7050
31 Dec to 30 Jan 2010	18050	0	18050
01 to 27 Feb 2010	11750	0	11750
6 to 31 March 2010	29800	4000	33800
4 to 30 April 2010	40700	1800	42500
03 to 29 May 2010	42300	6350	48650
01 to 30 June 2010	10700	13837	24537
01 to 31 July 2010	2250	31550	33800
<b>Total</b>	<b>169300</b>	<b>57537</b>	<b>226837</b>

**Record of income of tractor – tanker from various sources**



Record of income of tractor – tanker from various sources

It is also important to note that revenue from water services alone during dry season are also about 75% of the total revenue during the same period



## **2c. A trained pool of 100 artisans is developed on appropriate and disaster safe housing**



*Hamare gaon ki mitti se hamen rozgar mila, and nayee building ki suvidha bhi mili...*

*(the earth from our village gave us a livelihood as well as the facility of this new building constructed with soil blocks)*

*- Shayama Ram in Bhillon Ki dhani Ekdali village, Balotra Block*

The project sought to build the capacity of local masons and artisans on constructing buildings that are safe and are environmentally efficient. To start with, the technologies included earth block construction and concrete block construction in addition to basic safety features for seismic performance of buildings. However, as the project progressed, additional technologies were identified and included. During the drought in 2009 – 10, water storage structures were also built for the extremely poor dalit families selected by the VDCs. The masons were thus provided an opportunity for constructing safe habitat components in the disaster risk context of Rajasthan.

### **Key components -**

- **Organizing skilled masons at the cluster level**

A study was undertaken on rural housing in western Rajasthan early on in the programme. Based on the outcomes of the study, masons were organized as a group at each cluster with regular trainings on housing safety. Monthly knowledge sharing meetings were organized at each location and issues relating to safety features in construction were discussed during these meetings.

- **Capacity building of construction artisans**

During the meetings, capacity building needs of masons were discussed and opportunities for putting up demonstration structures were sought. In one instance, as a part of relief provided to a dalit family whose house was burnt by the upper caste, the house was reconstructed using alternate technologies. Thus masons were trained on-the-job through such opportunities.



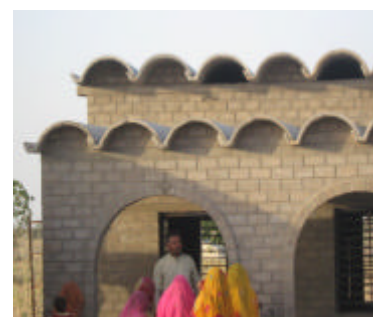
UNNATI staff members also attended an 'orientation on various types of roofs' organised by Development Alternatives and basin –South Asia, a prime resource pool on alternate technologies. People trained through this exercise organized a workshop on the same subject to orient the masons in the project field area.

A quarterly newsletter "*Karigaron ki baat*" was published that focused on technology solutions as well as key concerns of the masons themselves such as personal insurance.

### Achievements

- **Continuous knowledge development and follow up with trained manpower**

Not only masons, but even artisans doing woodwork in thatch houses were made a part of the mason's group. Discussion and interaction in the monthly meetings covered not only technical matters on disaster safe features in building construction but also matters relating to government schemes for insurance and pension.



*Community centre building at Chava*

- **Transparency in operations and procurement**

5000 liter water tanks were constructed for storage of water for the drought season. For this purpose, a Purchase committee (PC) was constituted from among the VDC members. The PC collected quotations from the local parties and made purchases of construction material based on comparative analysis. Both the PC and the VDC were involved in monitoring of construction visits to the *tankli* locations. This ensured transparency in the works being carried out with the involvement of the benefitting community.

### **Challenges**

- While masons training in disaster resistant construction technologies are one of the key achievements of the Project, meaningful aggregation of the masons groups is critical for sustainability of the mason's groups.
- Acceptance of the new technologies has been slow. Market forces promote the use of other materials that may be environmentally and energy inefficient but easily available in the marketplace.
- Disaster safety continues to be a fringe priority for people during house construction; the additional cost of incorporation of the disaster safety features serves as a major deterrent.
- Although the region has high vulnerability, earthquake resistant features have few takers as the region has not had a major earthquake even though small to moderate earthquakes have been felt in the state in recent times.

## **2d. Develop understanding on government health services and systems developed to monitor government health services.**

- **Key Components**

This innovative practice envisaged the Project to develop community based systems for monitoring Government health services. The rationale behind this was to enable the targeted communities access their rights and entitlements in this regard. As a logical step, the Project made endeavours to understand Government health services. To build stakes and capacities at the community level, identification of women para health workers, training and supporting them at the initial stages had been the major interventions. The training of para health workers covered issues such as reproductive health, women's general health, child care, breast cancer, water born diseases, Malaria, Tuberculosis, health monitoring and linkages. This helped them prepare action plan.

Besides human health, veterinary service was another key component, under this Programme.

The major strategies to accomplish outcomes were building awareness, establishing and strengthening linkages.

- **Achievement**

30 women para health workers were identified from project villages, which was an ideal strategy for sustainability. A series of intensive orientation and basic training were organized for them, based on which every one of them prepared action plans. The trained health worker took initiatives to organized health camps in their respective areas in collaboration with local PHCs and also initiated other activities based on their action plan.

The project had initially planned to address health related needs of the people through mobile clinics and on-call health services. Given the government efforts in this direction, the project decided to focus specifically on the health needs of poor families both the



*Meeting with community members in Shergarh*

peace-time development context as well as in the emergency context such as epidemics triggered by extreme weather conditions. The focus was more on linking the participants to PHCs and CHCs, rather than organizing health camps. Consequently, 14 health camps were organized against a target of 21.

Project also ensured that the gender balance is maintained within the micro interventions. For instance, five women have been incorporated in the health Committee, which is a pro-active step towards gender sensitivity. The project was also able to successfully motivate the ANMs in a few villages to attend the VDC meetings and this has been regularised. There has been change in orientation towards health services and people are more willing to get pathological tests done for proper diagnosis.

The project was successful to some extent in linking the targeted community with local health services. It got demonstrated through availability of mobile numbers of ANMs with many community members.



*Meeting with community at  
Chava village*

Regarding linkages for veterinary services, the Project adopted camp approach as some of the target villages are located quite far from the dispensary. This gets reflected through organization of 64 camps against a target of 14. A remarkable achievement was that it helped in improving health seeking behaviour among community for their livestock. The camps also helped in building linkages with Government staff.

- **Challenges**

The major challenge faced in implementation phase was reporting done by ANMs. In case of institutional delivery, ANM has done registration and the case has been shown as actual institutional delivery.

Moreover, there were several vacant positions in the health service centres. The non-availability of Medical Officers in Government health services result either in no or inadequate treatment as patients have to depend on compounders.

- **Way Forward**

The project has been able to generate local human resources, who are crucial links for accessing health services. The community should be oriented on the aspect that health issues at personal/family level can impact their life statuses drastically. Further, the local government line department should be oriented to consider poor health status as events which can be disastrous both at family as well as community level. Hence, more focus should be provided on prevention aspects.

In future, more focus can be provided on psycho-social support and creating resources as DRR. Finally, effective use of monitoring system for health and other basic services should be in place and it should be community driven.

## 2e. Disaster Risk Transfer Coverage through Insurance –

### I) Key Components

Disaster Risk Transfer Coverage through Insurance was one of the five different innovative practices for community based DRR. The intervention envisaged to strengthen Disaster Risk Reduction component of the most vulnerable communities through risk transfer by insurance. The primary focus was on generating awareness about health, life and asset insurance risk transfer schemes amongst the community which faces high risk of epidemic and other hazards. Initially, the primary focus was on a combo product, but later on it was segregated into separate product for each type of risk. The project successfully collaborated with SEWA for more effectiveness and linkages to the pro-poor products by Vimo-SEWA. Under the initiative, promotional workshops, exposure visits, yatra, and village level meetings were conducted and resource material distributed in the field areas to generate awareness within the community.

### II) Achievements

The primary focus of the project was not on number of people taking insurance but was more on developing the understanding of community on insurance as tool for DRR and risk education.



*“...Log aksar kehte hain. kya Karen nasseb hi aisa hai, hum kya kar sakte hain? Agar hamara sab kuchh lutna hoga to use hum rok to nahin sakte.”*

*People often say, what can we do, it is our fate. If we are destined to loose everything, we can't prevent it.*

*Sewa ram, a community member at Ramdev pura, Mandhi Gram Panchayat, Barmer*

However, within the project period, 1074 families covering 5400 members were linked with health, asset accident and life insurance. The coverage was for all the members of a family. Moreover, 39 claims were filed and received, which includes 37 claims under health insurance and 2 claims for asset loss.

Besides this, a total of 1050 members were covered under life insurance policies.

### III) Challenges

The project made lot of efforts in raising awareness of the products promoted in association with SEWA. However, the community is unable to take insurance as a vehicle for risk reduction. The community still considers insurance as a saving vehicle and currently not much interested in the products floated by SEWA. Another challenge faced was the renewal system of the policies, as it has to be done annually. The policy holders are not able to appreciate that the premium paid in one year lapses and premium has to be paid again next year.

### Way Forward

The intervention has been able to make some dent, though not enough in relation to the targets, set for this component. In order to capitalize on the interventions made under the project, efforts can be made for changing the attitude of community towards insurance as a risk mitigating vehicle and not only as a means for saving. The insurance product can be tailored to suit people's need and thus has to be re-established as a people's product. The best experiences (*of beneficiaries within the project*) should be documented as audio-visual materials and shared with community for wider reach and impact. Similarly, experiences of SEWA can also be shared with the project villages through audio-visual format.

Finally, the intervention should be driven by the People's institutions such as VDC and DRCs and not by the Agents, which currently is happening

#### **Addressing Corruption in Cash Support through Community Based Monitoring**

*In one of the villages in Pokhran, 130 vulnerable families were entitled to cash support of Rs. 600 from the Government. The Patwari distributed Rs. 400 to each household separately, explaining that Rs. 200 was spent on his conveyance to reach their village.*

*When the drought monitoring committee met subsequently, it was revealed that the Patwari had managed to pocket Rs. 26,000. When the committees took this up with the Patwari about this sum of money, he apologized and returned the money to each household.*

*- reported by UNNATI and partner NGO staff*

### 3. Other direct interventions under the project – Response to Drought in 2009:

During the course of the project, there was severe drought in the year 2009. CORDAID and UNNATI decided to respond to this, though it was not a part of the Project design initially. The following interventions were carried out as response measures:

#### ***1. Supply of drinking water to the vulnerable and construction of rain water harvesting tanks (Tankas) for the poorest of the poor:***

The drought resulted in increased rates for water supplied through private tankers. Government too supplied water through tankers but demand was much higher than the supply, resulting in irregular and insufficient water supply. The Project personnel also observed that the poorest of poor did not have any storage capacity to store water even if they got access to water. The Project, therefore, focused on such families. The support was in the form of helping them in the construction of small water harvesting structures and supplying drinking water to them as well as other poorest of poor.

A total of 355 most vulnerable families were provided with drinking water under the initiative. Three tankers of water were provided to each household during the critical months of March – June. Similarly, after vulnerability assessment and beneficiary selection, a total of 97 families were provided with small tanks for water storage facility in their courtyard or backyard. The design of the structure was developed in consultation with the respective beneficiaries. The VDC was instrumental in purchase of material, monitoring and ensuring quality and timeliness. Beneficiaries also contributed in terms of labor (in digging and preparing catchments).

**Benefits** – Following benefits were reported by the beneficiaries and other stakeholders -

- a) Availability of water has reduced daily drudgery and humiliation for the women and girl child who otherwise had to go out and arrange for water daily from far off places.



*Household tanka constructed under the project*

- b) The supply of water has also reduced the financial burden of the vulnerable families and they can go out for employment.
- c) The water supplied to the poor families helped them not falling in debt trap for buying water and rendering them poorer.
- d) The construction of small tanks has enhanced the preparedness of the poor families for water scarce or drought period.
- e) The poor families can also use the tanks to harvest water during rains.



“agar ek ungli badi ho to ek chhoti reh hi jaati hai, nigrani sabko karni chahiye, humne ki to iska fayda mila....”

(if one finger is big then one will be small in any case, every one must be involved in monitoring of relief and response provision, we did it and got the benefit of the same....)

-Community member at  
Ramdev pura, Mandhi Gram  
Panchayat , Bramer

The process followed for the selection of beneficiaries by the community is highly appreciated. Moreover, availability of small water harvesting units with very vulnerable families has not only resulted in them having an asset but also ensures women’s safety and reduction in their drudgery.

### **II. Providing Fodder for Small Ruminants Mainly Goats**

The communities in the project are poor and own small land units. Most of the families also rear goats as an additional income support. However, they faced huge challenge ensuring fodder during the month of March to June in the drought year. During this period, fodder was not even available from market and pasture lands. Therefore, to tide over the drought situation, dry fodder was provided to the most vulnerable households for three months. The support was provided to those vulnerable families who have around 5 goats, and run the risk of distress selling. The basic objective was to reduce such distress selling. The project ensured to the supply of quality fodder for easy acceptance. Along with fodder, precautionary medicines were given as suggested by the veterinary experts. A total of 334 families received three rounds of fodder supply. Each round consisted of 7.5 Kilogram of fodder per goat.

#### **Benefits –**

- a) The support helped the families to tide over the drought period.
- b) The support also reduced the distress selling of goats.
- c) This intervention has brought goat rearing, as security against drought, in prominence. Most of the responses to drought neglect this. This can be a good advocacy issue for responses from both Government and civil society.



### III. Monitoring of Drought Relief Services Provided by Government

Drought Relief Services, initiated by Government of Rajasthan, focused on employment generation (through NREGA), ensuring drinking water, fodder and direct food / cash support to the most vulnerable. However, the programme was not inclusive in its nature and often dalit and women were left out from accessing the services. In this context, a process was initiated under the project to facilitate community based monitoring of drought relief services and enabling all levels of community to access the relief services. A total of 85 villages from 9 blocks in three districts were covered under the initiative. The initiative was able to collect monthly data on government service's reach, quality and regularity by community members. The data was analysed at village and block level and accordingly shared at different forums such as government officials, and media. This process was initiated from January 2010 and continued till June 2010. Regular data collection and sharing with authorities helped in the advocacy to enhance quality and frequency of the services in the villages.

#### Benefits –

- a) The monitoring (by people) ensures that exclusion and discrimination doesn't happen in the relief and services distribution. 310 families were identified and included in the governments list of most vulnerable. They got support of INR 600/- per month as drought relief due to these efforts.
- b) It also helps in sensitizing the government department so that dalits and women are not excluded from any programme. 25 fodder distribution depots were started by the authorities after initial meeting with the block authorities
- c) Water distribution points in the Dalit hamlets (*Dhanies*) were started and water provided in the 25 villages.
- d) The capacities of community members have increased to get the service with dignity and quality.
- e) Employment works were started at the 50 locations under National Rural Employment Guarantee Programme in the 30 villages as a result of sharing of data with district officials.

*“We used to monitor relief provision earlier as well but this time was different. This time it was community, in a way leading the process as they were the key people keeping a watch on what was being provided, when and whether it was reaching the right beneficiaries at all...”*

- Kirit Parmar, UNNATI

This exercise, though not still completely managed by community, has brought issues of dalits in the mainstream, besides building capacity of these social groups to negotiate with Government functionaries. A noteworthy feature was that Government officials too not only liked the process and data generated but also put the same in use and put this process in other affected areas where Project was not being implemented.

#### ***IV. Malaria awareness campaign***

The vulnerability to malaria in some of the villages in the project area has been acknowledged by Government as they have already identified some villages as dark zone villages for malaria. The Project area had generally witnessed increased incidences of malaria whenever a good monsoon followed a drought period. Incidentally, in the year 2008-09, due to drought situation the chances of malaria outbreak were high in the region. So, under the project, initiatives were undertaken to prevent an outbreak of malaria locally. The village committees and task forces planned two strategies- one was creating a blanket public awareness and followed by the concrete action on preventive and cure measure with help of local government health centre and malaria health workers. Taskforce members and women para health workers took initiatives for both the actions. Awareness on malaria and health issues was developed through cultural programmes such as songs and skits. After the cultural awareness programme, task force members, para health workers and local government staff took blood test of sick persons, gave tablets to add to the water tanks and putting DDT for prevention. Household level cleanliness was also promoted to prevent malaria. Community has responded well to the campaign.

*The details of the programme are as follows -*

Cluster	Villages covered	Coverage in awareness campaign ( persons )	School children coverage	Temophose liquid applied for preventing mosquitoes ( water tanks)	Precautionary medicine distributed ( persons)
Phalodi	4	385	55	225	44
Shergadh	5	158	47	556	37
Sindri	5	220	425	367	10
Kalyanpur	4	1075	153	167	76
Balotra	2	1328			
<b>Total</b>	<b>20</b>	<b>3166</b>	<b>680</b>	<b>1315</b>	<b>167</b>

#### **Overall Impact of the drought response initiatives –**

- a) The four different initiatives (as discussed above) were able to make the people realize about the importance of DRR initiatives and thus enhanced the acceptability of other interventions made by the project. They were able to understand how risk mitigating measures can help them by increasing their preparedness and resilience during any disaster and especially droughts.
- b) Progress of the initiative on ground and its acceptance by people enhanced the understanding of the team on the issue and encouraged.

## CHAPTER 3: Conclusions and recommendations

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UNNATI as an organization has years of experience in addressing the social determinants of disaster risk. The CMDRR project was designed as a capacity building initiative for dalit communities, NGOs, CBOs & PRIs on CBDRR through field practices & knowledge building in western India. It was assumed that if the pilots succeed, then many stakeholders from diverse backgrounds can draw learnings from them.

### 3.1 Achievements against committed targets

As a capacity building initiative, it is amply clear that the project has achieved much in the following ways –

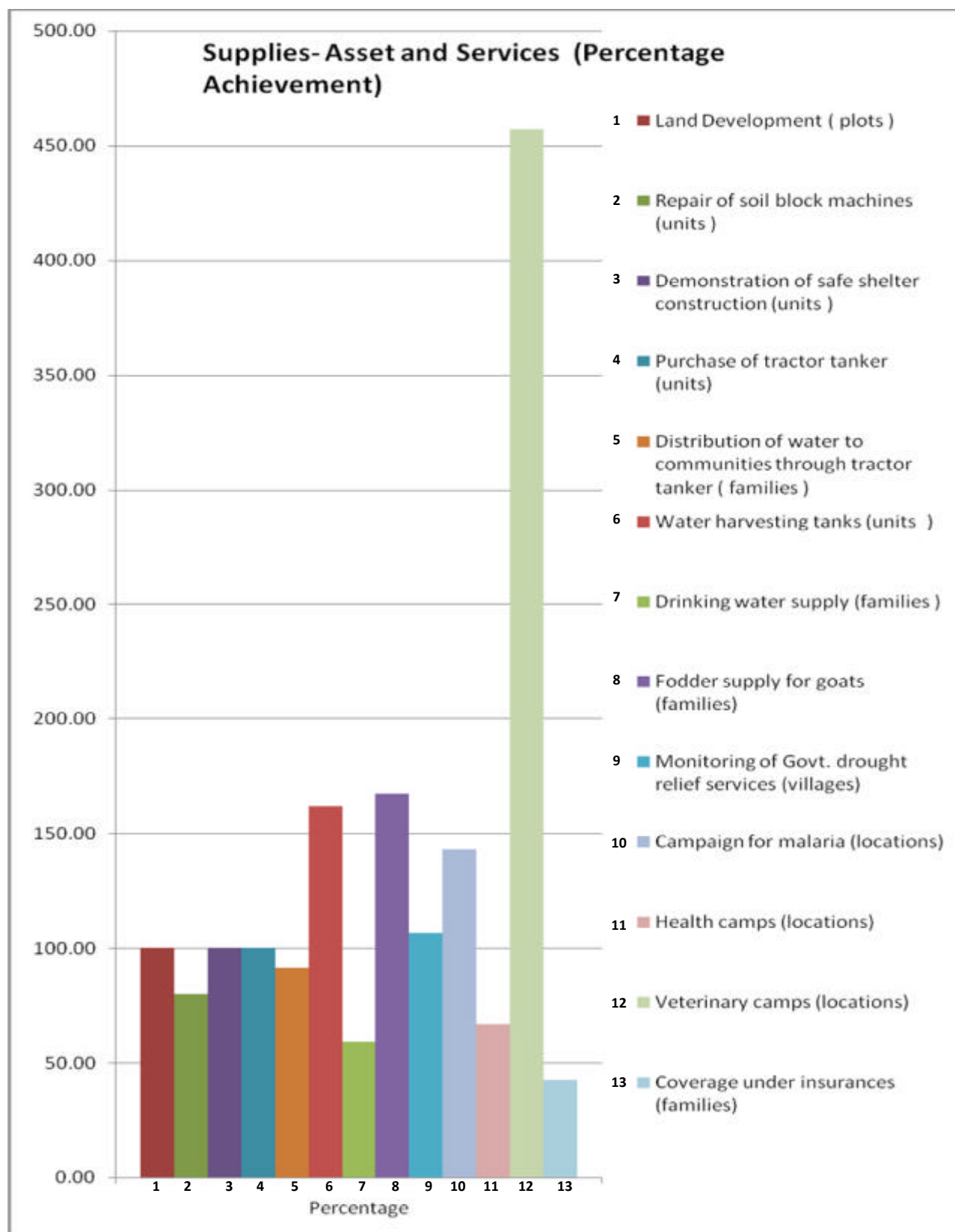
- Awareness creation on Disaster Risk and risk reduction measures amongst representational structures of dalit communities, CBOs, NGOs & PRIs in Western Rajasthan.
- Access to simplified technical solutions for specific user groups farmers, artisans, goat rearing families etc.
- Knowledge creation on DRR proactively on various themes for wider application/use as well as with an “action oriented learning” approach to create knowledge as the project progressed.

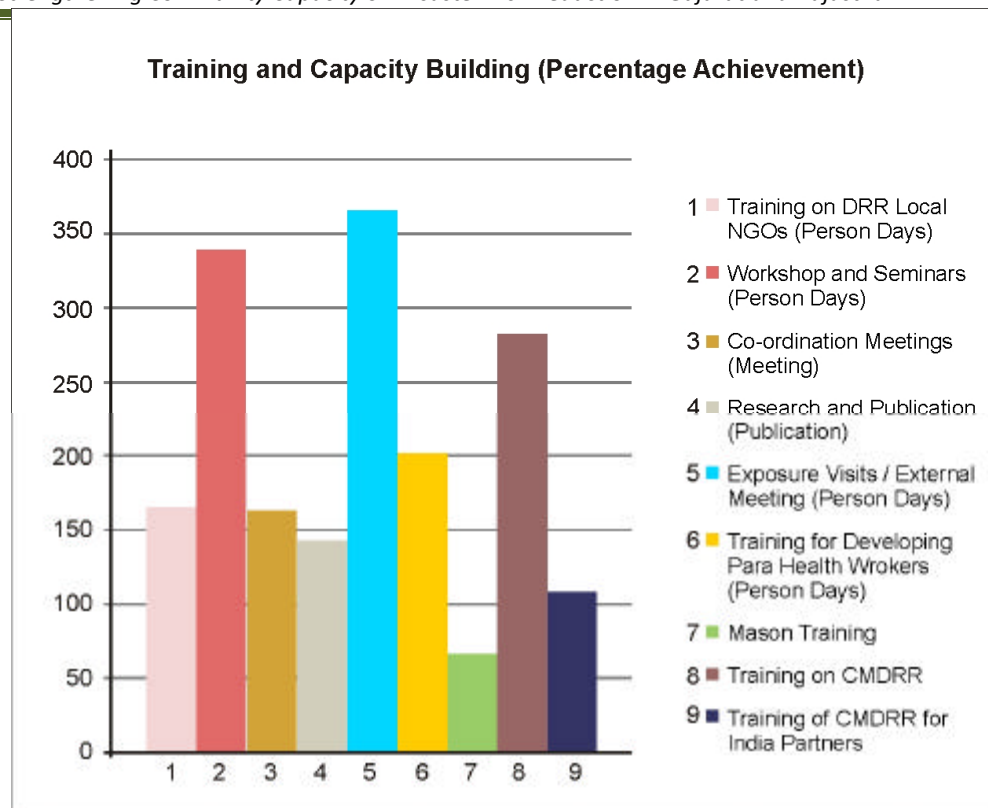
In terms of tangible outputs committed to the donor, the project has fared well on some deliverables while there have been shortfalls in few other deliverables. The charts on the following pages capture the achievements against committed outputs.

However, an area of concern has been limited building of knowledge products in the context of drought, in comparison to the scope and potential this Project. The linkages between knowledge products developed and demonstration of innovative practices were not established. It gets confirmed through absence of structured documentation and dissemination of the innovative practices, which was one of the key result areas expected from the Project.

Of the innovative projects under specific objective two, the deliverables with regard to demonstration of safe and alternate technologies as well as the one with regard to risk coverage through insurance, have been partially met. This could be attributed to the short duration of the project working with extremely financially weak segments of the population for whom “living with risk” is part of life and investing in risk coverage – either for strengthening buildings or for purchasing insurance is not a priority.

### Achievements against planned Targets (Quantitative - percentage)





### 3.2 Sustainability of project interventions

The project is a unique intervention that has sought to reduce disaster risk of a socially and politically excluded community.

In its limited timeframe the project sought to pilot diverse initiatives for comprehensively addressing disaster risk of dalit families in western Rajasthan. It therefore intervened at the grassroots with Dalit communities and their representative structures as well as policy makers although in a limited way.

Through this process, the project has managed to achieve a **fair degree of success in building a constituency of critical stakeholders** engaged/interested in reducing drought risk of communities particularly those that have been traditionally marginalized. These comprise of the VDCs and/or DRCs themselves, partner NGOs, government officials and departments. Dalit women and men from the project villages particularly those involved in VDC meetings, in their interactions were seen to be actively aware of their entitlements and motivated to access them.

**One of the biggest highlights of the project in this regard has been the capacity created within the dalit community to objectively identify the most vulnerable households within the community and the motivation (and empowerment) to prioritise their needs in order to survive drought. This is certainly an exemplary achievement of the project.**

Similarly, during the interaction with each partner NGO, (each of them with a much greater outreach beyond the project villages) an increased understanding on drought as a disaster and related risk reduction measures were highlighted as one of the critical building blocks for future work. 1-2 of them have been pursuing proposals for expanding CMDRR work beyond the project villages with other donors as well.

Similarly through its interventions in relation to knowledge building and consolidation, the project has been able to effectively engage with policy environment at the local, district level and at the national level with regards to DRR in the context of drought. These processes together, have been most effective at the local level where links between the government service providers- health officials, vets, farming resource agencies- CAZRI/KVKS and others have been established as well as strengthened. Through an active community engaged in this kind of leveraging, a sound base for sustaining some of the interventions has been established.

### 3.3 Challenges

- **Programmatic - Comprehensive nature of the project covering several sectors in an ambitious timeline**

The project had two result areas: One, in relation to knowledge development and training on several aspects of disasters of various types and two, in relation to tangible aspects of drought risk reduction: development of horti-pastoral activities, access to water, availability of construction workers trained in safe and alternate technologies, access to health services and insurance.

In a limited span of 3 years, intercepted by a severe dry spell in 2009, the project took on the challenge of working on these sectors, many of them new to UNNATI and its partners and few of them new to dalit communities as well. It is important to note that upto a certain scale, the degree of input required is irrespective of the number of households to be covered. In this sense the project was indeed an ambitious attempt.

- **Contextual challenges**

The context of western Rajasthan is extremely challenging, characterized by extreme weather conditions, remote location of hamlets accessed through difficult sandy terrain and severely limited transportation options. The teams of partner and UNNATI staff need to be complimented for their commitment to work despite these conditions.

In addition, the social context of Rajasthan is equally challenging characterized by deeply rooted caste differences practically visible even in dealings with a wide range of stakeholders. Participating families, mostly illiterate and that have for ages, "lived with risk" had initial difficulty in reposing faith in innovations such as horti-pasture development. Understanding of risk has improved as

people have learnt with their own experience that “something can be done” to minimize losses such as vaccination of cattle, health care of children etc. However when it comes to financial investment for instance insurance, risk perception continues to be low primarily due to limited financial surplus at household level.

- **Strategic/ management**

The project is located in Jodhpur and Barmer, two important districts of Rajasthan. However these are not the seat of government in Rajasthan. Thus the project has been able to engage with policy processes at the village, block and district but in a very limited way at the state level.

If the intention was to focus on issues of dalits affected routinely by drought, even then there has been extremely minimal engagement with this kind of beneficiary group in other states. This has been a limitation in project design as well as implementation perhaps imposed by the ambitious time frame of the project.

Also, the project period saw quick turn over of senior management staff at UNNATI at Jodhpur level. This too was a practical challenge although efforts of fairly competent senior and junior staff managed to prevent complete breakdown.

### 3.4 Successes

The project had all the essential ingredients of a comprehensive and well rounded intervention for adequately reducing risk of marginalized groups to drought.

Key highlights of the success of the approach have been:

- **Comprehensive understanding of drought as a disaster and pre and post disaster determinants of risk**

The project team, both UNNATI and its partner NGOs through their several years in drought prone Rajasthan particularly working with dalits, have developed deep understanding of measures required for reducing drought risk of arid communities. They also have a sound understanding of socio-economic and institutional factors that put some households more at risk than others. This understanding and conviction from years of working in the arid context of Rajasthan was instrumental in developing pilots, some of which were rather radical. Horti-pasture plots required a lot of cajoling, exposure and handholding support from the project before the initiative reached a stage where non-participating families also expressed interest in taking these up.

Similarly off-beat but sound initiatives such as timely vaccination of goats in preparation for post-drought infections was lauded as a critical input by communities. Tanker based water supply



system for dalits has provided useful lessons with regard to financial sustainability of the intervention and has been felt to have high potential by all the actors associated with the project.

- **Contextualization of traditional DRR approaches to drought**

The project has effectively demonstrated contextualization of traditional DRR strategies such as formation of community based task forces necessary in the context of drought. A case in point is the redundancy of search and rescue task forces but the need for health task force to ensure timely action for malaria prevention.

- **Community based understanding of vulnerability conditions critical for community managed DRR.**

The various interventions of the project had strong community involvement in all critical processes. As a result, the VDCs in the project villages had developed their own indicators to identify families that were most vulnerable and prioritized action to reduce their risks. The project resources were thus allocated accordingly. This is one of the most laudable achievements of the project.

- **Policy influence even through small scale pilots**

The project has had some degree of impact on policy process at various levels. At the most micro level, the emerging success of the horti- pasture initiative has attracted government interest to relook at NREGA's "kesar wadi" scheme that has similar intentions but virtually lacks strategy. Similarly, one of the PHED engineers reported that the drought monitoring initiative was discussed at the state level and all the drought affected districts were instructed to prepare water supply plans based on community feedback collected through gram sevaks etc.

- **Linkages with institutional resource agencies and capacity enhancement of communities to help themselves.**

The various interventions of the project helped the VDCs to link up with the institutional machinery at the appropriate level. For instance the different task forces, liaised with the PHC and its workers, veterinary department, PHED, CAZRI and *Krishi Vigyan Kendras* to access various services. Over the course of the project, independent access by the task forces/ VDCs was reported. As a result not only were the benefits of these services such as health camps, cattle camps, horti-pasture guidance etc were available to a larger population, resources persons such as para-health workers, horti-pasture experts and others were created in the community.

### 3.5 Recommendations for the way forward

The project has, in its own small way initiated a legacy that simply cannot be discontinued at this juncture. There is enough evidence on ground of the outcome of the project activities- both softer processes related to community capacity development for DRR as well as creation of tangible assets for families and their communities. The potential of many of these activities is visibly high, and was also reported by participating communities and partner NGOs. Some of the strategies and actions that can be considered for the future are:

#### 1. Expand the scope of pilots - scale up/ scale out and scale in

The project has already created a ripple effect in the project villages- beyond the families it originally set out to assist. Demand has been reported for horti-pasture plots and dedicated water service for dalits, from other villages as well. A fair amount of interest has been reported on alternate and safe housing construction. These initiatives can be further strategized to improve their long term viability and large scale application. Other initiatives such as those in relation to health services, veterinary services etc have been reported to be already stable and sustainable although further input could strengthen them in the long term.

#### 2. Work with policy makers and implementers for application of good practices

The programme has demonstrated some good practices within the preview of existing government programme. These good practices in terms of their community processes, transparent systems, liaising with technical resource agencies and departments hold tremendous potential for value addition to existing schemes. For instance the 'kesar wadi' scheme could greatly benefit from the innovations in horti-pasture initiative and its processes. Similarly Indira Awaas Yojana would benefit from practical solutions for integration of DRR features in rural housing.

#### 3. Improving stakeholder understanding and perception of risk

Most stakeholders in the historically drought prone context of western Rajasthan have accepted drought as a "part of life". However a CMDRR approach challenges the fatalistic attitude and motivates different stakeholders to pro-actively take action to address risk.

The project has made a small dent in this direction. However, a lot of ground needs to be covered to truly motivate people especially the traditionally marginalized groups to take charge of their lives and cover their risk, for instance through life insurance. Economic well-being of such householders needs to be ensured so that financial gain is not the primary concern when looking at risk coverage and mitigation.

#### **4. Knowledge consolidation and dissemination especially for the benefit of other drought prone states.**

The Project fully understood that reducing the risk of drought in Rajasthan could not be achieved by a single agency alone. It therefore limited its scope to developing and demonstrating scalable solutions for adoption by the government.

In this respect, the project has provided very interesting lessons on how disaster risk of traditionally disadvantaged groups can be reduced. However from the view of larger application of these lessons, the project has not invested the necessary energy to develop knowledge resources and tools for application of DRR solutions for a larger scale and scope. The project could seriously consider this. Given the fact that the 183 districts in 16 States of the country have been declared drought prone (covering Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttaranchal and West Bengal), a huge percentage of the population is at the risk of drought. The project thus holds the potential of influencing efforts at reducing risk of these people.

Towards this end , a comprehensive knowledge consolidation strategy needs to be articulated that would lay down the number and nature of knowledge products and tools that can still be developed and strategically disseminated to such a targeted audience.

The Project needs to carry out structured documentation and dissemination of the innovative practices, besides identifying other suitable knowledge products to be developed in relation to DRR in the context of drought and dalits as the targeted social group.