



Evaluation of River Basin Programme in Nepal

Full Report

Oxfam GB Programme Evaluation

May 2008

Commissioned by: Oxfam GB

Evaluators: Oxfam GB

Contents	Pages
Executive Summary	2
Background	5
Methodology	6
Results and Findings	3
Matrix of Villages, Partners and Activities	7
Summary of Household Demography	8
Pre-Flooding Situation and Preparedness	9
Changing Flood Patterns	
Livelihood and Income Sources	
Household food stock	
Land Holding	
Fuel for cooking	
Water and Sanitation	
Assets	
Housing Patterns	
Physical remoteness	
Marginalisation	
Early Warning Systems	
Household Preparation	
Contingency Plans and Stocks	
Plinth Raising and Other Structures	
Disaster Management Committees	
Training and Capacity Building	
Awareness	
Targeting-Did we get it right	
During Floods	
Use of Contingency Plans and Stocks	
Use of Structures-who, how long and opinion	
Relief-when, what and options	
What happened to livestock, houses and assets?	
How were the WATSAN facilities used, water purifications and defecations?	
Survival Mechanisms-food sources and amount, income	
Environmental Damage	
Recovery from Floods	
Coping Mechanism	
Length of Recovery time for last few years	
Support provided for recovery	
Sectors needing recovery	
Gender	
Partners- Capacity and Coordination, Advocacy and Influencing	
Accountability	
Conclusion-the way forward	

Executive Summary

River Basin Programme of Oxfam GB Nepal is implemented since 1999. This programme is as a part of the regional River Basin programme and is designed to address the problems faced by the vulnerable and marginalized communities in the *Terrai* Region. The current initiatives began only in 2005 with four local partners¹ in 74 villages in five districts, three in the western region and two in eastern region of the country.

During last 30 years, the floods are annual phenomenon and are getting worse. Some of the reasons attributed for flooding are reduced carrying capacity of rivers (siltation), construction of dam along the border by the Indian government and absence of preparedness culture among the local authorities.

There are positive changes in communities understanding on disasters. Initially communities had notions that disasters are the acts of gods and goddesses. There is a change in their perception and realization that disaster impacts can be mitigated and impacts reduced by the community. Trainings, orientation, rallies and campaigns in communities have increased their understanding.

Boats are the most prominent contingency stock utilized by the communities during floods (more than 60%). In few FGDs, communities explained how boats were useful to rescue elderly people, women and children to flood shelters.

Village and Community Disaster Management Committees, set up by the partners, prepared evacuation plans and were able mobilize communities to establish emergency funds. Role of volunteers during search and rescue operations and relief distributions was appreciated. Survey findings shows that 82.1% of respondents are aware of these committees and 28.4% were the members. The process followed by the partner agencies to form these committees and the training meetings organised was good, and they managed to have women elected as members of these committees. In some districts, the community disaster preparedness plans have established links with VDC and allocated budget for preparedness activities including coordination meetings among disaster affected VDCs. However, in some cases the committees are depended upon the NGOs. To increase their sustainability, linkages should be established with the Village Development Committees (VDC) and other local government systems.

Household survey findings indicate that only 47% have access to latrines. About 76% respondents prepared before floods. The types of preparation include stocking food (rice & dry vegetables) and seeds, saving money, repairing houses, etc. Women also kept some clean cloths for the sanitation. There is some awareness among the communities on flood preparedness that can be strengthened. But the awareness on hazards, vulnerability and different risk reduction actions among the communities, VDC and other actors were insufficient and could be improved.

Pre-dominant livelihood strategies in the area are farming (29.9%) and engaging in casual labour (37.3%). There are no other alternative economic/ employment opportunities. Only 62% own land and availability of food stock from own source (22%) is limited to due to lack of agriculture inputs, recurrent flooding, etc. Each year floods destroys crops of farmers, especially for small land holding and those who work as sharecroppers. About 73.1% of the respondents made adjustments to the number of meals eaten per day after floods. As a part of the project, some villages have initiated grain banks. Partners are also encouraging communities to diversify income sources through activities such as vegetable gardening, goat rearing and other income generation activities that can be promoted at larger scale.

Majority of households have only nominal assets like cooking utensils; bed, mat, bucket, blankets, and agriculture equipments and small livestock like goats and small poultry. Quality of drinking water that communities collect at the wells and its storage at household level is a major concern.

¹ Indreni Rural Development Centre (IRDC) in Kapilvastu, Centre for Disaster Management (CDM) in Rupendehi and Nawalparasi, Rural Community Development Service Council (RCDS) in Mahottari and Koshi Victims Society (KVS) in Saptari district

Water quality is open for contamination by recurrent flood and surface water stagnation due to poor wastewater drainage.

Sanitation is other issue that requires addressing. 22.4% of the respondents had raised plinths and most of them had contributed their own resources. Partners and staff also informed that many neighbouring communities have also started replicating plinth-raising activities. But the plinths of the raised homesteads were not above highest recorded flood level and can be improved. Choice of materials for construction of latrine and homestead could have been better made, if locally available materials were used and helped in wider replication. There are some innovative practices where partners have coordinated with VDC to declare some areas restricted for open defecation.

Major loss from floods includes loss of crops (56%) and loss of productivity of livestock. About 58% respondents lost one or other productive assets. The major productive asset loss included land (50%), seeds (30%) and clothes (19%). Loss of land and seeds are particularly important for increasing their vulnerability and widening poverty gap. In case of non-productive assets loss, 44% respondent lost mainly dwellings (that were fully or partially collapsed) and or cooking utensils. The project needs to design interventions on how to reduce the asset loss of the communities along with saving lives.

During and post floods, the employment opportunities were limited. At times, people have taken loan from moneylender and sold their household assets for food. In one of the FGDs, the men told that they had taken loan of 25,000 NPR with 36% annual interest. Creating opportunities (employment, financial, etc.) for recovery after disasters is another factor that project needs to take into consideration.

Flood shelters constructed were helpful for people to take shelter. But they are small and were not able to accommodate all affected persons. Other than flood shelter, most of the time people took shelter in houses of local elites, schools or embankment during flood. The flood shelters were used for 2-3 days and there was no drinking water or toilets and separate space for livestock.

The main cooking fuel is mixture of cow dung + wheat/rice straw mixed and dried. In one village *biogas* is introduced. 6 households have adopted biogas and are quite successful. Biogas provides household fuel, and helps in safe excreta disposal need by producing organic manure for agricultural fields.

All four partners have training and capacity building as one of their core organizational objectives, and have conducted various meetings and training sessions with their respective communities. The local communities and district level stakeholders value the disaster management initiatives promoted by them.

Partner agencies have tried to address this gender issue in the communities, and have gender and health awareness raising focal point staff in their organisation. During formation of VDMC and CDMC, they have encouraged the selection of women members in the committees. A positive change in the lives of women is that they are able to speak in front of men and committee members and express their views, which was not the case earlier. Livelihood input support is prioritised for women and they also own business and other assets (like goat, treadle pumps, etc.) But, there is a need to do more work for empowering women and supporting gender-sensitive activities in this regard.

All partners have good coordination with VDCs and others I-NGOs and were able to influence VDC to allocate resources for transportation of relief materials from their own fund and advocate to DDC for more resource allocation. In some areas, VDC members were also members of the District Development Committees (DDC). The partner effort was effective during flood response to coordinate, mobilise outside support and avoid duplication.

The evaluation concludes that disaster risk reduction initiatives has benefited to the community. Individual benefited have gone mainly to few households who have their plinth raised, and for communities where water points were raised.

Working with Partners: a right way of implementation

Oxfam's four partners have strong local base and gives an advantage to Oxfam for such strong and capable organisations as partners, who have excellent local knowledge and long-term interest of working with the communities. Partner's capacity building can be further improved in certain areas such as on participatory approaches, community mobilisation, DRR approaches, etc.

Geographical area coverage and measuring impact

The RBP programme in Nepal covers five districts in geographically two separate areas: the West and East regions. Access to the areas is a difficult process by air or over eight hours drive by car. Even though the work is implemented by partner agencies based in these two development regions, monitoring of the implementation and providing technical support by Oxfam staff has not been that easy, and this will continue to be so unless additional resource is acquired.

The following factors should be considered while deciding target areas:

- Concentrate in the most needy and vulnerable area
- Develop a framework to measure the impact of our programme

Strengthening Disaster Management Committees

Village and Community Disaster Management committees are functioning during implementation of disaster relief responses, which is one of the roles they need to play, not the sole and main role. It is imperative for the partner staff to have clear understanding about institutional mechanisms on disaster risk management, and train and support disaster management committee members to play a wider role in disaster risk reduction.

Contingency Plans and Stocks

Contingency plans may be shared, updated regularly (at least before monsoon) and disseminated to the community members. Mass awareness is needed on existing contingency plans, stocks and traditional methods such as preserving dry food and cash savings for flood. The messages should target vulnerable families, VDCs, other agencies and the local government.

Early Warning Systems

Develop effective early warning systems that combine scientific knowledge and traditional wisdom can help in reducing risk and help communities and share with the communities. The early systems can be developed between downstream and up stream and can be also shared and collaborated with the district and national government.

Food Security

The analysis shows that food security scenario in the area is shows a chronic problem. Most of the families don't have sufficient food availability before floods and post floods that deteriorate. Livelihood enhancement activities initiated by the partners and that focus on women should be taken up at a larger scale. Different other innovations on food security can be designed.

Public health

The gap on public health capacity is very evident, from the design of latrine and drainages at water distribution systems in the RBP programme. . Funds spent on these uncompleted works could have been used on something else that could have benefited the community. Water quality is other area that needs to be looked. The partners will need and can benefit from technical support and timely monitoring from Oxfam. This will help to demonstrate good practice and identify alternative approaches

The evaluation team is of the view that public health awareness raising training is a pre-requisite for the partners' staff and communities to understand the importance of public health and its relations/impact to disaster risk reduction interventions.

Introduction of Biogas and energy saving stoves

Availability of fuel for cooking is very limited in all the villages. The community are mainly dependent on dried cow dung. Some of the partners have been working on energy saving stoves and community have adopted biogas system. This can be followed up further, and its viability tested. The set up of biogas system does require initial capital but it has an advantage in solving

sanitation problem, with by-product of renewable energy for cooking and manure for agricultural field and at the same time helps prevent deforestation. This activity can be taken a large scale.

Flood shelters and other small-scale mitigation activities

More flood shelters are need and especially in villages where disasters are frequent and targeting vulnerable people. The location and size of the flood shelters needs to be decided in discussion with the community members. Appropriate facilities for men and women (e.g. water and sanitation) needs to be taken into account in flood shelters. Possibilities of having separate space for livestock and household assets should also be explored. The

Gender and RBP programming in Nepal

Gender issues need to be addressed in all aspects of programme implementation in the RBP programme, right from project planning, to design, site selection for latrine, tube well, awareness raising on rights, health, family planning, training on leadership development and resource mobilisation and resource management. At the moment women are represented in the disaster management committees at village and community level, but this should not remain to be nominal representation, more support is required to have women play equal role with their husbands on matters and have access to resources and involve in decision making.

Targeting

Better targeting of the most vulnerable communities. In such situation, provision of communal latrines could have been considered in consultation with the communities. Selection criteria for beneficiaries need to be understood and agreed by all staffs.

Advocacy

Partner agencies and Oxfam need to work out an advocacy strategy to lobby with responsible authorities for the rights of these marginalised people and acceptance by the higher-class members of their community. The advocacy and lobbying experience of KVS partner can be used can be shared with all the other partner agencies².

The programme needs to have a campaigns and advocacy framework through which programme can identify advocacy issues, and develop methodology for campaign. Influence the District Natural Disaster Relief Committee and national government on certain key issues like planning before monsoon season, resource allocation, quality response, early warning can also be potential issues for advocacy.

Long-term programming and lesson learnt

It is necessary to have greater impact from DRR programming. RBP /DRR programme in Nepal have been going on for the last 6-7 years, but the partnership with the current partners started in 2005-6, i.e. what ever experience from the previous partners is lost, and we seem to be starting all over again. It will be good to build on the experiences attained from earlier interventions. This is also the case with in Oxfam staff as well, most of the current DRR team have started 2-3 years back, there should be a mechanism for transfer of experience and lessons learned from previous to new staff members.

² KVS lobbied for compensation for the people who were displaced from their agricultural fields when the Koshi river dam was constructed by India inside Nepal and still active on different flood management issues.

1. Background

Nepal is a country that is famous for the highest mountain in the world '*Mount Everest*' and attractive icy Himalayan mountain ranges. Nepal is also one of the poorest countries in South Asia, with an average household income of about US\$ 311 per annum. The country ranks as the twelfth poorest country in the world.

Geographically, the country is divided into the Alpine mountain ranges in the north, the middle mountain ranges in the centre and the tropical low lands in the south (known as *terrai*), bordering India. There are also five development regions: the Eastern, Central, the West, Mid-West and Far west. Poverty rate in *terrai* communities is high compared to the valley and the communities are not fully involved in the decision-making and the political process.

Land ownership in Nepal has traditionally been concentrated in the hands of a few. For most poor rural families access to land is extremely limited. Almost 70 per cent of households have holdings of less than 1 ha and many of them depend on plots that are too small to meet their subsistence requirements. Productivity levels remain low as a result of limited access to new farming technologies, inputs and extension services. Because of poor growth in the agricultural sector, living standards in rural areas are deteriorating and poverty is increasing. The growing population has put huge pressure on cultivable land, especially in the Terai region, which also supports many landless migrants from the hills. Social discrimination plays a significant role in keeping the most disadvantaged people in rural Nepal poor and marginalized. Discrimination on the grounds of caste is officially illegal in Nepal but is in fact widespread, especially in rural areas. Members of the lowest caste (*dalits*, or untouchable) are the most disadvantaged group. Most people in the *dalit* caste work as wage labourers for higher-caste farmers.

Overall, people who tend to remain poor are households of agricultural wage earners, those who are landless or have small land holdings, those with illiterate household heads, and those living in large households (with seven or more members)³.

Nepal has 14 zones, 75 Districts, 3915 Village Development Committees (VDC) and 58 Municipalities. In each VDC there are 9 wards. The country is very susceptible to natural hazards such as floods, earthquake, droughts, landslides, avalanche and fire. It forms part of the Brahmaputra river basin along with India and Bangladesh that is frequently flooded. Floods in Nepal are either flash floods or inundations. Though flash floods are recurrent, lasting for a short period of time (about a week or so), yet the impact of disasters is big: loss of life and livelihood assets such as animals, crops, houses, damage to water & sanitation facilities and infrastructure, e.g. roads, bridges, etc. The inundation in the Indo-Nepalese border makes the transportation of the essential items to Kathmandu valley difficult as the national highways are flooded and damaged.

To contribute towards the poverty alleviation and risk reduction of the poor and marginalized community, particularly of vulnerable women, Oxfam GB Nepal Programme is implementing River Basin Programme in 74 villages in five districts of the *Terrai* region, since 1999. The project's objectives are to: (i) increase capacity of the community to prepare for and mitigate the impact of disaster, (ii) enhance livelihood of the community by providing options that withstand flood disasters, (iii) influence disaster reduction measures of the district administration, and (iv) to improve communities access to entitlements and promote greater equality between women and men.

During last few years, Oxfam through its four partners are working closely with those vulnerable communities and has implemented disaster preparedness, mitigation, livelihoods and public health activities. Most of the beneficiary communities were identified on the basis of their vulnerability and need.

This is an evaluation report of the programme activities covering last two and half years that was carried out by four partner agencies namely, Centre for Disaster Management (CDM), Indreni

³ World Bank Poverty Report

Rural Development Centre (IRDC), Rural Community Development Services Council (RCDCS) and Koshi Victims Society (KVS).

Objectives for the evaluation:

- To analyse existing hazards and vulnerabilities of the communities living in the *Terrai* Region of Nepal.
- To review interventions carried during the last two and half years as part of the River Basin Programme in *Terrai*
- Based on the review findings, recommend appropriate interventions in the future.

The evaluation team consisted of Public Health Engineering Advisor from HD, Oxford (Team leader), RBP Programme Officer, Bangladesh, Humanitarian Programme Coordinator, Afghanistan and two Nepalese translators.

2. Methodology

The methodology of the evaluation study consisted of both qualitative and quantitative data using household surveys, focus group discussion, transect walks, hazard assessment, semi-structured interviews, seasonal calendar, interview with stakeholders, community members, partners and Oxfam staff.

Sampling

The sample size decided for household surveys was more than 10 %. Oxfam GB Nepal programme works in 74 villages; hence 10 villages were randomly selected. These villages consisted of seven high and three moderate flood prone villages. Further, the households in each village were again randomly selected.

Table 1: Villages and number of Households selected for the survey

District Name	VDC	Village Name	HH selected for survey	High/Medium Flood
Kapilvastu	Motipur	Pragati tole	12	HF
Kapilvastu	Kopawa	Loharibagiya	9	MF
Kapilvastu	Motipur	Balapur	10	MF
Nawalparasi	Rampur Khadauna	Khadauna	23	HF
Rupandehi	Betkuinya	Bijayagadhawa	5	MF
Mahottari	Dhirapur	Muslim Tole	13	HF
Mahottari	Gonarpura	Naya Tole	15	HF
Mahottari	Matihani	Bhagwati Tole	16	HF
Mahottari	Simardahi	Mushar Tole	16	HF
Mahottari	Matihani	Kaushalnagar	15	HF
		Total Households	134	

Techniques such as Focus Group Discussions (FGD), Semi Structured Interviews (SSI), Seasonal Calendar, Time line and Transect walk were used for qualitative data. A total of 11 FGD, 18 SSI, one seasonal calendar, two time line, two hazard assessments and 10 transect walk was done. At an average about 12 to 15 community members (both men and women) were present in FGDs. One separate FGD with women was undertaken in Khasual Nagar village to seek their views.

Constraints/ lessons learnt

There were minor shortcomings on the translation of the household survey from English to Nepali. In few instances, the translation to Nepali was not enough because the community spoke their own local dialect (*Maithali*) and, therefore in the course of triple translation, it was difficult for community members to give the right answer.

The enumerators would have benefited from more training on how to carry the survey, understand the questions and the situation they will face in ground. Because of security concerns (Bhand⁴), two initially selected villages had to be changed in Saptari district. Three villages in Mahottari district replaced the two villages in Saptari district.

2. Results-Findings and Analysis

2.1 Matrix of villages visited/ partners/ activities

The names of different village visited are given below:

Table 2: Details of the village visited

District Name	VDC	Village Name	Partner Agency
Kapilvastu	Motipur	Pragati tole	IRDC
Kapilvastu	-do-	Loharibagiya	IRDC
Kapilvastu	-do-	Balapur	IRDC
Nawalparasi	Rampur Khadauna	Khadauna	CDM
Rupandehi	Betkuinya	Bijayagadhawa	CDM
Rupandehi**	Rohinihawa	Pandedihawa	CDM
Mahottari	Dhirapur	Muslim Tole	RCDSC
Mahottari	Gonarpura	Naya Tole	RCDSC
Mahottari	-do-	Bhagwati Tole	RCDSC
Mahottari	Simardahi	Mushar Tole	RCDSC
Mahottari	Kaushal Nagar	Kaushal Nagar	RCDSC
Saptari**	Launiya	RamJanaki	KVS
Saptari**	Gobargadha	Ward 8, Masgidha	KVS

** Visit to 2 villages in Saptari and one village in Rupandehi had to be replaced by other villages in Mahottari districts due to security concern.

Activities carried out by the Partners

Preparedness and mitigation activities

- Construction of spurs for the protection of riverbanks
- Tree planting along riverbanks
- Raising of homestead plinth
- Construction and distribution of rescue boats
- Road improvement / rehabilitation
- Distribution of life jackets

⁴ Strike on the road, a frequent happening in the terai district.

Awareness raising activities

- Motivation activities through drama
- First aid training
- Organising workshops

Public Health

- Construction of raised water well platforms and raising the tube wells
- Radio programme and messages dissemination on PH
- Drainage improvement
- Training and awareness generation on hygiene and sanitation for the communities

2.2 Summary of Household Demography***Demography of Respondent Households***

A total of 134 households were surveyed. The survey respondents consisted of 44% women and 56% men, a considerable size of women were targeted and their views are represented well in the report. Out of the total HH surveyed, 79% were male headed and 21% female headed (often widowed), and 82% HH heads are in the economically productive age group (18-59 years).

Household Size

Average size of the household in surveyed village is 7 persons/HH compared to the national rural average 6.2 persons/ HH and did vary across the five villages. About 7.5% of HH members of respondents are disabled. Marital status of the households is:

Table 3: Martial Status of the respondents

Status	Frequency (n =132)	Percentage
Married	114	85.1
Partner, not married	1	0.7
Living apart, not divorced	14	10.4
Widow/Widower	3	2.2

Literacy and education attendance

Education and literacy is a key factor for development and social change. For this reason, functional literacy and educational attendance were considered as a key demographic indicator. Results indicate that only 36 % HH heads are able to read and write, while 17% spouses were able to read or write. This shows the disparity in education between men and women.

Analysis of school attendance of boys and girls in the school going age (6-17 years) indicates that more boys (60%) than girls (38%) are attending school regularly. But the drops out rates are slightly higher for boys (11%) than for girls (3%). The most common cited reason for dropping out of school is lack of interest in schooling and earn extra income to support the family. Different studies have also highlighted that poor families are often obliged to send their children to work rather than to school. In this way the poverty cycle is perpetuated into the next generation. It is estimated that about one quarter of the children in Nepal between four and five years old are engaged in some kind of family or wage labour.

Table 4: Demographic details of the respondents

Demographic Variable	Frequency	Percentage
Number of HH Members	N=133	
1 to 3 people	14	10.5
4 to 6 people	54	40.6
7 to 9 people	44	33.1
10 to 12 people	14	10.5
13+ people	7	5.3

Average household size		7		
Age Structure by Sex	Male	Female	Total	Percentage
0 – 5 years	74	81	155	17
6 – 17 years	169	136	305	33.5
18 – 59 years	201	198	399	43.8
=/>60 years	27	24	51	5.6
Total	471	439	910	100
%	51.8	48.2	100	

2.3 Pre-Flooding Situation and Preparedness

Changing flood patterns

Most of the communities told during FGD that floods are yearly in the Terai districts since the last 30 years, and are getting worse every year. The main rivers that cause flooding in the villages are Banganga and Surai in Kapilvastu District, Koshi and Khado in Saptari, Dahnewa river in Nawalparasi and Bighi river in Mahottari district.

In the districts of Mohatarri district, water logging and flooding is exacerbated by the construction of Indo-Nepal dam that resulted in the displacement of communities from their villages to areas where it is prone to flooding. *“Every time our village is flooded, we lose livestock, crops, houses and whatever small utensils we have. We cannot send our children to schools”*, said men and women of Lohribagiya village (Kapilvastu district) in a FGD. In-addition, due to change in global temperature, there is increase in snowmelt leading to more frequent flash floods. Communities also told that there are likely to be two floods every year in the future, one with high severity and one moderate flood, if the current trend continues.

The community when asked why do they think they have been flooded every year, they put the blame on the excessive rains in the mountains and the fact that the rivers that channel the floodwater into their villages have been changing direction due to excessive erosion that resulted in breaking of river embankments. Nothing has been done to protect the river embankments from erosion.

We had two spell of flood in the last year and water stayed for 40 days, unlike in previous years when water receded with in 7-15 days. (Partner staff, Mr. Ram Dev Yadav)

Livelihoods and Income Sources

Local economy of the area is based on agriculture. There are two livelihood groups: big/ medium farmers⁵ (35-25%) and landless/ agriculture labourers (65-75%). And many of the agriculture labourers work as sharecroppers in the rich people's land⁶. Two cropping patterns are prevalent in the area: a) rainy season during monsoon season consisting of paddy (4-6 months duration) and lentils (Jun-Nov/Dec) and, b) winter season consisting of wheat and mustard (Nov-Apr).

Most of the people are dependent on farming and casual labour and there is no other economic activity and employment opportunity. The statistical analysis of the HH survey also indicates that both the **primary** and **secondary** income source is **casual labour** while the **third** income source is **agricultural farming**. The highest income source for the community is casual labour (37%) followed by crop production (30%). Most of the casual labour includes working for landlords, collecting sand and stones from riverbeds, etc. About 4% of household depend on small business and 18% of them are earning remittances. Most of the agriculture is rain fed or depends on residue. Irrigation facilities are minimal. Monsoon floods and unusual rainfall caused damages of crop and forced people to shift their livelihood options, and is one of the reasons for initiation of small business and migrating to other areas. The agricultural tools and technology are not easy accessible which is contributing to low production and making it non-economical.

⁵ The rich/ medium farmers in the area usually have land more than 2 acres

⁶ A agriculture labour earn about 30 Nepali rupees per day that is paid either in cash or in form of grains

Distribution of wealth and livelihood assets is not equitable. Only in few cases, livelihoods are diversified with both on-farm and off-farm activities. Few people have small enterprises and are operated without having technical training. They don't have business protection and continuity/recovery plans. Poor local trade and lack of transport facilities is a barrier to get better price of products and labour, and these services are not well protected from hazards and other external shocks.

Table 5: Different income sources of communities

Income Sources	Main Source		2nd main source		3rd main source	
	Frequency (n=134)	%	Frequency (n=93)	%	Frequency (n=53)	%
Remittances	24	17.9	6	6.5	3	5.7
Food Crop Production/Sales	40	29.9	27	29.0	5	9.4
Cash Crop Production	3	2.2	6	6.5	1	1.9
Casual Labour	50	37.3	30	32.3	9	17.0
Begging	1	0.7	3	3.2	1	1.9
Livestock production/sales	-	-	3	3.2	5	9.4
Fish Farming/Fishing	1	0.7	1	1.1	1	1.9
Petty Trade/Small Business	6	4.5	6	6.5	6	11.3
Weaver/Sewing	-	-	2	2.2	1	1.9
Formal Salaries/Wage	5	3.7	4	4.3	3	5.7
Vegetable Production/Sales	1	0.7	1	1.1	1	1.9
Food Assistance	1	0.7	2	2.2	1	1.9
No other source of income	-	-	1	1.1	15	28.3
Other	2	1.5	1	1.1	1	1.9

Peak season for agriculture employment is planting and harvesting months i.e. November to April. After that, most of the labourer become unemployed and migrate to cities within the country and outside (mainly India and few to Arab countries in the Middle East). Those that do not migrate during the lean season work in the forest, rice mills, pull rickshaw, construction labour, etc. Women usually do not go out for work; they are engaged with domestic household activity.

As a part of the project, some villages have initiated grain banks. Partners are also encouraging communities to diversify income sources through activities such as vegetable gardening, goat rearing and other income generation activities that can be promoted at larger scale.

HH food stock

Most of the families don't have enough food stock even in before floods. The household survey shows that over the last three months:

- Only 22% of household had food stock from their own production
- 17 % earned their food through engagement in casual labourer
- 4.5% borrowed food from others
- 22.9% purchased food from the market.

Most of the households that don't have sufficient food are farmers with small land holdings and sharecroppers. On further probe into availability of food stock for next four months, the findings were:

Table 6: Food availability

Food Availability	Frequency (n=130)	Percentage
None	48	35.8
Up to one month	14	10.4

Enough for 2-3 months	24	17.9
Enough for 4+ months	44	32.8

This analysis highlights the fact that floods have a severe impact on food security situation. During FGDs, most of the men and women acknowledge importance of stocking food for the flood season, but they cannot because they do not have enough to survive and stock.

On the question that whether they have borrowed during the past four months, 59.1 % out of 134 households responded yes. And out of 58 respondents who responded to the reason for borrowing:

- 21.8% borrow to buy food,
- 21.8 % borrowed to pay for health care
- 15.4% said they borrow to buy agricultural tools.

Poor understanding of the definition of full meal, as one of the villager “Shavurn Nessa” said “ *I had two full meal and one breakfast yesterday*” then she was asked -what were the menu? She replied “*for breakfast, I took around 50gm bitten rice + a little molasses and for lunch and dinner, we took plain rice and mixed vegetable (1kg rice, 1kg bean and 250gm potato for 8 person)*”.

On the food consumption, about 40% of both adults and adolescents in the area responded that they ate only 1-2 meal a day before the survey. Overall, based on the food availability and consumption, the food situation in the area shows a chronic situation.

Land Holding

The household survey indicated that 62.5% of the communities own land for agricultural and 37.5% do not have any land at all. On the same survey the HHs responded that 53% own field or garden and 47% do not. The reason for agriculture being the second main source of income is that the statistics shows that even though more than half of the HHs surveyed (62.5%) own the land, only 62% land are cultivated. The reasons for non-plantation are multiple (combination of some of them): flooding, lack of resources (seeds, agriculture inputs and financial resources), illness in the household, etc.

Fuel for Cooking

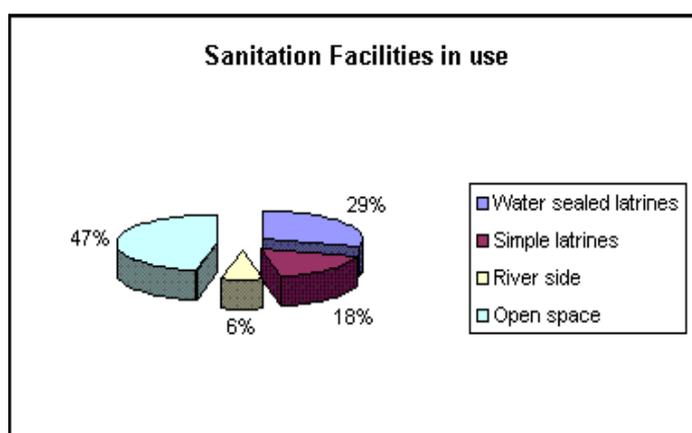
In almost all of the villages visited the main cooking fuel is - Buffalo dung + wheat/rice straw mixed and dried.

In one village of Kapilvastu District Biogas has been successfully introduced in which there are 6 households with working biogas system. Biogas has helped to solve the households fuel requirement and in safe excreta disposal need by producing bi-product of organic manure for their agricultural fields.

Water and Sanitation

Drinking Water

Quantity and access to water was available in quantity in most of the communities visited. They depend on tube-wells fitted with hand pumps, in some cases on streams and rivers. Quality of the water that they collect at the wells and how they store at household level was found to be of major concern. Most of the wells are very shallow, and the water quality is open for contamination by recurrent flood and surface water stagnation around the water



wells due to poor wastewater drainage schemes. Most of the village communities have communal wells and few have privately owned water wells. Most of the tube wells were with out proper platform and waste water drainage channel and soak pits.

Table 7: Sources of water during the non-flood season

Water use	Own tube-well		Neighbor's tube-well		Pond		River/Canal		Other (specify)	
	N	%	N	%	N	%	N	%	N	%
Drinking	58	43.3	53	39.6	-	-	-	-	23	17.2
Washing	58	43.3	50	37.3	1	0.7	2	1.5	23	17.2
Cooking	58	43.3	53	39.6	-	-	-	-	23	17.2
Bathing	58	43.3	51	38.1	-	-	2	1.5	23	17.2

Findings from the statistical analysis of the HH survey data show that:

- 55% of the households have or share ownership of water wells
- 41% of households use neighbours wells or communally owned wells
- 4% collect water from rivers and irrigation canals.

Water for Washing and Bathing:

The community use the same wells source for cooking, washing and cleaning. They do not have separate washing and bathing facilities, and use the water wellheads as a place for washing cloths and even bathing their bodies. This was a major issue, especially for women who find it difficult to bath in the open spaces.

In general, the quantity of water available for the community at village level did not appear to be of major concern, where as the quality was an issue raised in view of the high rate of diarrhoeal diseases. There was no attempt on the part of the partner agencies to address the quality aspect or to undertake any water quality testing and thus to meet the sphere minimum water quality standard. Some sort of technical support to the partner agencies can improved the status of water and sanitation of the communities.

Sanitation

Sanitation, in all communities visited, was an issue that requires addressing. The household survey findings indicate that only 47% have access to latrines (water sealed and simple latrines) the rest 53% practice open defecation (47% in open space and 6% around river side). This has been confirmed through transect walk observation, where faeces can be seen everywhere along the riverbanks and around agricultural fields. The analysis also shows that only 22% had raised platforms.

Table 8: Access to latrine

Toilets in/ near house-holds	Frequency (N=63)	%	Toilet platforms raised	Frequency (N=57)	%
Yes	27	38	Yes	22	38.6
No	44	62	No	35	61

Assets

Most own only household items and nominal assets like cooking utensils, bed, mat, bucket, blankets, hoes and sickle. During field visits, the evaluation team saw them and are not in good condition. They don't have resources to stock food; cloth and cash for disaster situation, being poor and vulnerable even in normal situation. The findings suggest that about 82.8% HH surveyed do not own cattle or buffalos.

Table 9: Details of Livestock owned by respondents

Number of animals	Draught cattle	Other cattle	Goats	Pigs	Poultry
None	111	96	85	-	-
1 to 4	21	36	40	-	11
5-10	2	1	5	2	5
10+	-	-	1	-	1

(n=134)

The analysis shows that only 30.5% own goat, and 8.3% own poultry. Very few villagers own seeds (40.3%), furniture, jewellery (47%), bicycles (56%) and agricultural equipment (42.5%). About 49% household have radio, which is only means of their recreation/ entertainment and it helps them to have warning message during monsoon. One of the Oxfam partner RCDSC has established a FM radio station through which they are promoting various awareness messages to the community.

Housing patterns

People in these areas live in cluster villages where each house are very congested and constructed with out any plan. Most of the villagers use wood, bamboo and straw for their housing in which the plinth level is raised only 2ft above the ground, that is at least 4-5ft below the latest flood level. In some areas people have used stone (which is naturally available) and mud for wall construction. Though there is possibility of collapse of such houses during floods, people prefer this as the construction material it is easily available and involves less investment.

Physical remoteness

All of the programme areas are physically vulnerable; the condition of the road network is poor, far away from district headquarters. Government support services are not easily reached; education institution is less in terms of quantity and quality. River erosion is also highly contributing to their vulnerabilities that are due to changing river course. Rickshaw, van and boat are the main mode of transport. Land is sandy but seems fertile. Health facilities are not easy accessible and there are no qualified doctors at village level.

Marginalisation

The programme area is low lying flat belt that is highly susceptible to annual flooding. Flash floods and inundations are common during the monsoons. In general, the *Terrai* is an area that has been marginalised politically, which has resulted in insecurity and poor economic opportunities in the area. The poor and specially the lower class community are those that face the problem. Lack of public awareness, inadequate preparedness and financial resources, lower level of technical knowledge in mitigation of natural disasters is contributing to vulnerability of those marginalised community.

Preparedness

Early Warning Systems

50.7% respondents are aware of presence of EWS in their villages and many use combination of radio and networks of community volunteer to receive flood information. Partners have also provided hand held microphones to disseminate flood warnings. But the early warning messages are not well understood by all. Few communities also rely on traditional warning methods such as water level monitoring in rivers and observing direction of winds. The evaluation team feels that overall the early warning systems are not well developed that have positively impacted the community. There is a strong possibility of improving EWS, especially between downstream and upstream.

Household Preparation

About 76% respondents prepared before floods. The types of preparation included stocking of food and seeds, saving money, repairing houses, etc. Majority of the households did multiple activities -stocked food, seeds and saved money. Women reported, during FGDs, that they save dry vegetables, rice, lentils, wheat flour and firewood/ fuel in anticipation of floods. Wherever

possible, women keep essential household items at higher and safe places. Some also kept clean cloths for the hygiene purpose.

However, the evaluation team feels that household preparation can be improved. Communities in the area *Terrai* are generally aware of annual flooding and river erosion, but little effort was there to prepare communities themselves. Awareness campaigns with the community will help in household preparation. There was no indication how community disaster planning and capacity building plan was developed with beneficiaries.

Partner staff have indicated that basic training on first aid, contingency stock, etc. have been offered, but on the other hand FGD, and SSI shows that household level preparation was little due to lack of information and poor economic situation. Villagers knew that they have to preserve some food, firewood, fodder, seeds, cloth and cash money for the flood season, but they are not in position to do this. Group savings has been initiated recently, which would be a potential vehicle for survival. Training, awareness raising and promotion of livelihood intervention would be key for effective household level flood preparedness.

Contingency plans and stocking

Partners had distributed contingency stocks (handheld microphones, life jackets, radios, etc.) and provided communities with rescue boats as part of their contingency plan. The survey findings highlights that:

- 56% respondent confirmed on the presence of contingency plans in their villages, 38% had participated in the plans and 45.5% are aware that plans are tested and revised regularly.
- 40% respondents are aware of the contingency stocks in their villages and named stocks like rescue boats, boats, life jackets, etc

Partners had also discussions with the disaster management committees on the contingency plans and some of them had also contingency fund (10-20 thousand NPR). But the focus group discussions suggested that purpose of contingency plans and stocks are not well understood by the community and the members. Some of them were not even aware of the existence of contingency plans and in some places was non-existent..

The evaluation team also understand that in few communities where there was no major flood during last two and half years, and hence contingency materials were not used. Therefore, community members could not share availability of these materials.

However, the community have their traditional methods of contingency stock like preserving dry food and cash savings, which depends upon the capacity of particular households. This is an area that can be further developed through discussion with the communities, and in coordination with VDCs, other agencies and the local government.

Plinth raising and other structures (including WATSAN)

Partners raised plinth and hand pumps of some houses and hand pumps in collaboration with the beneficiary community where they contributed labour. The survey findings shows that 22.4% had plinths raised and most of them had contributed their own resources. Partners and staff also informed that many neighbouring communities have also started replicating plinth-raising activities. But the plinths of the raised homesteads were not above highest recorded flood level and can be improved.

Raised homestead by partners were mostly funded under the last DIPECHO project and consisted of construction using RCC structure. The total cost of the RCC structure was up to 30,000 NPRs. The construction of the latrines was based on cement concrete rings and using bricks for the base slab. Contractors from the local area constructed homestead and latrine. The evaluation team feels that plinth raising and latrine construction activity is labour intensive, and rather than employing contractor it could have been implemented by the village community members themselves. Choices of materials for construction of latrine and homestead could be better researched and implemented, if locally available materials were used and help in wider replication. There are also some innovative practices where partners have coordinated with VDC to declare some areas restricted for open defecation.

In some of the villages visited the latrines construction was not completed though funds were spent on the construction of the pit and the base. The reason was that construction of superstructure is the responsibility of the household. However, the poor households cannot afford the construction of the latrines superstructure, and the latrine design and structure adopted was not appropriate for rural community. Spurs were construction along the riverbanks to prevent further soil erosion. The partner agencies tried to use expertise and advise from local water and environment Governmental agencies, but all what was done focussed on particular site situation that only helped to reduce toping over the embankment. No analysis was done to understand the impact the up-stream and down stream and design appropriate flood protection plans.

Disaster Management Committees

The partner agencies formed Community Disaster Management Committees (CDMCs) and Village Disaster Management Committees (VDMC) in consultation with the VDCs and the beneficiaries. Survey findings shows that 82.1% of respondents are aware of these committees and 28.4% were the members. The process followed by the partner agencies to form these committees and the training meetings organised was good, and they managed to have women elected as members of these committees. But there is gap in awareness and increasing involvement of the communities at grassroots level.

In some districts, the community disaster preparedness plans have established links with VDC and allocated budget for preparedness activities including coordination meetings among disaster affected VDCs. However, in some cases the committees are depended upon the NGOs. To increase their sustainability, linkages should be established with the Village Development Committees (VDC) and other local government systems.

There are examples where committee members were given specific roles and responsibilities on water supply and sanitation, but did not have knowledge /skills to influence such activities. A defined and agreed working procedure needs to be facilitated by the partners to initiate a participatory coordination and decision-making process. Women participation in 'true sense' that leads to their empowerment needs to be ensured in VDMCs.

Training and Capacity Building (Partner, staff and community)

All four partners have training and capacity building as one of their core organizational objectives, and have conducted various meetings and training sessions with their respective communities. The local communities and district level stakeholders value the disaster management initiatives promoted by them.

Each partner has technical staff on subjects like training, public health & gender promotion, agriculture, and coordination who are involved in capacity building of the communities. The expertise/capacity of the partner staff is at learning stage and will benefit from further training and induction on issues such as Disaster risk Reduction tools and monitoring processes. Most of the staff has received training on search and rescue and gender training, which they further percolated to the communities.

The quantitative survey for training and capacity building highlighted that 26.9% HH attended training programmes and most of the programme were first aid training, search/ rescue training, and flood awareness. Both male and female participants had attended the programme and duration was from 1 day to a week. And some of the participants replied that they had used learning from the training programmes during floods.

Awareness

Knowledge of hazards, vulnerability, risks and risk reduction actions were insufficient. Awareness level is very low at different level and can be further strengthened. Campaign and awareness raising strategy was not defined and reviewed regularly. Partners did not conduct pre and post Knowledge Attitudes & Practices (KAP) surveys to know the awareness level and to develop messages and process. There are some planned activity around the awareness issues and some visual materials displayed at partner office, which were not communicated effectively with the community. People believe "*flooding is something they have to live with*". Social information and

communication channels are not effective and people are isolated. Community are not getting early warning messages on time, they have been relying on traditional warning systems. Further awareness on water and sanitation related health issues are alarmingly low. There is open defecation everywhere in the villages. The project supported and maintained tube wells was found not to be used and maintained properly. The latrine, which was provided by the programme, was not used by the beneficiary and many latrines are without their superstructure completed therefore not in usable condition. Beneficiaries are not informed about household level flood preparedness, primary health care and importance of hygiene.

During SSI and FGD, it was found that most of the villages Dalits who are more vulnerable as they are differently treated by the society. They were denied access to resources, information, leadership and decision-making. Within this class, particular women are more vulnerable and suffered due to various superstitions and other unwanted social norms. The problems posed by Climate Change are not well understood at the village level. There are possibilities of supporting through local FM radio stations, discussions in monthly meetings, street dramas, etc. Oxfam can support partners to increase community awareness on floods and climate change related issues.

Targeting – Did we get it right?

All targeted areas are flood prone areas where vulnerable and poor communities live. Kapilvastu district where the partner IRDC is working is relatively less badly affected compared to the other four districts. Flooding is a yearly event resulting in changes of river course inundating the communities' agricultural fields, their shelters and their entire livelihoods. People with different low class cast, poor and marginalised inhabit most of the areas. Partners have carried out meetings and wealth ranking with the communities to identify and select vulnerable household beneficiaries within the communities. This was not evident in selection of beneficiaries.

In some instances household selection for latrine construction could have benefited from better targeting, as the most needy households with poor shelter were missed. Poor households could not afford the construction of the superstructure for latrines and do not have the appropriate area for latrine construction, and therefore did not get the chance of being targeted for latrine construction. This is also related to the type and design of latrine construction selected, which is not a simple type that uses local construction material and is easily replicable. In such instances the provision of communal latrines could have been considered for discussion with the beneficiary community. If the community were ready to use and maintain such facilities, it could have been used as an option.

During the floods

Use of Contingency plans and stocks

In one of the villages during FGD in Kapilvastu district, the men and women told how they used boat for rescuing elderly, women and children to flood shelters. The quantitative survey also shows communities use boats prominently (more than 60%). During FGD in villages, the community appreciates role of community volunteers in search & rescue and distribution of relief goods. However there was no indication that showed contingency plan of the partners. Only one of the Village Disaster Management Committees organized by the partners was able to mobilize community to start collecting money monthly as emergency fund and were able to collect 8000 NPR. Partners trained some volunteer on first aid, search and rescue. Some emergency materials were distributed to community e.g. radio, life jacket, phone set. Most of the people are not well informed on that. The evaluation team feels that it is necessary to inform community about these materials and its usage.

Use of structures – who, how long and opinion?

Few flood shelters were constructed in the RBP working areas. The shelters are small and were not able to accommodate all persons. Other than flood shelter, most of the time people took shelter in houses of local elites, schools or embankment during flood. The flood shelters were used for 2-3 days and there was no drinking water or toilets for people to use nor space for livetsock protection. More than 70% of the respondent answered negative on this.

In Bijoyagodwa village, about 30 people from 12 houses have taken shelter in one government school and stayed there for about 28 days. Health/ hygiene facilities was very bad, there was a tube well which was totally inundated, most of the people got diarrhea, but community were helpful to each other. "One delivery case was happened while they were in shelter. It was a critical delivery case and they could not send her hospital. They had transportation problem because of the flood. Later, local midwife helped her but the midwife could not save her baby. The woman was mentally shocked because her first baby was also dead after the second day of the delivery. The woman said if the community did not helped me I also could not alive". (Kaushalya Harijan, Bijayagadhwa village. Betkuiva VDC. Rupandehi. Nepal).

Relief-when, what and options (note- not evaluation of flood response)

Last year there was a big flood in the first week of July. Most of the villages were inundated and water level was 2ft higher than 2004. Partner has operated rescue with the help of local people and maintained coordination among the actors including VDC and DDC. Flood support wasn't sufficient and people suffered a lot due to scarcity of safe drinking water. Relief supports were available from the following organizations:

- DAO: 5 Kg Rice for 12 HH.
- Red Cross: tent, cloth, blanket
- Chamber of Commerce and Industries (CCI): 2 kg beaten rice, instant noodle.
- World Vision: Pulse 1 kg; oil half liter, potato 3 kg, and salt 1 kg.
- CARITAS Nepal: mattress, mosquito net, and utensil

The relief beneficiary was selected through VDC in consultation with particular organisation. According to partners and community, it is very much important to build more flood shelter in the flood prone areas, so that people can save their lives and belonging. A list of vulnerable people (who will need shelter during floods) can be prepared during dry season that can help to ensure proper targeting during flooding. During the FGD with women in Mathaini village (Mohatarri district), they told how Village Disaster Management Committee members were useful in relief distribution, especially women members who visited individual houses to assess women's problem. Iron and vitamin tablets were given to the affected women members. Sanitary napkins and soaps were also distributed that was appreciated.

What happened to livestock, houses and assets?

During flood, the households in the poor community loss almost every small asset they own. Most of the beneficiaries are poor did not own livestock, but those who had usually are badly affected by the flooding.

Livestock is an integral part of rural affected people and their livelihood largely depends on livestock rearing. On an average most of the family possesses at least one cattle/ buffalos or goat. During flood and immediately after flood, animals had no or very limited access in grazing. The flood killed some of the livestock (usually goats⁷). But for those that survived grazing became problem and they starve leading to loss of productivity. The houses of poor people were not in a good condition and, most of them, were fully or partially damaged. During flood two third of people have left their houses and taken shelter with their belongings. In the FGD, the women told that they are mostly responsible to maintain household belongings and this increases their burden of daily work during unsettled condition for keeping the belongings secure. They expressed frustration that on one hand, the women feel insecure to protect themselves in shifted location and affect to protect the household belongings; on the other side the women were blamed if household assets are lost. . Though in the FGD, there was no issue mentioned about sexual abuse or exploitation, etc., it is likely that the poor people repay for their stay by working in their fields either at lesser wage or free.

The other major lost includes loss of crops (56%) and highlighted as other major shock during FGDs. The details of different loss of crops were:

Table 10: Details of crop loss during recent floods

Sl. No	Category of Loss	Frequency (n=109)	Percentage
--------	------------------	-------------------	------------

⁷ Out of 126 HH that told that loss of livestock, a total of 16 goats, 2 cows and 4 pigs were lost.

1	Did not lose any crops	21	15.7%
2	There were no standing crops	7	5.2%
3	Lost all crops	16	11.9%
4	Lost more than half of the crops	35	26.1%
5	Lost less than half of the crop	30	22.4%

About 58% respondents lost one or other productive assets. Most prominent types of productive asset loss were land (50%), seeds (30%) and clothes (19%). The loss of land and seeds are particularly important for increasing their vulnerability and widening poverty gap. For non-productive assets loss, about 44% respondent lost mainly either dwellings (that were fully or partially collapsed) or cooking utensils⁸.

How were the WATSAN facilities used, water purification and defecation (practices & perceptions)?

Water from raised tube wells (individual or collective) is used for drinking and cooking during flood by those who had access (57.4%) . Those who did not have access continued to collect water from those that were inundated by flood and thus exposing themselves to contaminated water problems and related health risk such as diarrhea. Boats were commonly used to collect water. However, most of the tube wells were partially or fully inundated. Collection of water was the responsibility of women that also increased their workload during floods.

Sanitation in general is a major problem with flood or with out. Open space defecation is the main practice with in the villages. Those who had access to them used the completed raised latrines during the flood. The survey findings shows that only 13.4% had access to the toilets during floods. In general, the latrines provided were not enough for every body and were not built on higher elevation. With some floods, the latrines got inundated and were not used. Most of the villagers continued to use open space for defecation even during flood period. Women in the villages expressed the problem they face on sanitation during flooding. Usually they waded on the floodwater up to their knees to find a higher ground, as the usual open spaces around the river embankments happen to be completely under deep water. In some cases, they used boats and went close to the near forest.

Survival mechanisms- food sources and amount; income

During the flood time, people suffered a lot due to food shortage, lack of safe drinking water and shelter. There were no employment opportunities and people had to depends on the relief. Some households had used saved rice and dry vegetables during flood periods but that lasted only for 2-3 days. Sometime people have taken loan from moneylender and sold their household assets for food. In one of the FGDs, the men told that they had taken loan of 25,000 NPR with 36% annual interest from local moneylender and would travel to India for short-term employment to repay the loan. Infact, large number of males in the villages migrated to cities for work. When floodwater recedes, the community started farming that creates scope for agriculture employment.

Environmental damage

The rivers in the both district originate from Chure mountain range, which is fragile due to deforestation and loose formation. Every year during rainy season, the rivers carries large amount of silt that is causing rise in bed level of river as well as during flood the silt is deposited on the agricultural land decreasing its fertility. The recent flood, the worst in last 50 years (at least) has caused siltation in the agricultural field. It will take time to reclaim the land. The ponds in the affected area were also inundated and the fish culture has also been affected badly.

Recovery from Floods

Coping Mechanism

There were no systemic and planned coping mechanisms at household level. Most of them are farmer and day labourer; they don't have contingency stock of food and money for flood disaster,

⁸ Out of 134 HH, 44%HH lost dwellings and 20% cooking utensils.

even they can hardly take 2 partial meals a day in the normal time. Few households take with them dry food and cloths, if available. Most communities depend on relief aid during flood, as they loss their employment opportunities during the flood time. About 73.1% made adjustments to the number of meals eaten per day. Findings from the survey show the following coping strategy:

Table 11: Coping strategies adopted by communities

SI. No	Coping Strategy	Frequency (n=134)	Percentage
1.	Men engaged in casual labour	61	45.5%
2.	Women engaged in casual labour	38	28.4%
3.	Sold poultry birds	9	6.7%
4.	Sold small livestock (sheep, goats, etc.)	12	9%
5.	Sold big livestock		
6.	Took and depended on Relief	74	55.2%
7.	Migration	35	26.1%
8.	Begging	8	6%
9.	Spent income from own savings	69	51.5%
10.	Other Coping Strategy	3	2.2%

During the FGD in Simardahi village, the men told that they used combination of coping strategy. They cultivated vegetable in their kitchen gardens to grow vegetables and sold it market, or engaged in casual labour. One positive aspect was good community cooperation and cohesion between them during floods.

During focus group discussion in Muslim toll VDC, people said “ **Neighbours shared food, old cloths and helped to take shelter**”. On the other hand they took high interest loan from local money lender. Seasonal migration is a very common strategy for most of the household. In the monsoon season (may to July) they went out for work to Punjab in India. Most of the people have sold their livestock for food and medicine. Some of the village disaster management committee (VDMC) started savings @ Rs.10-25 as a contingency fund for upcoming flood, which may be helpful in the next year.

Length of recovery time for last few years

Recovery⁹ times are depends on the severity and strength of the flood and the impact. As the flood has been happening every year, the community did not have the opportunity to recover back in to their situation before the flood. Before they recover back to pre-disaster situation, the communities face another flood. Some of the community said that it takes between 6-12 months to recover. Some said it takes them years to get their assets back, especially the agriculture labourers'. Farmer could start farming and day labourer can sell their labour in the agriculture field. According to villagers “*at least 5 years is required to return their pre flooding situation, if there are no flood in future*”. Flood is regular phenomena in the river basin areas, so there is less probability to recover. Most of the people become vulnerable, especially the agricultural labourers.

Support provided for recovery

There are some usual support like skills development training on vegetable gardening and fish farming for livelihood promotion. Partners have initiated savings and training on household level preparedness and provided micro credit loan, but it's not sure how far it will contribute to the recovery, as interest rate is around 30%. In general the support provided fro recovery is very limited. Creating opportunities (employment, financial, etc.) for recovery after disasters is another factor that project needs to take into consideration.

Sectors needing recovery- (e.g. livelihoods, housing, etc.)

As per the FGD and team's observation, the areas that need support towards recovery are:

- a. Agricultural: Seeds, seedlings, fertiliser and some cash support

⁹ For communities, recovery means getting back to pre-disaster situation rather than ensuring lives and assets are resilient.

- a. Water and sanitation: Installation/repair of toilets, hand pump with raised ground
- b. Housing support after flooding: full/partial (only C.I. sheet can be provided in case of partial)
- c. Construction of flood shelters, especially where people can take shelter during floods.
- d. Livelihood: Asset transfer (cow, goat), employment through CFW which can be integrated through raising plinth, construction of flood shelter (earth raised ground), repair path road, repair community place.
- e. Rising awareness: gender, rights, violence against women and primary health care etc.

Gender

“As a woman we can’t take any decision without the permission from man because man is the guardian of our house”, said Gulebiya Devi, Age 50 year, Kaushal Nagar, Mahottari

“When I became a treasurer of VDMC my husband was not happy and I was beaten from him many times. But after the community people and RCDSC staffs counseling he is completely changed and nowadays sometimes he reminds me for the meeting time. At the night time he gives me company to join the meeting”, said Bindra Devi, Age 42 year, treasure of CDMC, Kaushal Nagar, Matihani VDC, Mahottari.

In most of the FGD, the women told that they are severely impacted by floods. Excerpts from women FGD in Maithani village are shared below.

“Being women, we had to face many problems during floods. The problems are lack of place for bathing and washing, especially during the menstruation time, problems for pregnant women that their hand and legs are swollen due to cold and non-availability of nutritious food. There was no place for defecation. We had to go to open field and its is very difficult to dry place. We feared of snake and insect bites. There was also problem to defecate in front of men. As women, we are responsible for collection of fuel, fodder, drinking water (if the source is near by) and prepare foods. This increases work load during disasters”.

Partner agencies have tried to address this gender issue in the communities, and have Gender and Health awareness raising focal point staff in their organisation. During formation of VDMC and CDMC, they have encouraged the selection of women members in the committees. But all this effort seems to be limited to symbolic representation at lower levels. There is a need to do more work for empowering women and supporting gender-sensitive activities in this regard. Some of the community women who took part in the SSI have indicated that every decision at household level is the responsibility of their husbands, and that their household resource is entirely managed by their husbands. Even to come out for community meetings and to represent in committees, initially it was difficult for the village women. The partner staffs had to talk to the husbands to allow them, and were successful at the end. A positive change in the lives of women is that they are able to speak in front of men and committee members and express their views, which was not the case earlier.

Lack of education, remoteness, discriminatory social norms and economic hardship has made women more vulnerable. Some of the NGO partners have targeted women as beneficiary by providing livelihood support. They were allowed by their husband to participate. But they had no access to decide, utilise and consume that support independently. The girls’ education rate is very low due to early marriage and lack of awareness. Most of the women are not allowed to work outside the homes. There is in-equity between men and women to own household resources. Men own most of the land. There is no choice for women to take children and to take contraceptive method. Most of the couple has around 4-6 children, which is due to lack of awareness and superstitions. *One of the villagers Aziz said, “we shouldn’t follow such things to control birth; God has given them and obviously he will arrange food for them”.* Domestic violence is very common and socially accepted in remote villages. During transect of Bijoygordwa village; we heard that a villager has been beaten his wife, and when neighbours requested to stop, and his reply was, *“This is my family matter, don’t advice me, sometimes it’s necessary to control her”.*

Partners – Capacity and Coordination, Advocacy and Influencing

Partners have very good reputation among the community. All of partners have legal entities, well-functioned executive bodies and organisational policy procedures. On an average, male: female staff ratio is 70:30. Most of the staffs are dedicated and hard worker, but lack of technical knowledge particularly in DRR, Watsan, gender and community mobilisation is obvious. Partners have no organisational level disaster contingency plan and stock and also don't have emergency funds (around Rs.12, 000). All of the partners have good coordination with VDCs and others INGOs. Villager of Dhirapur-muslim toll said "VDC allocated money for transportation of relief materials from their own fund and advocated to DDC for more allocation" During flood they have exchange cooperation for targeting, distribution of relief and information. In some areas, representation from RBP VDC was ensured at District Development Committees (DDC). RBP partners' effort was effective during flood response to coordinate, mobilise outsider's support and to avoid duplications.

Partners have no specific advocacy plan, while some of them some specialisation in particular field e.g. CDM is informative and process oriented in terms of disaster management while KVS has strong capacity in advocacy and campaign. KVS initiated a systemic advocacy to overcome effects of dams' construction over the Kamla and Koshi Rivers. They have activated local administration, use media and advocated with the national government of India and Nepal to bring the issue of terrain flooding in the SARC summit. There are scopes to share these learning among Oxfam partners to strengthening advocacy and campaign intervention.

Accountability-Information, feedback and complaints mechanism

Partner have shared programme budget to the VDMC and VDC before implementation. Design and selection of beneficiary expected to be done in consultation with beneficiary, but has not been done properly. Women participation in the project planning and intervention selection/design is a key area for further improvement of accountability. Partners are very keen to have funding support somehow rather analysing effectiveness and rationales. Some times, selection of activity and design has driven by Oxfam. There is a practice to share project related information among all staffs. Apparently it was found that there was an enabling working environment and every body can share their views and ideas. There was a culture of feedback within the partner teams.

Conclusion-the way forward-recommendations for country & region

The purpose of the evaluation is to identify organisational learning, to measure positive and negative changes as a result of the ongoing RBP and based on the findings suggest to come up with recommendations for the future of the RBP programming in Nepal. The evaluation concludes that disaster risk reduction initiatives has benefited to the community. There is a change in their perception and realization among the communities that disaster impacts can be mitigated and impacts reduced by the community. Individual benefited have gone mainly to few households who have their plinth raised, and for communities where water points were raised.

Working with Partners: a right way of implementation

Oxfam's four partners have strong local base and gives an advantage to Oxfam for such strong and capable organisations as partners, who have excellent local knowledge and long-term interest of working with the communities. The staffs of the partners are recruited locally. Partner's capacity building can be improved in certain areas such as on participatory approaches, community mobilisation, motivation & presentation. The partners understanding on DRR issues are well spelt out based on the proposals, but this has not been transferred to the communities.

Geographical area coverage

The RBP programme in Nepal covers five districts in geographically two separate areas: the West and East regions. Access to the areas is a difficult process by air or over eight hours drive by car. Even though the work is implemented by partner agencies based in these two development regions, monitoring of the implementation and providing technical support by Oxfam staff has not been that easy, and this will continue to be so unless additional resource is acquired.

The following factors should be considered while deciding target areas:

- Concentrate in the most needy and vulnerable area
- Develop a framework to measure the impact of our programme

Strengthening Disaster Management Committees

Village and Community Disaster Management committees (VDMCs and CDMCs) established, with participation and representation of women community members, lack awareness on community-based approach, disaster risk reduction, and identification of the strengths and weaknesses of their existing livelihood systems. The committees are basically used for the implementation of disaster relief responses, which is one role they need to play, not the sole and main role. There is a role before and post disaster situations. It is imperative for the partner staff to have clear understanding about institutional mechanisms on disaster risk management in order to train and support disaster management committee members.

Contingency Plans and Stocks

Prepared contingency plans may be shared, updated regularly (at least before monsoon) and disseminated to the community members. In-addition, there is need to create mass awareness on existing contingency plans, stocks and traditional methods such as preserving dry food and cash savings for flood. The messages should target vulnerable families, VDCs, other agencies and the local government.

Early Warning Systems

Develop effective early warning systems that combine scientific knowledge and traditional wisdom can help in reducing risk and help communities and share with the communities. The early systems can be developed between downstream and up stream and can be also shared with the district and national government.

Food Security

The analysis shows that food security scenario in the area is shows a chronic problem. Most of the families have food availability before floods and post floods that deteriorate. Livelihood enhancement activities initiated by the partners and that focus on women should be taken up at a larger scale. Different other innovations on food security can be designed.

Public health

The gap on public health capacity is very evident, from the design of latrine and drainages at water distribution systems in the RBP programme. Latrine type and design that is been is not appropriate or replicable by the community. Last year in the DIPECHO programme (supported by Oxfam GB), CDM has implemented latrines with superstructure using local material, and there was no reason why the similar types of latrines cannot be adopted for the RBP programme. There is no timely monitoring of activities; for example, at *Mushar Tole* in Mahottari district all 16 latrines attempted are not completed. Work on digging of the pits, lining with concrete and putting cover slab is done, but the superstructure is remaining. Funds spent on these uncompleted works could have been used on something else that could have benefited the community. Water quality is other area that needs to be looked. The partners will need and can benefit from technical support and timely monitoring from Oxfam. This will help to demonstrate good practice and identify alternative approaches

The evaluation team is of the view that public health awareness raising training is a pre-requisite for the partners' staff and communities to understand the importance of public health and its relations/impact to disaster risk reduction interventions.

Introduction of Biogas and energy saving stoves

Availability of fuel for cooking is very limited in all the villages. The community are mainly dependent on dried cow dung. Some of the partners have been working on energy saving stoves and community have adopted biogas system. This can be followed up further, and its viability tested. The set up of biogas system does require initial capital but it has an advantage in solving sanitation problem, with by-product of renewable energy for cooking and manure for agricultural field and at the same time helps prevent deforestation.

Flood shelters and other small-scale mitigation activities

More flood shelters are needed and especially in villages where disasters are frequent and targeting vulnerable people. The location and size of the flood shelters needs to be decided in discussion with the community members. Appropriate facilities for men and women (e.g. water and sanitation) needs to be taken into account in flood shelters. Possibilities of having separate space for livestock and household assets should also be explored.

Advocacy

The RBP programme is addressing the need of poor communities who are marginalized both economically and politically. The historical reasons for marginalisation are poverty and are at the lowest strata of lower class. Among these households about 47% HHs do not own land. Unless they have access to own land, it will be difficult for these people to come out from their vulnerable situation. Partner agencies and Oxfam need to work out an advocacy strategy to lobby with responsible authorities for the rights of these marginalised people and acceptance by the higher-class members of their community. The advocacy and lobbying experience of KVS partner can be used can be shared with all the other partner agencies¹⁰.

The programme needs to have a campaigns and advocacy framework through which programme can identify advocacy issues, and develop methodology for campaign. Influence the District Natural Disaster Relief Committee and national government on certain key issues like planning before monsoon season, resource allocation, quality response, early warning can also be potential issues for advocacy.

Gender and RBP programming in Nepal

Gender issues need to be addressed in all aspects of programme implementation in the RBP programme, right from project planning, to design, site selection for latrine, tube well, awareness raising on rights, health, family planning, training on leadership development and resource mobilisation and resource management. At the moment women are represented in the disaster management committees at village and community level, but this should not remain to be nominal representation, more support is required to have women play equal role with their husbands on matters and have access to resources and involve in decision making. During the FGD, the men and women expressed the view that women are now able to come out for meetings and share their views with community members, which was not the case earlier.

Targeting

Better targeting of the most vulnerable communities especially during provision of sanitation facilities /latrine construction. The vulnerable communities who did not have proper shelter to live were missed. In such situation, provision of communal latrines could have been considered in consultation with the communities. Selection criteria for beneficiaries need to be developed and understood and agreed by all staffs. Follow-up mechanism should review at Oxfam and partner level to ensure systematic support to the beneficiary.

Long-term programming and lesson learnt

It is necessary to have greater impact from DRR programming. RBP /DRR programme in Nepal have been going on for the last 6-7 years, but the partnership with the current partners started in 2005-6, i.e. what ever experience from the previous partners is lost, and we seem to be starting all over again. It will be good to build on the experiences attained from earlier interventions. This is also the case with in Oxfam staff as well, most of the current DRR team have started 2-3 years back, there should be a mechanism for transfer of experience and lessons learned from previous to new staff members.

¹⁰ KVS lobbied for compensation for the people who were displaced from their agricultural fields when the Koshi river dam was constructed by India inside Nepal and still active on different flood management issues.

Appendices: Table of partners

Name of partner NGO	District	VDC	Name of Village
Indreni Rural Development Centre (IRDC) Nepal	Kapilbastu	Motipur	1. Pragatitoli CDMC Prgatitole
			Balapur CDMC Balapur
		Kopawa	Dhaneshpur CDMC
			Gairigaon CDMC
	Rupandehi	Roinihawa	Suthauli
		Roinihawa	Bankashiya CDMC
		Thumhawa Piprahawa	Chakiaya
		Bhagwanpur	Bharvaliya
	Nawalparasi	Rampurkhaduna	Bhatauli
			Bhartapur
	Mohattari	Matihani	Khairenikutta
			Madhuliya 8
			Madhuliya 9
			Khadauna 7
		Dhirapur	Kaushal Nagar
			Basbair Toll
			Khatway Toll
		Simardahi	Bhagwatti Toll
			Khatway Toll
			Das Toll
Gonarpura		Sahani Toll	
		Muslim Toll	
	Thadi Toll		
Hanumannagar	Mushar Toll		
	Bichala Toll		
Gobargadha(3,8,9)	Purwari Toll		
	Launiya VDC	Naya Toll	
Rampura Malhaniya	Launiya VDC	Bajrang Toll	
		Mushar Toll	
	Rampura Malhaniya	Mushlim Toll	
		Lilja Thakur Flood CDMC ward no-6 Hatiya tole	
Rampura Malhaniya	Gobargadha(3,8,9)	Gobardhan baba CDMC Plar Village/Tole Ward no -1,2	
		Baba Umeshwornath Food CDMC Ward no-2	
	Rampura Malhaniya	Launiya VDC	Ram Janki Flood CDMC Ward no-3
		Rampura Malhaniya	Tri netra Flood CDMC ward no-4
Rampura Malhaniya	Rampura Malhaniya	Salwa Flood CDMC ward no-3	
		Dalwa	
Rampura Malhaniya	Rampura Malhaniya	Rampur Malhaniya 6	

© Oxfam GB 2008

First published online by Oxfam GB in 2010.

This document is part of a collection of programme evaluations available from Oxfam GB in accordance with its evaluation policy.

This document was originally written for internal accountability and learning purposes, rather than for external publication. The information included was correct to the evaluator's best knowledge at the date the evaluation took place. The views expressed in this report are those of the author(s) and do not necessarily reflect Oxfam's views.

The text may be used free of charge for the purposes of advocacy, campaigning, education, and research, provided that the source is acknowledged in full. The copyright holder requests that all such use be registered with them for impact assessment purposes. For copying in any other circumstances, or for reuse in other publications, or for translation or adaptation, permission must be secured and a fee may be charged. Email publish@oxfam.org.uk

For further information on the issues raised in this document email phd@oxfam.org.uk

Oxfam is a registered charity in England and Wales (no 202918) and Scotland (SC 039042). Oxfam GB is a member of Oxfam International.

www.oxfam.org.uk