Final Evaluation Report of
KAILALI DISASTER RISK REDUCTION INITIATIVES

MERCY CORPS NEPAL

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FINAL EVALUATION REPORT OF
KAILALI DISASTER RISK REDUCTION INITIATIVES
(SUPPORTED BY DIPECHO)

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Project Title: Kailali Disaster Risk Reduction Initiatives (KDRRI)
Implementing Agency: Mercy Corps Nepal
Donor: European Commission
Project Start Date: 01 November 2007
Project End Date: 30 April 2009
Project Duration: 18 months
Duration of evaluation: 22 days
Field visit dates: May 7-14, 2009

Principle Objective: To reduce disaster risks in Nepal through increased awareness and capacity of vulnerable communities to prepare for and respond to frequent natural disasters

Specific Objective: To ensure that vulnerable communities and institutions in Kailali District are better prepared to respond to natural disasters, are linked into district and national response systems, and contribute to shared learning on risk reduction practices

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Acknowledgements

We would like to acknowledge the Kailali District Chapter of the Nepal Red Cross Society and Mercy Corps Nepal, which together implemented the Kailali Disaster Risk Reduction Initiatives (KDRRI) Project, for their professional support during field consultation as well as at a consultation meeting with district level stakeholders in Dhangadhi, Kailali. We are particularly grateful to Mercy Corps Nepal and to the project management team for their feedback on and suggestions about our conceptual framework and methodology as well as on the draft report. We are also grateful that Mercy Corps Nepal entrusted us to conduct this evaluation.

This evaluation report has been possible because of the support of so many people personally and professionally. We would like to extend our sincere gratitude to all persons who contributed to this evaluation in many different ways: by sharing their experience, thoughts and opinions about the project, and by contributing time, advice and hospitality. First, we would like to acknowledge the hard work that is being done by the many active, community based teams and groups organized under the DIPECHO project. Next, our particular thanks go to all project staff and people involved from partner Nepal Red Cross Society (NRCS) that is excellently prepared the evaluation process and arranged our field visit on the field sites. Their dedication, input and willingness to share about critical issues were extremely valuable.

The evaluation team is indebted to disaster preparedness committees' members, community members and stakeholders, including teachers and students of Bisanpur, Jokahiyapur, Lalitpur, Manikapur, Mohanpur, and Shivaratnapur communities. Additionally, it would not have been possible to complete this evaluation without the support, patience and co-operation from village development committee officials and district stakeholders. We were encouraged when people accepted our presence, answered our queries passionately and made us internalize the key project achievements and outcomes. Therefore, we remain obliged to them.

We are grateful to KDRRI team and Mercy Corps Nepal team for their feedback and suggestion in the methodology as well as coordination of the whole evaluation. The painstaking efforts made by Ms Tulasi Thapa, Field Supervisor of NRCS during the whole evaluation administration were highly commendable.

Last but not least, our thanks go to all senior personnel from Mercy Corps who entrusted us with the task of conducting this evaluation.

Thanks.

Dhruba Raj Gautam, Khadka Raj Bhatta, Pushpa Raj Sharma and Jarrod Fath

Kathmandu
May, 2009
Executive Summary

1. Background of the Project and this Evaluation: Mercy Corps (MC) Nepal, in cooperation with the Kailali District Chapter of the Nepal Red Cross Society (NRCS), implemented Kailali Disaster Risk Reduction Initiatives (hereinafter called “the project”) in six communities along the Mohana River and its tributaries in Kailali district, Far-west Nepal. The project was financially supported by the European Commission through its Humanitarian Aid department as part of the 4th DIPECHO Action Plan for South Asia. The project’s principle objective, was “to reduce disaster risks in Nepal through increased awareness and capacity of vulnerable communities to prepare for and respond to frequent natural disasters” and its specific objective was “to ensure that vulnerable communities and institutions in Kailali District are better prepared to respond to natural disasters, are linked into district and national response systems, and contribute to shared learning on risk reduction practices.” The project was initially to be implemented over 15 months, but was granted a one month no-cost extension after submitting the intermediate report. In September 2008, a large flood, the worst in 25 years, hit Kailali district, necessitating a two-month suspension of the project. With these amendments, the project ran for 18 months, from November 2007 to April 2009.

MC Nepal commissioned this external evaluation to be conducted in May 2009, shortly after the completion of project activities in April. The overall objective of this evaluation was to analyze the achievements and limitations of the project. However, it is also seen as part of MC’s learning and therefore contains recommendations regarding MC’s future support for disaster risk reduction (DRR) interventions in Nepal. The evaluation methodology consisted of a review of secondary information as well as the gathering of primary information through field visits, consultations with MC and NRCS staff and district-level disaster preparedness (DP) actors. Focus group discussions, key informant interviews and transect walks methods were used to explore the overall achievements of the project.

2. Fulfilment of Key Results and Objectives: The project has laid out five results it would like to achieve: capacity building through setting up disaster preparedness committees (DPCs) with support at the Village Development Committee (VDC1) level; developing an early warning system (EWSs); implementing small scale mitigation works; building disaster preparedness into the education system; and facilitating coordination amongst actors working on disaster preparedness.

Result 1a was framed as “DPC set up and/or strengthened to better manage disaster risks”. The project established gender- and socially-inclusive committees to promote DP-related activities and to mobilize local people in reducing disaster risks. This inclusive approach helped increase social interactions among community members, irrespective of their gender, caste and/or class, in turn strengthening social harmony between hill migrants and Tharu groups native to the plains. Street drama inspired community members to develop rules and regulations to protect riverbanks and control grazing. In part because of strong gender- and socially-inclusive DPCs, enhanced confidence and self-reliance, new ideas learnt from street dramas and video documentaries, the project beneficiaries are more capable of managing disaster risks. The provision of equipment and skills and the execution of community-based, dynamic DP plans have further increased their resilience.

Result 1b states “Four VDCs where DP-relevant support institutions are able to sustainably support DP activities and raise DP awareness.” Each DPC has prepared a community-level DP plan after carrying out vulnerability, capacity and needs assessments. Additionally, stakeholders from the respective VDCs became involved in project activities through resource sharing and information dissemination, mainstreaming DRR into their plans and programs. Each VDC now has a village disaster management committee (VDMC) coordinated by the VDC secretary and involving DPC representatives and VDC-level DP actors. VDC secretaries oversee the formulation and execution of VDC-level DP plans, which are an amalgamation of community-level DP plans and other pertinent DRR issues. Because collaboration and joint action has increased DP awareness and because organizations function in coordination, it will be easy to formulate, activate and execute VDC-level

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1 “Village Development Committee” is an administrative unit in Nepal, generally corresponding to clusters of 9 wards.
DP plans; promote sustainable support for DP activities; and raise DP awareness in and around the four project VDCs.

Result 2 reads "Six communities with tested local EWSs and communication systems." The EWSs were established, with a two-way flow of information between project communities and strategic points upstream, including Department of Hydrology and Meteorology (DoHM) and other communities. Project communities learned how knowledge about and measurement of average water levels and higher “warning” levels can be translated into preparedness in their communities. Local-level flood observation posts are easy to interpret and therefore effective in warning communities. When water levels rise to dangerous levels, committee members will sound an alert through sirens, bull horns and telephones to warn the entire community. Additionally, the project mobilised local FM stations to disseminate emergency news, weather-related bulletins, and DRR-related jingles in local dialects.

Each DPC is equipped with emergency and first aid kits well-stocked with high-quality equipment and members understand how to use each piece of equipment. The project completed all the major training and simulation exercises it had planned for before the monsoon. By establishing a local communication system, strengthening local EWS both at the community and watershed level, and equipping locals with the equipment and skills needed to deal with risks, the project has indeed enable people to be prepared in advance of a disaster.

Result 3 is phrased as "Four VDCs with community-led small-scale infrastructure and bio-engineering mitigation projects to mitigate against hazards.” The project did in fact provide support for constructing small-scale infrastructures to mitigate against hazards. Safe shelters are well-designed and enable people to live without fear during flooding. Each shelter is linked to a safe evacuation route, has ramp access for the disabled, is surrounded by a railing and has hand rails in the toilets. The project helped conserve a total of 1995 meters of riverbank through bio-engineering work chosen after conducting a river study. People experience that bio-engineering has prevented the loss of cultivable lands, housing and small infrastructures. Realizing the importance of local-level efforts in minimizing disaster risks, the six communities have saved a total of NRs. 185,802 and the project has contributed an additional NRs.35,209 to each as part of emergency and maintenance fund. As this fund has grown, communities have been more generous in their assistance to others.

"Eight Young Rescuers Clubs set up in local schools to pass on knowledge in DP to younger peers” is Result 4. Realizing the students serve as “agents of change,” young rescuer club (YRC) were set up in eight schools. In each school, the YRC members are key actors and have successfully passed on information about DP to other students. The project designed orientations and trainings to build the capacity of teachers and YRCs and involved them actively in establishing nurseries, filling polythene bags and plantation within school premises and along riverbanks. Teachers are now motivated to introduce the concept of the disaster management cycle to YRCs and students. School-level simulations and a review of the formal curriculum created a suitable environment for writing and executing school-level DP plans. The renovation and improvement of toilets, the organization of sanitation campaigns around the school and plantation within school compounds are some of the outcomes of DP plans.

Result 5 states “Project results and lessons contribute to Hyogo Framework for Action (HFA) and shared at district, national and global level.” Information education and communication (IEC) materials were developed to increase awareness about DP. Gender-and culture-sensitive and field-tested IEC materials to ensure that no points were misunderstood. Volunteers disseminated each message using door-to-door campaigns. The project developed good practices documents, a video about EWS and about the project and a case study about contribution of project towards HFA’ based on its learning. By sharing the key lessons it learned during trainings, workshops and conferences, the project strengthened policy advocacy.
3. Limitations: The project was able to overcome several challenges and hindrances in order to bring about significant outputs. First, some training programs were delayed because local-level qualified and relevant resource persons were not available. Second, about two-and-a-half months of work was lost to strikes and bandhas. Third, it was difficult to even find the construction materials needed and price hikes rendered them still more out of reach. Fourth, because of the September 2008 flood, the early onset of the rainy season, and an extraordinary two-week closure because there were no textbooks, the school-level project activities were delayed by three months.

4. Project Efficiency and Effectiveness: There are several indications that the project was carried out efficiently. The project successfully involved the deprived and marginalized sections of society in designing, planning, implementing and following up on project activities, which were low-cost, local resource-driven, and indigenous knowledge and skill-based. It celebrated international days and ran start-up and completion workshops and various trainings jointly with Care Nepal to cut costs. Despite its limited resources, it managed to carry out bio-engineering work on a wide scale. Community contributions exceed more than 90% in activities like the construction of safe shelters and bio-engineering. Effective monitoring systems made sure activities ran smoothly.

In addition, there is considerable evidence of the effectiveness of the project. The project was able to complete the majority of its activities within the set timeframe and before the danger of any flooding. It exploited the strengths of youths, in part by forming youth groups and YRCs in neighbouring communities and their schools. In general, the NRCS's proven relationship with communities and schools made it easy to administer the project. River protection work was chosen so that there would be no harm done to other river communities and public auditing is carried out at the community level to ensure work will be transparent. The efficiency and effectiveness of the project has resulted in its sustainable results.

5. Empowerment and Capacity Building: The project made sure that different groups of people were meaningfully represented in DPCs, sub-committees, YRCs, and street drama teams and that they participated fully in project activities. Beneficiaries were more confident about making their views known. Participatory decision-making resulted in the initiation of equitable resource collection. Trainings and orientations built the capacities of women and other vulnerable groups to participate in and contribute to the decision-making process.

6. Effectiveness of sharing Training Knowledge among the Students: The project has helped increase awareness among children through training, orientation, simulation and co-curricular activities. The intra- and inter-school simulations were very effective in increasing knowledge and information about DP and DRR. Since awareness sessions used a variety of techniques, including art, essays, speeches, games, charts, and pictures, children enjoyed themselves as they learned about DP and DRR at the individual, family and community level. Employing a participatory process for formulating the DP plans at each school widened their knowledge of DP and DRR.

7. Project Design and Methods, Management and Implementation Processes: The project established gender- and socially-inclusive community-based institutions, built their capacities and mobilized them to reduce disaster risks at the micro level and helped them coordinate and link with local-, district- and national-level stakeholders at the macro level. The modality of project management at the national, district and community levels was sound and effective and roles and responsibilities were clearly allocated. Planning and evaluation were appropriate and adequate, and the project’s internal monitoring mechanism effectively and objectively tracked verifiable indicators for each result. Monthly meetings have enlarged the scope for sharing and cross learning among DP actors. The overall management was highly participatory and ensured that every member had space to build on his/her existing strengths and to learn new ideas. The management style within the project was democratic: it fostering a sense of team spirit and belonging. Adequate attention was given to accountability and transparency, values laid out in MC's strategic document. These facts suggest that project design is adequate and appropriate to meet its specified goals and outputs.
8. **Project relevance**: The selection of target groups and project communities from the most vulnerable riverside communities made sense and the project reached out to those sections of society which have thus far benefited little from development initiatives or have even been excluded. The size—just six communities—is just right to develop a social laboratory for other DP actors to observe. The project addressed the burning issues of gender inequity and women's empowerment and using a resource sharing mechanism to make sure that other central issues are also addressed. The project’s main mandate was closely correlated with local and national plan and policy contexts and MC Nepal’s DRR strategy was akin to DIPECHO’s mandate for DRR.

9. **Sustainability**: The project’s efforts in capacity-building have resulted in linking vulnerable communities with VDC- and district-level DP actors and have enhanced the organizational and leadership capacities of both NRCS and DPCs. The future presence of NRCS within and around the project communities will help ensure project initiatives continue to be pursued. EWSs are likely to continue to function because they exploit the existing cultural milieu and value system and as aghariya have assumed flood monitoring responsibilities sincerely. Local FM radios have stated that they are also committed to continue broadcasting weather reports in easy-to-understand terms and use local dialects. The Mohana watershed EWS design committee has also promised to launch EWS before the 2009 monsoon.

The project has planned well to ensure the sustainability of small-scale mitigation work by linking DPCs with district-level DP actors who can supply resources. Other steps guaranteeing sustainability are the translation of rules and regulations into actions, the provision for operation and maintenance plans, and the collection of emergency and maintenance funds. It is likely school-based activities will continue too, as YRCs have discovered they can make a difference and teachers are dedicated to imparting new information to their students. The fact that a good working relationship between DPCs and district government agencies was established through project steering committees also bodes well for long-term continuation.

10. **Replicability**: Even the short project's tenure, it has seen some of its good practices replicated within and outside of the project VDCs. These include generating emergency and maintenance funds, installing raised hand pumps, constructing boats and raised evacuation roads, implementing bio-engineering work, establishing nurseries, managing EWSs, founding YRCs at schools, and performing street drama.

11. **Impact**: The project’s impacts are many. People have identified areas of vulnerability and risk and the strategies and actions needed to minimize them. They have changed their beliefs about the causes of disasters and no longer attributing them to God’s will. Having seen what DPCs, their sub-committees and VDMCs can accomplish, people have begun to nominate more local people for roles in other community based organizations (CBOs). At the individual level, people are more familiar with the dos and don'ts before, during and after disasters. At the family level, they now make two-storey houses so they can store grain and live upstairs during floods, make bhakari to store grains, and keep important documents in safe places. Additionally, families have begun to increase the foundation of houses and move houses away from risky areas. Making earthen dikes to hold back floodwaters, constructing raised evacuation routes and identifying safe places during emergencies are some DP practices at the community level. A newfound belief in the power of teamwork has strengthened the sense of social solidarity and neighbourliness. People have begun to use land reclaimed along riverbanks to farm cash crop, though this is a small-scale initiative, it has changed people's lives and livelihood.

12. **Areas for Improvements**: Though the project has seen very good results within a short period of time, there is room for improvement. First, more preparation for activities is needed: Listener surveys conducted before fixing the content and timing of the radio program, and to ensure long-term success and steady growth requires that activities be followed by a review of and reflection on learning and

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2 An agharia is an assistant to a bhalmasha who circulates messages to local people as instructed by a bhalmasha.
3 Wooden vessel mostly used to store the grains. It is more secure then the earthen bhakari.
those strategies to mobilize external resources be put in place. Implementation can be facilitated by giving students more priority. Finally, to make sure the project’s efforts are not isolated ones, there is a need to generate synergetic impacts within and outside the target communities and advocate for the formulation of district-level DP plans.

13. Recommendations: The following recommendations are based on our analysis of the overall findings.

i. **DPCs are the key institutions within the community to coordinate and linkage with local level stakeholders.** DPC-led monitoring systems should be strengthened to draw the enough attention of local stakeholders towards DP initiatives. A culture of inter-community self-evaluation visits followed by participatory reviews and reflections should be established as a process to learn and make immediate feedback to each other.

ii. The project has facilitated to form VDMC in each VDC under the policy provision of National Disaster Management Strategy of Nepal. It is itself an admiring effort. This is the lead committee to oversee the disaster related activities within the VDC. But these committees are not properly institutionalized. Therefore, the capacity of each VDMC should be strengthened to facilitate in executing VDC-level DP plan. Equally, project should facilitate to form district-level disaster networks to give more voice to disaster-affected people.

iii. There is a strong link between community- and VDC-level DP plans, but for them to be executed and supported in the long term, these plans need to be linked with district-level DP plans. Therefore, the project should advocate for the formulation of a district-level DP plan for their proper linkages.

iv. Watershed-level early warning practice is as important as community-level practice; in fact, the latter is dependent on the former. In order to scale up good initiatives at the watershed-level early warning practices, the capacity of the EWS Design Committee should be strengthened for resource generation. Coordination and linkages between EWS Design Committee with DoHM should be established to get regular technical backstopping for EWSs.

v. Carrying out public audits to ensure transparency is a laudable idea, but the public auditing package should be designed so that it covers programmatic as well as financial aspects. Public audits should be carried out at the middle and end of the project tenure to ensure transparency and to gauge performance evaluation of the project activities.

vi. The sustainability of good project initiatives depends upon whether or not the district government exhibits a sense of ownership over them. It is good to see that government agencies and local authorities have started to support DP initiatives by sharing resources and technical expertise. Proper advocacy and lobbying should be continued for garnering external resources as well as technical backstopping from district government.

vii. To make sure good practices mature, the project should continue providing limited support in the project communities. Some institutional support for DPCs and VDMCs and assistance in linking project communities with district and national response systems is needed. Because the project’s results were so good, it is strongly recommended that a new project should be launched among the vulnerable communities of single watershed within Kailali District to demonstrate the best possible options in preparing for and responding to frequent natural disasters.
# Executive Summary

The project aims to improve the quality of education through the implementation of innovative teaching methods and technologies.

## Key Findings

1. **Efficiency and Effectiveness**
   - Significant improvements in student performance.
   - Enhanced teacher effectiveness.

2. **Empowerment and Capacity Building**
   - Improved teacher skills and confidence.
   - Increased student engagement.

3. **Sharing Knowledge and Collaboration**
   - Effective knowledge sharing among teachers.
   - Improved collaboration among stakeholders.

4. **Project Relevance**
   - The project remains relevant to the educational needs of the community.

## Impact

The project has had a positive impact on student learning outcomes and teacher performance.

## Replicability

The project model can be replicated in other educational settings.

## Recommendations

- Further research is needed to evaluate long-term impact.
- Continued support is required for sustainability.

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1. INTRODUCTION

1.1 The Context

Mercy Corps (MC) Nepal, in cooperation with the Kailali District Chapter of the Nepal Red Cross Society (NRCS), implemented Kailali Disaster Risk Reduction Initiatives (hereinafter called “the project”) in six communities--Manikapur and Bisanpur of Pabera Village Development Committee (VDC), Lalitpur of Phulbari VDC, Shivratnapur and Mohanpur of Hasuliya VDC, and Jokahiyaipur of Ratanpur VDC. The funding for this project was available under the 4th DIPECHO Action Plan for South Asia, a programme under the aegis of the Humanitarian Aid department of the European Commission (DG ECHO). The project directly reached a total of 2,475 residents and 5,785 students (510 students from the target communities and 5,275 students from non-target communities).

The project aimed to build safer communities by implementing disaster risk reduction (DRR) measures in collaboration with communities and relevant stakeholders, including the government. It focused on five key thematic areas: capacity building, early warning systems (EWSs), small-scale mitigation, education, and facilitation of coordination.

1.2 Overview of the Project

The project was initially to be implemented over 15 months, but was granted a one month-no-cost extension after it submitted its intermediate report. In September, 2008, a large flood, the worst in 25 years, hit Kailali district, causing another two month suspension of the project. Consequently, the project ran for 18 months, from November 2007 to April 2009. Its principle objective was “to reduce disaster risks in Nepal through increased awareness and capacity of vulnerable communities to prepare for and respond to frequent natural disasters,” and specific objective of the project was “to ensure that vulnerable communities and institutions in Kailali District are better prepared to respond to natural disasters, are linked into district and national response systems, and contribute to shared learning on risk reduction practices.” The project worked in five major areas to achieve this objective:

1. Building local capacity through the formation of six disaster preparedness committees (DPCs), linked into support institutions at the VDC level
2. Setting up and test local early warning and communications systems
3. Community-led, small-scale infrastructure and bio-engineering mitigation projects to mitigate against hazards
4. Set up “Young Rescuer Clubs (YRCs)” in eight schools to pass on knowledge about disaster preparedness (DP) to younger peers
5. Project results and lessons contribute to Hyogo Framework for Action and are shared at the district, national and global level.

2. BACKGROUND TO THE EVALUATION

2.1 Objectives of Evaluation

The overall objective of this evaluation was to analyze the achievements and limitations of the project. However, it is also seen as part of MC’s learning and therefore contains recommendations regarding MC’s future support for DRR interventions in Nepal. Specifically, it does the following:

- Assesses the adequacy of its design to meet its goals and outputs
- Analyses the efficiency, effectiveness, and impacts of project activities and assesses the measures taken to ensure the sustainability of those activities
- Evaluates how successfully the project empowered communities, particularly how much it built the capacities of women and other differentially vulnerable groups to participate and contribute to the decision-making process
- Considers the replicability and sustainability of project activities, particularly in terms of EWSs, small-scale mitigation measures and DPCs
- Assesses the ability of DPCs to mobilize, organize and train other communities
- Analyses how effectively children were trained to share knowledge with other children
- Reviews the implementation and management procedures of the project

2.2 Evaluation Methodology

This report was prepared based on a field study conducted in the project communities as guided by the terms of reference (see Annex 1). The project proposal, intermediate report, progress reports and project-related documents were reviewed before preparing checklists and question guidelines (see Annex 2) to administer in the field. Fieldwork was conducted between 6 and 14 May, 2009 (see Annex 3) after consulting MC Nepal and NRCS field staff about the project’s key areas of intervention. Focus group discussions were carried out with DPCs and their sub-committees, youths, students and teachers to get insight into the project’s key accomplishments. Key informants interviews were conducted with VDC-level stakeholders; CBOs including school management committees (SMCs), community forest user groups (CFUGs), water user groups (WUGs), and saving and credit groups, YRCs, teachers and traditional leaders, (including bhalmansha and aghariya) to find out their views. Transect walks were used to observe the extent and benefits of the structural mitigation work carried out to reduce disaster risks. A meeting with school teachers and students (see Annex 4) was held to determine the level and extent of awareness about preparing for and responding to disaster risks. Another meeting was organized with local-level stakeholders (see Annex 5) to record their feedback. Towards the end of the fieldwork period, a separate meeting was organized with DPC coordinators and secretaries (see Annex 6) for them to validate the information collected. Sharing meetings with district-level stakeholders (see Annex 7), including the district technical, forest and soil conservation offices, the Department of Water-Induced Disaster Prevention (DWIDP) and Department of Hydrology and Metrology (DoHM), the Conscious Society for Social Development, Dinesh FM Radio, NRCS and Backward Society Education (BASE) officials served to identify the level of coordination, networking and resource sharing.

3. FINDINGS AND ANALYSIS

3.1 Fulfilment of Key Results

Result 1.1: Six DPCs will be set up and/or strengthened to better manage disaster risks.

Key achievements:
a. Establishment of gender and social inclusive DPCs
To promote DP-related activities and mobilise local people in reducing flood risks, six gender- and socially-inclusive DPCs, one in each project community, were formed. Representation of the Tharu ethnic group was 91% and of hills Dalits 5%. The community of Shivaratnapur included a disabled individual and a widow. The provision that at least one DPC member had to be an ex-officio member of each sub-committee established a culture of sharing and understanding between DPCs and sub-committees. The inclusiveness of the DPCs had several benefits. First, social interaction irrespective of gender, caste and class has been increased and social harmony between hill migrants and Tharus strengthened. Second, it has made it easier to network, coordinate and build rapport among village-level stakeholders for resource sharing. Third, women are more vocal, confident and

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4 These sub-committees include nursery management, early warning, procurement and accounting, community mobilisation, and search and rescue.
5 A bhalmansha is a traditional Tharu leader or village guardian selected or elected every year during the Maghi festival to run village systems. It is a highly respected position found only in Tharu-dominated villages.
able to interact with outsiders. This has all lead to the groups being more actives, including coming up with ideas about how to get extra resources from the VDC and government offices in Dhangadhi. Lalitpur women, for instance, managed to convince the local CFUG to give them wood to build a boat. Inspired by a study visit to Nawalparasi, the six DPCs are in the process of registering themselves at Kailali District Administration Office as local NGOs. Once registered, they can look forward to future partnership and collaboration with government organizations and donors.

b. Enhanced confidence and self-reliance through awareness and capacity building
The project initiatives have helped enhance the self-confidence and self-reliance of the participating communities. A total of 1,640 persons were trained through community-level trainings and workshops on topics including first aid, disaster risk management (DRM), and search and rescue, among others (see Annex 8, tables 1a, 1b, and 2 for full list of trainings and attendance). Awareness of DRR extended beyond the primary target communities, reaching a total of 27,903 people through street drama events, door-to-door campaigns, exposure visits, simulations and video shows (see Annex 8, table 2). Local capacity was also built in support organizations as 138 staffs, NRCS and district level stakeholders through proposal writing, community risk assessment and DRM trainings and organizational development workshop (see Annex 8, table 2).

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<thead>
<tr>
<th>Objective Verifiable Indicators for Result 1.1</th>
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<tr>
<td>● 6 (6) gender-balanced DPCs with representation from people with disabilities, the elderly, youth and low-income households</td>
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<td>● 6 (6) DPCs trained in community management meet regularly and document decisions</td>
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<td>● 6 (6) each community risk assessments, KAP surveys and training needs assessments undertaken</td>
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<td>● 180 (228) members of DPCs have basic skills in and the required equipment for emergency response and first aid</td>
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<td>● 6 (6) DP Plans prepared, adopted and reviewed after simulations and the monsoon season</td>
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<td>● 12 (6) successful simulations carried out in each community utilizing the skills and coordinated efforts of trained members</td>
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<td>● 600 (4184) community members with emergency simulation experience and knowledge of DP plans</td>
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Note: The numbers in parentheses represent achievement against target
Training and simulation have increased the resilience of communities to disaster risks and boosted their conceptual and practical knowledge. The culture of helping also increased and communities have begun to raise support for other vulnerable communities. Mohanpur, for instance, helped Sohanpur advocate for relief after the flood of September 2008 flood by getting them in touch with NRCS and MC Nepal. Additionally, locals says they better understand the importance of social solidarity. For example, a decade-long conflict between Tharus and Dalits over public land in Lalitpur was finally able to be resolved. In another example of increased social unity, Shivaratnapur and Jokahiyapur DPCs invited Khonpur and Bhitariya communities, respectively, to collaborate in their plans to deal with flood risks. The idea of making emergency and maintenance funds was an outcome of capacity-building initiative.

Cross visits successfully brought behavioural changes. For instance, Mohanpur learned about toe protection and bio-engineering techniques from Bisanpur and Lalitpur. In emulation of Bisanpur, the Lalitpur community plans to make wooden spurs to protect their bio-engineering work. Even areas outside the project have been inspired as Phulbari-7, Shivtal constructed 100 metres of bio-engineering work.

The trained DPCs meet regularly and document their decisions about actions. The have conducted community risk assessments, which have increased awareness about different types of risks and their underlying forces and factors. Knowledge, Attitude and Practice (KAP) surveys captured people's knowledge, attitudes and practices before the project was implemented and set a benchmark for comparison. The provision for conducting refresher trainings for DRM, first aid and search and rescue helped promote knowledge management. Both the methodology and content of almost all trainings was relevant. The only exception was the training for trainers in proposal and report writing, whose content did not match the abilities of the participants. Though some people still favour long trainings, most appreciated that short trainers enable daily wage labourer to participate as well. It was found that training program should be seen as a process rather than as an event and it should be allied with the community’s seasonal calendar.

Box 1: We are confident to deal with disaster risks

"Before the project, we did not work together to deal with floods and we were hopeless. We had neither the skills nor the knowledge nor a plan to deal with disaster risks. But now we are quite happy: we learned a lot from the project about making, strengthening and managing a community disaster risk plan. We learned how to deal with disasters—before, during and after they occur. Another benefit was that the project helped us link our plans with VDC-level DP Plan. I am sure that we will get some resources from the VDC to execute DP Plan. I am confident that we will not face the same extent of destruction as we did in the past."

--Mr Man Bahadur Chaudhary, DPC coordinator, Bishanpur
c. Increased awareness from street dramas and video documentaries
The project organized 51 street drama events (34 on flood preparedness and 17 on hygiene and sanitation) watched by 9,299 female and 8,743 male spectators in project and neighbouring communities and schools. Interviewees said the events were effective in making them aware of the types of disaster risks and how they themselves can minimize and cope with them. Each event was popular and successful in getting people to think differently because plays were performed in Tharu, the local dialects, because their content was based on local realities and because the actors were trained and qualified local people. Another important initiative was using Dinesh FM radio to broadcast recorded and live performances of street drama to extend their reach. The drama team also organized events in the neighbouring villages, including Bhuiyaphata, Hasanpur, Khonpur, Lalpur, Bhitariya, K-gaon, Chotki and Badki Paliya, I-gaon, J-gaon, Krishnanager, and Tigri.

Street dramas inspired communities to develop rules and regulations to protect riverbanks and control grazing. The Jokahiyapur community said it was able to evacuate and rescue people during the September 2008 flood because of what they had learned from the plays they watched and all now forbid children to swim in the river during the monsoon. In short, behaviour was changed and confidence built through drama.

Videos documentaries also generated awareness among the illiterate, helping them to understand how people in similar situations manage disaster risks by mobilizing local resources and convincing them to do so. As a direct result of the showing of such documentaries, villagers began to conserve riverbanks by controlling grazing, implementing agro forestry-based income-generating activities, and cultivating cash crops on degraded banks.

d. Formed community-based DP plans
After participating in trainings, simulations, and study tours, each DPC was motivated to prepare a community-level DP plan. The simulations successfully carried out in each community have made people realize the importance of DP plans. All include activities like search and rescue, safe evacuation, community nursery management, construction of evacuation routes, river monitoring, plantation along riverbanks and expansion of bioengineering activities as well as operation and maintenance procedures. The plans were formulated only after vulnerability, capacity and needs assessment exercises were conducted.

The DP plans have proven to be dynamic, being modified as people learned more from a series of simulations. The process of planning has encouraged communities to be creative in coming up with solutions for their own problems, to assume their roles and duties responsibly, and to solicit resources from VDC and district agencies to execute the plans.

In part because of strong gender- and socially-inclusive DPCs, enhanced confidence and self-reliance, new ideas learnt from street dramas and video documentaries, the project beneficiaries are more capable of managing disaster risks. The provision of equipment and skills and the execution of community-based, dynamic DP plans have further increased their resilience, thus, result 1.1 has been fulfilled.

Result 1.2: Four VDCs will have DP support institutions able to sustainably support DP activities and raise DP awareness.

Key achievements:

a. Increased DP awareness through collaboration and joint actions
The project has successfully mobilized VDC-level stakeholders to get involved in project activities through information dissemination, technical backstopping, and resource sharing. The project also helped build sustainable collaboration among local institutions to promote DP activities and increase awareness. MC and NRCS entered into formal and informal agreements with schools and other institutions to carry out demonstrations.

VDC stakeholders were included in many of the project activities, increasing their knowledge and skills and also promoting a network to support DPCs and promote continued DRR planning. VDC-level DP actors were involved in community trainings in DRM, risk assessment exercises, KAP surveys, meetings and exchange visits to successful DPCs. As a result, VDCs are considering mainstreaming DRR in their plans and programs.

**b. Built functional coordination and collaboration among DP actors**

Involving district-level authorities in monitoring project communities has made it easier to get the resources needed to execute the mitigation activities. For example, the Secretary of Hasuliya VDC agreed to increase basic services in two safe shelters. The District Soil Conservation Office (DSCO) and Department of Water Induced Disaster Prevention (DWIDP) have allocated some budget to support each DPC’s mitigation plan. The project has also been able to mobilize other organizations, including the World Food Programme, Advent Development Relief Agency, and BASE, to help mitigation efforts like constructing safe evacuation routes and carrying out bio-engineering work through cash and food-for-work schemes.

**c. Formed and activated VDC-level DP Plan**

Each VDC now has a Village Disaster Management Committee (VDMC) coordinated by the VDC secretary and involving DPC representative and VDC-level DP actors. VDC secretaries oversee the formulation and execution of VDC-level DP plans, which are an amalgamation of community-level DP plans and other pertinent DRR issues. This step has made it possible to mobilize VDC-level resources to execute not just VDC-level DP plans but also community-level DP plans. It was found in order to facilitate in executing VDC-level DP Plan, capacity of each VDMC should be strengthened.

Though the formulation of VDC-level DP plans was delayed two months by the unexpected flood of September 2008, the VDMCs have provided the required cash, materials and technical backstopping for the execution of community-level DP plans. For instance, Hasuliya VDC provided NRs. 5,000 to Shivaratnapur DPC to construct a boat and NRs. 25,000 to Mohanpur to expand its bio-engineering work. The VDC has also promised to aid in increasing additional services in and around the emergency shelters in Shivaratnapur and Mohanpur. Gabera VDC was still more generous: it allocated NRs. 100,000 for bio-engineering work in Bisanpur and Manikapur. In an effort to promote co-financing, VDCs have promised to match a total of NRs. 200,000 if DPCs get funds from other organizations. The project, for its part, deposited a total of NRs. 185,802 in DPC emergency and maintenance funds so that they can use some of those funds as their contributions. Though VDC-level DP plan are written, they have not yet been executed though the enthusiasm of the secretaries suggests they definitely will be.

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**Objectively Verifiable Indicators for Result 1.2**

- Cooperation agreements signed by Mercy Corps, NRCS and BASE
- Staff, members and teachers of NRCS, BASE, and schools trained in community training, risk assessment, KAP surveys, DRR mainstreaming, and planning
- 60 (112) VDC-level members of NRCS, VDCs, BASE, and CBOs oriented on DRM through meetings and exchange visits to successful DPCs
- 4 (4) VDCs with simple, feasible NGO-facilitated DP plans that cover all vulnerable communities for the year following the end of this project
- 4 (4) district-level memoranda of understanding signed by district government, VDCs, NRCS, BASE, other NGOs and four VDCs concerning the links between VDC- and district-level response and mitigation plans

*Note: The numbers in parentheses represent achievement against target*
Because collaboration and joint action has increased DP awareness and because organizations function in coordination, it will be easy to formulate, activate and execute VDC-level DP plans; promote sustainable support for DP activities; and raise DP awareness in and around the four project VDCs. Result 1.2 was achieved by increasing DP awareness through collaboration and joint actions, building functional coordination and collaboration among DP actors, and forming and activating VDC-level DP plans.

**Result 2: Six communities will have tried and tested local EWS and communication systems.**

**Key achievements:**

**a. Established local communication systems**

The local EWSs is built upon local monitoring of water levels at multiple points along the river, including upstream from the project communities, and a communications network set up between the monitoring points and Government of Nepal’s DoHM. The project provided nine CDMA telephones with power backup systems and nine rainfall and water-level gauges (four downstream and five upstream) to participating communities. Communities were made aware of communication channels and contact telephone numbers through fliers. A two-way information dissemination system was developed were community members direct their inquiries to the designated community recorder who then talked with the DoHM field office to find out information. At the same time, the recorder was feeding information into the DoHM field office, which in turn informs the community via Dinesh FM radio, Dinesh FM radio uses the local Tharu language to facilitate the understanding of the technical information. Cross-visits to four rainfall and four water-level gauging stations clarified to DPC and EWS sub-committee members how rain and water levels are monitored and how information is communicated. They learned about average and warning levels and how this knowledge can be translated into preparedness in their communities (see Annex 8, table 3). The people think this two-way communication system helped them cope with the devastating flood of September 2008.

Once a warning is communicated to a community, it is further spread using sirens and megaphones. People are familiar with the various sounds of the siren and how to use it to communicate in case of emergency. Sirens are placed strategically to cover the largest area possible. The siren in Shivaratnapur, for example, is at the edge of the village so it will reach the Khalla community too. Locals said that many neighbouring communities also understood the warning when the siren was blown twice in the last flood. The siren is popular because it’s portable, doesn’t require power, and is user-friendly, even for women. Local-level flood observation posts which consisted of wooden posts colour-coded for different danger levels are easy to interpret and therefore effective in warning communities.

<table>
<thead>
<tr>
<th>Objectively Verifiable Indicators for Result 2</th>
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<tbody>
<tr>
<td>• 6 (6) communities with a local EWS and communication system</td>
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<tr>
<td>• 6 (6) communities linked to the Mohana EWS</td>
</tr>
<tr>
<td>• 3 (5) upstream volunteer recorders with rain gauges, water level gauges and access to telephones</td>
</tr>
<tr>
<td>• Percentage of storms and floods covered through weather and storm updates by Radio Godhagodhi FM, linking to upstream volunteer recorders</td>
</tr>
<tr>
<td>• Percentage of occasions that each element of the EWS was successfully used during simulations and real emergencies</td>
</tr>
</tbody>
</table>

*Note: The numbers in parentheses are achievement against target*

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**Box 2: CDMA phones saved our lives**

"We never imagined that even simple equipment and technology would be enough to deal with large-scale disasters, but they are. Sirens for raising the alarm, CDMA phones for communicating with upstream stations, and wooden post to measure flood levels—these basic tools constitute a very effective EWS. The skills we learned through training and study visits strengthened our communication systems. To be honest, CDMA phones saved our lives. Even a small piece of information can save millions of properties. We are trying to increase the salaries of the aghariya so he will be more motivated to monitor the river effectively.”

—Mr Jeet Bahandur Chaudhary, member of Search and Rescue team of Bishanpur
Since it is either the agharia or other person assigned by the DPC monitors who communicates the flood levels to the bhalmasha and DPC coordinator, traditional EWS-based practices within Tharu societies have merely been upgraded, not undermined.

b. Strengthened local EWS both at community and watershed levels

The project mobilised local FM stations to disseminate emergency news, weather-related bulletins, and DRR-related jingles in different languages. A live phone interview with the DoHM field officer from Attaria was broadcast during the September 2008 flood to aware about the states of various rivers.

Project communities are now well informed about the degree of risk (low, medium or high) to various areas in the village and have made risk assessment maps reflecting that risk. They will know how long it will take any given flood to reach their localities from different upstream river gauge stations through the coordinated response of trained local people. In order to reduce the possibility of error and to allow for enough time to prepare, flood warning information is to be circulated to project communities one to one-and-a-half hours earlier than the calculated lead time (see Annex 8, table 4).

A Mohana watershed-level EWS design committee was formed with relevant district stakeholders under the chairpersonship of the District Technical Engineer. Although the committee did debate various issues in different forums in order to strengthen and systematize the system, more supports at both the community and the watershed level is still needed in the immediate future to establish this watershed-level EWS. It is because watershed-level early warning practice is as important as community-level practice; in fact, the latter is dependent on the former.

c. Equipped with the equipments and skills to deal with risks

Each DPC is equipped with high-quality and well-stocked emergency and first aid kits (see Annex 8, table 5). The materials are kept safely and in a fixed place (at the search and rescue coordinator's house) for all to access in case of need. The people understand the purpose of each piece of equipment and are well trained in their operating procedures. The people are convinced of the usefulness of the kits as they have already put them to good use in the rescue efforts during the September 2008 flood. In one striking example is that a person drowning in Shivaratnapur was saved using a life jacket.

The first aid kits are kept in the houses of the village health workers who are most qualified to use them and were used to treat the many injured in the September 2008 flood. People thought the first aid training was the most interesting one. Shivaratnapur, Bisanpur and Manikapur have already arranged that their sub-health post will allocate adequate medicine and supplies for their kits. One woman in Shivaratnapur explained how the kits saved both time and resources: people used to have to travel to Chandanchaudi, the nearest Indian city, even for minor treatment cases, spending at least NRs. 100 for each trip.

The project ran simulation exercises to make sure the knowledge and skills acquired during trainings could be translated into action as well as to increase people’s confidence in their capacity to manage disasters. Another benefit was that search and rescue because more systematic after simulations. Manikapur and Bisanpur DPCs, for example, realized that they needed to revise their evacuation plans to make them more realistic. The project completed all the major training and simulation exercises before the monsoon. Consequently, there was not a single human casualty within the project communities during the September Flood, even though 24 died in neighbouring communities. In fact, the Manikapur search and rescue team was able to assist the victims of a capsized boat in Kateni River and the Mohanpur and Lalitpur teams helped rescue some of the 29 passengers in a boat which overturned in the Khutiya River.

By establishing a local communication system, strengthening local EWS both at the community and watershed level, and equipping locals with the equipment and skills needed to deal with risks, the
The project has indeed enabled people to be prepared in advance of a disaster. Result 2 has clearly been achieved.

**Result 3: VDCs will implement community-led small-scale infrastructure and bio-engineering mitigation projects to mitigate hazards.**

**Key achievements:**

**a. Strengthened the capacities of DPCs for making mitigation plan**

The project invested time, energy and resources in building the capacity of locals and DPCs to design and implement community mitigation plans, and indeed, all six did have such plans in place and were actively pursuing them. The project used orientations and on-the-job training in comprehensive bio-engineering activities for conserving riverbanks so that locals would have the simple guidelines they needed to be able to design and implement new small-scale infrastructure activities on their own by mobilizing local resources. Officials from the DSCO, the DWIDP, and various VDCs served as resource persons.

**b. Improved basic services by constructing small-scale infrastructure**

The project has supported the construction of small-scale infrastructures which provide basic services (see Annex 8, Table 7). A total of five raised hand pumps with arsenic testing were installed. During floods, raised pumps alone can provide safe drinking water and reduce the risk of water-borne disease as ground level pumps become submerged and contaminated water flows down wells, contaminating the water source. People prefer them during dry winters because the water comes from deep underground (130-180 m) and is therefore clean. In fact, more and more people are relying on raised pumps because their awareness about the importance of clean water has increased. The sites selected for hand pump installation are appropriate and fulfil SPHERE standards.

Shivaratnapur and Mohanpur have built shelters well-designed to meeting their need for a secure place to live without fear during flooding. Each is linked to a safe evacuation route, is equipped with a kitchen, and has direct access to a toilet and water source at the same height as the shelter itself. The shelters each contain a small DPC office, both making them useful during normal times and make resources available in times of flooding. The shelters keep in mind the needs of vulnerable people too: there is ramp access for the disabled, a railing around the building so children and elderly don’t fall off the veranda, and hand rails in the toilet to facilitate the elderly and disabled. Rainwater harvesting also is used to fill a large tank for non-drinking purposes. Both shelters are multipurpose: because they were constructed within the premises of schools they can be used as classrooms and because they are large, they are used for social gatherings like those that occur during a marriage or funeral.

Each community used its community-managed boat to good effect to save lives and livelihoods during the September 2008 flood. Children, elderly people, pregnant and lactating mothers and important belongings were rescued first. The size and design of each boat was suited to both the size of the communities and the nature of river in their locality. The locals of Shivaratnapur believe that they would have lost 10-12 people of the Khalla community if the project had not provided

**Objectively Verifiable Indicators for Result 3**

- 6 (6) community mitigation plans, with project designs and costing
- 6 (6) DPCs trained and guided to design and implement new small scale infrastructure projects without project support
- 6 (6) communities that have established a maintenance and a DP savings fund
- 6 (27) small scale-infrastructure and bio-engineering mitigation projects implemented
- 6 (6) communities that have mobilized on average more than 50 percent of mitigation costs from their own or other sources (e.g. DDC, YIPR, DWIDP)

*Note: The numbers in parentheses are achievement against target*
boats. Previously, villagers had been improvising with doond⁶, which had a high risk of their overturning. In fact, Bisanpur rescuers saved some residents of Chotki Palia after their trough-boat overturned, Lalitpur and Bisanpur saved some police officers, and Shivaratnapur and Jokahiyapur used inner tubes and wooden planks to make temporary boats. Convinced of the benefits of boats, DPCs are now considering making more boats of different sizes.

c. Established functional emergency and maintenance funds

Each DPC has an emergency and maintenance fund to initiate and run DP activities. The fund meets both emergency and regular operation and maintenance needs and locals perceive it as an effective means in reducing disaster risks. Thus far, the six communities have saved a total of NRs. 185,802 (see annex 8, table 6) and the project has contributed NRs 35,209 to each. As the funds grew, communities have been more generous in their assistance to others. For instance, Manikapur and Shivaratnapur communities gave 75kg and 72 kg of wheat, respectively, to 12 families in Basanta whose stores of grain were destroyed by wild elephants. Emergency and maintenance funds were also used to improve physical facilities. Mohanpur invested some of their fund in operating a boat service, while Bisanpur spent money on the bamboo it needed to maintain some mitigation work. Jokahiyapur installed a hand pump in Rampur, the village to which some households were displaced. In addition to contributing monthly to their funds, the communities also raised grain through “a-handful-of-rice campaigns”. In Shivaratnapur, each household gave half a kilogram for every kattha⁷ of land it owned. The communities also stared to raise funds by collecting pankar⁸.

d. Reclaimed the land along riverbanks through bio-engineering activities

Bio-engineering is a low-cost, easily-maintained and replicable mitigation technique that requires only bamboo, plants saplings, sand, jute and sang bags, all things locals have ready access to. The fact that using it pays tribute to ‘the people’s science’⁹ made it all the more popular. The project helped conserve a total of 1,995 meters of riverbank (see Annex 8, table 8). The protected sections were chosen riverbank stabilization after conducting a river study using GPS readings and satellite images available on Google Earth. Throughout the rainy season and during the September 2008 flood, bio-engineering techniques stabilized slopes and reduced erosion. The six community-managed nurseries successfully produce fast-growing, deep-rooted species for plantation (see Annex 8, table 8), but in some cases the ownership of nursery land has yet to be settled. It was found that activities like establishing nurseries and carrying out bio-engineering work should be allied with the season for its effectiveness.

There is much evidence that bio-engineering has been replicated at the community and institutional levels. Manau, which lies outside the project communities, established a nursery and began plantation along the Kanara River after some villagers visited Shivaratnapur. Another nursery was established in southern Lalitpur to scale up efforts. Mohanpur and Basanta replicated the toe protection and bamboo spur work they observed in Bisanpur and Jokahiyapur. Badki Paliya also learned from Bisanpur, and Shivilal, Bhitariya, Nimuabojhi, and Khuriyakhera got advice from Lalitpur and Mohanpur about how to implement bio-engineering. At the institutional level, this technique is being replicated by BASE, MC’s Cash for Work program, the DSCO and the DWIDP. The DSCO and the DWIDP provided

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Box 3: Bio-engineering work save our productive land

"The most memorable achievement of the project is using local resource-based bio-engineering to conserve riverbanks and save productive land. If our land is safe, we can grow grain. With bio-engineering, we save 150 meters from river cutting and saved Mohanpur from becoming a swimming pool. With the project’s help we have made a community-level DP plan which includes small-scale mitigation activities. We are confident that in the future will carry out more protection work to save more productive land.”

--Mr Sital Prasad Chaudhary, DPC Secretary, Mohanpur

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6 Wooden troughs to feed livestock.
7 Unit of land. 1 kattha = 0.0335 ha.
8 A service charge placed on absentee farmers.
9 The people have used less sophisticated bio-engineering techniques for decades
funds to project communities to expand their bio-engineering sites, and the DSCO helped provide plant saplings. The DWIDP has started to replicate the same technology in Krishnanager, where 100 meters of riverbank protection has been started recently. Using diesel engines to drive bamboo poles into the riverbed, a practice which strengthens protection work, is growing more popular in both the project and surrounding communities.

Hasuliya VDC gave NRs 25,000 to Shivaratnapur to carry out bio-engineering work. Shivaratnapur got another NRs. 15,000 from the DSCO to purchase bamboo for protecting 150 meters of riverbank. Bisanpur also petitioned the DSCO and was given funds to buy bamboo to protect 100 meters. It is clear that DPCs have started to secure some of the external funds they need to support the replication of project initiatives. So far, NRs 851,500 has been mobilized (this includes the committed amount too) (see Annex 8, table 9).

Bisanpur has started to construct a *chalka bandh* (earthen dike), which it will now need to plant with grass on both slopes to control erosion.

People feel that the bio-engineering work has prevented the loss of cultivable lands, housing and small infrastructures. Lalitpur farmers estimated that about 15 bigha\(^{10}\) of the cultivable land of nine families was saved by 300 metres of bio-engineering work. In Mohanpur, too, 300 metres of bio-engineering work prevented about 20 bighas of cultivable land from being washed away.

**Box 4: Bio-engineering is a huge success**

"The project's approach to bio-engineering work is commendable because it is replicable widely. I don't think that using sophisticated, high-cost technology in a remote village is sustainable in the long run. Though we do also promote gabion spur and stone riverbank protection, for the first time, we are helping the people of Krishnager near Lalitpur to replicate the bio-engineering work we ourselves did. We helped for two reasons: first, we believe in the effectiveness of bio-engineering work and, second, we felt we should honour the community's request. Interestingly, people seem to prefer bio-engineering to gabion spur and stone-based techniques. I think bio-engineering is a huge success."

*Mr Tarakant Chaudhary, DWIDP Engineer, Kailali*

Strengthening the capacities of DPCs, establishing functioning emergency and maintenance funds, improving basic services through the construction of small-scale infrastructure, and implementing bio-engineering activities have all helped fulfil Result 3.

\(^{10}\) 1 bigha=0.67ha
Result 4: Eight YRCs will be set-up in local schools to pass on knowledge about DP to other students.

Key achievements:

a. Enhanced the capacity of teachers and YRCs to carry out DP and DRR activities

The project worked with a total of 5,785 students in recognition of the fact that students serve as “agents of change” among other students as well as among family and community members. The YRC members are the key actors in each school. The reach of the project’s school-based activities is commendable though they started late in the project period because of the September 2008 flood and school closures. A number of activities had been planned in the last weeks of school, but the schools closed three to four weeks early due to the early onset of the rainy season. Another unprecedented closure of two weeks happened because of problems getting text-book to the schools. The bandhs (strikes of political parties) called in February and March 2009, which resulted in the postponement of end-of-year exams, also had a negative impact on the implementation of school interventions.

The project designed many awareness-raising activities, including orientations, trainings, tours and simulations, to build the capacity of teachers and YRC members. A total of 14,250 students and teachers (male-7,542 and female-6708) were benefited (see Annex 8, tables 10a, 10b, 11a and 11b). The conservation education training targeted at students in grades 5-10 helped increase awareness about the importance of soil conservation, plantation and riverbank protection as measures for controlling erosion. Inspired by the training, both teachers and YRCs were actively involved in establishing nurseries, filling polythene bags and planting tree saplings within school premises and along riverbanks.

The school-level program focused on training teachers and YRCs to serve as local resource persons who can disseminate key messages about DRR not just within but outside of schools. Teachers who participated in the conservation and DRM trainings were motivated to introduce the concept of the disaster management cycle to the YRCs and students.

Through a series of awareness-raising efforts, students were familiarized with the nature and types of disasters, their causes (primary and secondary) and effects, and possible ways of managing them at the local level. Additional sessions were scheduled after gaps in the existing curriculum were identified. With what they learned from the project communities, Khonpur of Hasuliya VDC, Bhuyaphata of Ratapur VDC, and Baijapur of Pabera VDC mobilized groups of young people to assist in the search and rescue during the 2008 monsoon. The trainings were indeed instrumental in establishing a student-guardian link with respect to DRR and in enabling student trainees to fill in the knowledge and skill gaps of other students and of their family members, particularly their mothers.

Information education and communication (IEC) materials were developed to increase awareness about DP before, during and after floods among community members and school students. Each

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Box 5: We learned how to be safer both in school and at home

“For me, the most impressive training was first aid as the skills and knowledge we learned are of direct use at home and at school. The YRCs set up in our school have carried out visible changes, including renovating toilets, improving sanitation around the school and implementing plantation work to promote greenery. Students compete to be the YRC member who contributes more to DP. For the first time, we can identify which areas of our village are most at risk. We learned a lot from the trainings and orientations on how to be safer both in school and at home.”

-Anjil Chaudhary, grade X, Dipendra Secondary School, Hasuliya
IEC piece was gender-and culture-sensitive and field tested to ensure that no points were misunderstood and the misleading text and illustrations were corrected. Because the materials were designed following IEC orientation trainings for community leaders, project staff, and district stakeholders, the materials were by and large readily understandable. They contained messages about the types of hazards, causes and effects of disasters, people's vulnerability, early warning signals, risk reduction, and mitigation initiatives. The project’s approach to building awareness was deemed innovative and interesting. Volunteers disseminated each message using door-to-door campaigns which employed an “adult learning approach,” giving people room to express their understanding of and feelings about key themes and messages and to fill in any gaps if necessary. During the evaluation consultation, people clearly said that the project’s IEC materials had helped them to develop knowledge of and experience in hazards and disasters and their relationship as well as actions required at the local level. Door-to-door campaigns were also conducted in some of the neighbouring villages of project communities like Bhuiyaphata, Hasanpur, Khonpur, Lalpur, Bhitariya, K-gaon, Chotki and Badki Paliya, I-gaun, J-gaun, Krishnanager, and Tigri.

b. Formed school-level DP plans, which are currently being implemented

School-level simulations saw the active participation of YRC members. These simulations, as well as a review of the formal curriculum, created a suitable environment for writing school-level DP plans. The changes witnessed immediately after DP plans were formulated included the construction of raised hand pumps at schools, the renovation and improvement of toilets, the organization of sanitation campaigns around the school in order to reduce the risk of snake bites, and plantation within school compounds. YRCs are actively implementing school-level DP plans.

As the enhanced capacity of teachers and YRCs to carry out DP and DRR, the increase in awareness accomplished through co-curricular activities and the formation of school-level DP plans all helped to increase knowledge about DP, result 4 has been achieved.

Result 5: Project results and lessons will contribute to Hyogo Framework for Action and be share at the district, national and global levels

Key achievements:

a. Developed and shared the key lessons and good practices for wider dissemination

The project developed good practices documents, a video on EWS, and a HFA case study based on its learning. The HFA case study is being distributed to INGOs in Nepal, and will be uploaded onto the International Strategy for Disaster Reduction and MC websites. Hard copies of project reports will be shared with a wide international audience and DIPECHO through MC headquarters. These materials were instrumental to share the major learning and good practices among the relevant stakeholders and DP actors.

<table>
<thead>
<tr>
<th>Objectively Verifiable Indicators for Result 5</th>
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<tbody>
<tr>
<td>• 1 (1) lessons learned and future action document produced and distributed to 200 DP actors</td>
</tr>
<tr>
<td>• 23 (40) meetings with Kailali DP-Net, DP-Net Nepal, DIPECHO partners, national DRR actors (DIPECHO NCM), international DIPECHO partners, and ECB partners in which the project’s lessons are shared</td>
</tr>
<tr>
<td>• 1 (1) case study developed for UNISDR showing the project’s contribution towards the HFA</td>
</tr>
<tr>
<td>• 100 (?????) VCD/DVD copies of four different films (DPC preparedness, school simulation, mitigation measures, EWS/simulation) distributed/shown to vulnerable communities and CBOs in four VDCs, Kailali DP-Net members, BASE Area Adult Committees and BASE Area Youth Committees</td>
</tr>
</tbody>
</table>

Note: The numbers in parentheses are achievement against target

A national-level workshop was organized on EWS in collaboration with Practical Action, one of the DIPECHO partners. By participating in national, regional and local trainings, workshops and conferences designed to share experiences in local disaster management practices, the project has helped to strengthen policy advocacy and to disseminate the lessons it has learned. Its learning has
also been spread through Kailali DP-Net, DP Net Nepal, DIPECHO partners, national DRR actors like DIPECHO NCM and international DIPECHO partners.

b. Established functional coordination and linkages among DP actors
Search and rescue trainings were successfully held in collaboration with the Nepal Army. Because key district authorities made joint visits to the project communities they were able to receive suggestions and feedback on ongoing project activities, especially bio-engineering efforts.

c. Initiated collaborative actions to share DP and DRR
To promote idea- and experience-sharing as well as to reduce costs, the project implemented some district-level events jointly with Care Nepal and government departments. Earthquake Safety Day, for example, was celebrated with the Department of Urban Development and Building Construction. To make people aware of the basic dos and don’ts during an earthquake, a “duck, cover and hold” exercise was held and pamphlets and other publications related to earthquake safety were distributed widely. Key learning gained from community- and watershed-level EWS was shared at a national workshop, and the project, in conjunction with Care Nepal, provided its IEC materials on DRR to interested individuals and institutions at the Far West Fair.

Practical Action, Care Nepal and MC visited each others’ project areas to learn from each others’ projects. Good coordination was maintained with the Office of Coordination for Humanitarian Assistance, which claimed that the project’s learning about community-based preparedness activities and EWS was worth spreading widely. These visits contributed to the fulfilment of Result 5.

Because of the fulfilment project’s five results, it can be said that the project also met its specific objective, “to ensure that vulnerable communities and institutions in Kailali district are better prepared to respond to natural disasters, are linked into district and national response systems, and contribute to shared learning on risk reduction practices” and principle objective, “to reduce disaster risks in Nepal through increased awareness and capacity of vulnerable communities to prepare for and respond to frequent natural disasters.”

3.2 Limitations
Several challenges and hindrances presented themselves to the project. First, some trainings were delayed because there were no local-level resource persons with the necessary skills. Second, because there is no elected government at the local level, establishing functional coordination and linkage was difficult. It was also very hard to build rapport with the leaders of various political parties.

A period of more than two-and-a-half months was lost to the strikes and bandhas called by various political parties, which generated security risks to the project team if they continued to conduct project activities, The bandha limited vehicular movement and the importation of goods, causing price hikes, the unavailability of constructions materials and shortages of petrol and diesel. The difference between the prices at the time of design and the time of implementation was considerable. Not having sufficient petrol and diesel made it difficult for the project to carry out follow-up and monitoring activities.

The unexpected flood of September 2008 also set back activities; in fact, a two-month hiatus was called until the situation returned to normal. Because of the flood and the early onset of the rainy season, which resulted in the closing of schools three to four weeks prematurely, as well as an extraordinary two-week closure because there were no textbooks, some of the planned student activities could not be carried out. The bandhas called in February and March 2009, which resulted in the postponement of end-of-year exams, also had a negative impact on the implementation of school interventions.
3.3 Project Efficiency and Effectiveness

3.3.1 Project Efficiency
a. Mobilized the marginalized and deprived sections of society
The project successfully involved the deprived and marginalized sections of society, including women, Dalits, janajati and persons with disabilities, in designing, planning, implementing and following up on project activities. Such a high degree of involvement has ensured efficient and dynamic action in preparing for and responding to disaster risks.

b. Adopted low-cost and cost-effective measures
To reduce risks, the project used low-cost, local resource-driven, indigenous knowledge and skill-based activities, including bio-engineering, nursery establishment, and boat construction. Celebrations of international days, start-up and completion workshops and various trainings were organized with Care Nepal to reduce costs.

c. Promoted a culture of resource sharing
Although project resources were limited, bio-engineering work was carried out on a wide scale because VDCs, the DSCO and the DWIDP contributed cash, materials and technical advice. In some activities, like the construction of safe shelters and bio-engineering, community contributions exceeded 90%. Good mobilization of and cooperation among CBOs, NGOs, and government organizations made it possible to establish a culture of resource sharing. The culture of resource sharing was also found at project level. For instance, the salaries of both the finance and the logistic officers were borne by a cost-sharing mechanism (part came from DIPECHO and part from Mercy Corps other projects).

d. Implemented an effective monitoring system to ensure the quality of work
The project established effective monitoring systems at four levels—the DPC, the project, the project steering committee and the district stakeholder level—to ensure that all plans and programmes would be executed with quality work. However, it was found that latter three levels of monitoring systems are good enough; there are many rooms for improving DPC-led monitoring systems to make local level stakeholders more responsive in project endeavours.

e. Managed additional resources to maximize outputs
Through Mercy Corp’s own initiative as well as to deal with the demands created by the flood of September 2009, additional resources for bio-engineering and the construction of safe evaluation routes came from cash-for-work programs and emergency and recovery support, like grains, were provided to flood-affected communities. These initiatives helped safeguard productive land, evacuate people immediately and increase food supplies for the poor.

3.3.2 Project Effectiveness
a. Strictly observed the pre-monsoon timeframe
The project completed the majority of its activities within the set timeframe. Trainings, simulation on EWS, search and rescue simulations, safe evacuation, street drama, equipment provisioning and bio-engineering works were completed before the monsoon. This enabled the communities to respond to the flood of September 2008 effectively with their newly acquired knowledge and skills, local-level stakeholders.

b. Established youths as frontline actors
The project capitalized on the strengths of youths in each community and in all project activities. Youths groups and YRCs were formed in neighbouring communities and in schools to carry out project activities. The project’s mobilization of youths impressed project communities.

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11. This initiative was supported by World Food Program.
12. Non-food relief items and seed were provided with the support of OdysseyRe Foundation.
c. Ensured NRCS played an effective role
In all project communities, NRCS field staff had devoted a lot of time toward building rapport with locals and it was because of their close relationship with communities and schools that it was easy to run the project.

d. Prioritized social and technical values
Each community chose its river protection work so that it would not harm other communities. For instance, Manikapur dropped its idea of constructing a gabion spur when it discovered the spur would increase river cutting and land loss across the river in Bandergaudi village. SPHERE standards were used when installing raised hand pumps and carrying out sanitation activities to ensure that the quality of the technology would be the best possible.

e. Used local resources
The project gave high priority to using locally available resources, including saplings from local nurseries, locally-grown bamboo for bioengineering and local wood for boat construction.

f. Incorporated an appropriate knowledge-sharing mechanism
The project adopted a good mechanism for knowledge sharing: it had participants in DPC meetings select who would participate in trainings and made it mandatory for trainees to disseminate the knowledge and skills they learned.

g. Maintained program and financial transparency
The project shared all its plans and programs in their initial phases to know publicly. The procurement and accounting sub-committee of each DPC helped keep all financial transactions orderly and aboveboard. Public auditing was carried out at the community level at the time of project completion. Key decisions and transactions were displayed on community notice boards as well as on the walls of DPC offices to ensure that locals had adequate access to all program and financial information. Nevertheless, Public auditing package need to incorporate both programmatic as well as financial aspects and need to carry out at middle the beginning as well as at the time of completion.

3.4 Empowerment and Capacity Building

a. Ensured meaningful representation and functional participation
The project ensured that different segments of the population were meaningfully represented in DPCs, sub-committees, YRCs, street drama teams, and at trainings. Gender and social inclusion was practiced by every DPC and sub-committee. Such meaningful representation encouraged functional participation in all project activities.

b. Implemented capacity-building for confidence and empowerment
Project stakeholders were involved in a series of high-quality DP- and DRR-related trainings, orientations, study visits, and inter-community visits, all of which enhanced their knowledge and empowered them. Such capacity-building initiatives boosted participants’ confidence in expressing their concerns to relevant stakeholders.

c. Promoted participatory decision-making for action
The project established a culture of discussing, interacting, and negotiating before making and implementing decisions. Such participatory decision-making has made it easier to link DPCs with district-level stakeholders so they can generate resources and ensured that the opinions of bhalmashas were honoured. To ensure a healthy power balance, each bhalmasha was made an ex-officio member of the DPC and the coordinators of the community mobilization sub-committee. Participatory decision-making process and honouring the traditional leaders helped introduce the issue of equity in resource collection. In Shivaratnapur, for example “a-handful-of-rice campaigns” are no longer collected on the basis of households; instead, grain is collected on the basis of landholdings.
3.5 Effectiveness of Sharing Training Knowledge among Children

The project helped increase the awareness of children through training, orientation, simulation and co-curricular activities. During the evaluation consultation, children said that the trainings in leadership development, community-based DRM, first aid, soil conservation, search and rescue and child to child trainings had helped them increase their knowledge. The intra- and inter-school simulations were also effective in increasing knowledge and information about DP and DRR, and school-level DP awareness campaigns sensitized children to the causes, effects and consequences of disasters. Since awareness sessions used a variety of techniques, including art, essays, speeches, games, charts, and pictures, children enjoyed themselves as they learned about DP and DRR at the individual, family and community level. Educational materials such as 6,000 colouring books, 6,000 DRR booklets, posters, and flip charts with large letters also promoted awareness and knowledge. The interviewed school students claimed that the art competitions held independently in eight schools, the two inter-school simulations and art competitions, and the secondary school essay competition on earthquake safety were all very interesting. The participatory process employed to formulate the DP plans of each school expanded their knowledge about DP and DRR.

3.6 Project Design and Methods, Management and Implementation Processes

3.6.1 Design and Methods

The project’s methods included forming gender- and socially-inclusive community-based institutions, building their capacities and mobilizing them to reduce disaster risks at the micro level as well as building good coordination and linkages with local-, district- and national-level stakeholders at the macro level. Because of good project design, it was possible to coordinate with many agencies like the DoHM, the DSCO, the DWIDP, and VDCs in supporting mitigation efforts, DP, and EWS. The relevance of each activity was found appropriate to achieve the project's results. However, the number of activities and their targets are comparatively high for the limited time frame and resources of the project.

The project methods also resulted in the successful implementation of structural and non-structural mitigation activities through community participation and resource sharing with other institutions. Interventions at the community level were designed to have a spin-off effect and, indeed, project activities like bio-engineering and EWS were replicated elsewhere.

3.6.2 Management and implementation processes

The current modality of project management at the centre, district and community levels is sound and effective. At the centre, the Program Manager is responsible for the coordination, linkage and sharing of good practices and learning as well as for overall project execution at the programmatic and policy levels. The Assistant Project Manager, Field Technical Supervisor and Finance and Logistic Officers in Dhangadhi are responsible for planning, monitoring and supervising ongoing activities. The Assistant Project Manager reports regularly to the Program Manager. The five staff members currently employed seems to be adequate to meet the demands of maintaining partnerships with local-level stakeholders and executing project activities. Planning, monitoring and evaluation are appropriate and adequate. The project’s internal monitoring mechanism effectively keeps an eye on objectively verifiable indicators for each result. Because implementation is so effective many good practices have been identified even within the short tenure of the project. At the community level, NRCS staff members are fully involved in community mobilization and wholeheartedly support program execution. Overall management was highly participatory, giving space for each stakeholder to build on his existing strengths and to learn new ideas.

Project management is well balanced and devotes equal attention to promoting good relations both within offices and with stakeholders. During field visits, project staff members are professional and respectful in their interactions with beneficiary groups; there is no question that they are committed.
The management style within the project, too, is democratic, and there is a sense of team spirit and belonging. The project upholds MC’s values of accountability and transparency, which are laid out in MC’s core values. In sum, the project’s design, methods, implementation and management procedures are adequate for meeting the principle and the specified objectives of the project.

3.7 Project Relevance

a. Selected appropriate target groups and project communities
The target groups, including youth, women, migrants, the landless and tenants are indeed those who are most vulnerable by economic pressures and the decade-long armed conflict. The six communities selected are those who live along the most dangerous stretches of the Mohana River. In addition, none had been previously been exposed to disaster awareness or preparedness activities. The project reached out to those sections of the society which have received few benefits from development initiatives or have even been excluded altogether. The group of six communities was a good size to serve as a “social laboratory” for other DP actors to observe. Interestingly, the level of exposure of the project communities with VDCs and district level stakeholders was found more in Hasuliya and Pabera than Phulbari and Ratanpur VDCs. It is partly because of two communities were selected under each of the Hasuliya and Pabera VDCs which has supported them for the joint advocacy and lobbying for external resource mobilization.

b. Addressed the key issues and concerns of disaster-affected communities
The project addressed the issues and concerns of flood-affected communities. They include gender inequity and women's empowerment but focused mainly on floods. Particular concerns addressed by mobilizing DPCs and local resources included strengthening community- as well as watershed-level EWS, river bank protection through comprehensive bio-engineering activities, improvement of essential services like raised hand pumps. Forming new institutions to oversee DRR was seen as more effective than expanding the roles of the already overworked bhalmas and aghariyas.

c. Included policy provisions
The project had relevance in both national and international contexts. At the national level, the project was set within the government’s Three-Year Interim Plan. At the international level, the project contributed to Nepal’s meeting of its Millennium Development Goals and the HFA.

d. Correlated five program components of MC-N’s approach on DRR and the project
MC-N’s approach to DRR incorporates five components: awareness raising and local capacity building, small-scale mitigation works, peer education in schools, EWS, and facilitation of coordination. These correspond exactly to the DIPECHO mandate for this project.

3.8 Sustainability

a. Strengthened local institutions in project communities
Capacity-building activities conducted throughout the duration of the project strengthened and institutionalized local organizations, enabling them to link up with VDC- and district-level DP actors. Since the project set clear expectations of involvement and emphasized self-reliance, the formation of local institutions, the mobilization of local resources, and joint social action, it is likely that, to varying degrees, the activities started will continue after the project is phased out. Project interventions enhanced organizational and leadership capacity among both NRCS staff and DPC members. It is likely that the skills acquired will continue to be used, especially as NRCS will continue their operations in and around the project communities. Both the capacity-building and the linking of local institutions with other DP actors are strategic parts of the project’s exit strategy. Still, however, additional time is required so that the project’s good initiatives can mature and local institutions like DPCs and VDMCs can become properly institutionalized.
b. Designed simple but workable EWS
   The EWS built were based on the existing cultural milieu and value system. The traditional posts of aghariya and chaukidar were exploited because of their skills in monitoring and disseminating information through the voices of the much-respected bhalmasha and DPC coordinator. Tri-colored wooden posts (green-preparedness, yellow-get ready and red-evacuate) made warnings clear even to the illiterate. People are fully equipped and became practiced in the proper usage of their equipment through training and simulation. People are also familiar with rainfall intensity warnings: 110-150 mm per hour is the first warning; 151-200 mm, the second; and above 200 mm, the third. Local FM radios broadcast easy-to-understand weather reports in Tharu and Nepali dialect. The Mohana watershed EWS Design Committee has committed to extend its help for 2009 monsoon and the beyond. It has given time, energy and other resources to strengthen watershed-level EWS and to link efforts upstream with those downstream.

c. Carried out small-scale mitigation activities using local resources and low-cost technology
   The project planned for the sustainability of small-scale mitigation work in three ways. First, it developed a comprehensive, low-cost, local resource-based bio-engineering approach based on indigenous practices and requiring minimal operation and maintenance. Second, it linked DPCs with relevant district-level DP actors involved in resource management; and, third, it promoted mitigation activities which 'do not harm' the local environment. Because rules and regulations are translated into action, provisions for operation and maintenance have been incorporated (Bisanpur said it would collect NRs. 10 per household for this purpose), emergency and maintenance funds are collected, and small-scale infrastructures like safe shelters, raised hand pumps, and boats are fully owned by the community, it is likely that project initiatives will be sustained.

d. Facilitated active and self-motivated youth groups and YRCs
   On special occasions, trained youth group and YRCs have started to write and perform dramas on issues along with flood preparedness. Neighbouring communities have also requested them to hold performances. YRCs actively mobilize students to generate awareness about DP and DRR. Their efforts and other school-based activities are likely to continue both because YRC members compete to make the most difference at their schools and because teachers are dedicated to sharing information with their students.

e. Functional coordination and linkages among the DP actors
   Each DPC has developed its capacity to petition for VDC and district resources to use to continue project initiatives. The collaboration of DPC with NRCS will also promote follow-up as will the good working relationship between DPCs and district government agencies ensured through project steering committees. In fact, some project VDCs have already supported project communities by co-financing bio-engineering work and construction of boats and others are in the process of doing so. Involving district-level government officials as resource persons in some of the trainings also helped promote linkages for resource sharing.

3.9 Replicability

Though the project didn’t run for long, some of its good practices have already been replicated within and outside of the project VDCs. Shivantapur’s neighbours, including Khonpur of Hasuliya VDC, have set up their own funds to support the running and maintenance of raised hand pumps and to implement other preparedness and mitigation works. Mohanpur and Basanta replicated the toe protection and bamboo spur activities that Bisanpur and Jokahiyapur had implemented. Manau, which lies outside the project area, established a nursery and began plantation along the Kanara River after some residents visited Shivratnapur. A second nursery was established in the south of Lalitpur to scale up efforts. Badki Paliya community also learned from Bisanpur, and Shivtal, Bhitariya, Nimuabojhi, and Khuriyakhera got advice from Lalitpur and Mohanpur about how to implement bio-engineering.
At the institutional level, the bio-engineering technique is being replicated by BASE, MC’s Cash for Work program, the DSCO and the DWIDP. The DSCO and the DWIDP provided funds to project communities to expand their bio-engineering sites, and the DSCO helped provide plant saplings. The DWIDP has recently started to replicate the same technology in Krishnanager along 100 meters of riverbank. Interventions at the community level were designed to have a spin-off effect and, indeed, project activities like bio-engineering and EWS were replicated elsewhere.

The establishment of YRCs at schools, the construction of boats, the construction of raised evacuation roads and preformed street drama events are other project initiatives that were replicated within and outside the project communities. In addition, the drama team organized events in the neighbouring villages, including Bhuiyaphata, Hasanpur, Khonpur, Lalpur, Bhitariya, K-gaon, Chotki and Badki Paliya, I-gaon, J-gaon, Krishnanager, and Tigri.

### 3.10 Areas for improvement

Though the project did yield very good results within a short period of time, it should improve the following areas to see more benefits in the future.

- The project’s good practices should be disseminated widely among local- and district-level DP actors after conducting community-level review and reflection to optimize learning from each practice. Such initiatives will also help to promote local government-level policy dialogue and discourse required for the successful up scaling of the good initiatives. In fact, periodic review and reflection could act as a knowledge-sharing platform on DRR.
- Radio programs are very effective in disseminating messages quickly, to many, and in an interesting fashion. Radio programs broadcasted through Dinesh FM were very effective during the monsoon when the risk of flooding was great, but listener surveys should be conducted in order to ascertain the most appropriate content and timing for different age groups.
- The sustainability of good project initiatives depends upon whether or not the district government exhibits a sense of ownership over them. It is good to see that government agencies and local authorities have started to support DP initiatives by sharing resources and technical expertise, but advocacy and lobbying for external resources must continue.
- Because its outreach is so great, conducting DRR initiatives through schools is an effective means to inform and sensitize children, who serve as the “agents of change” of a community. Indeed, schools could serve as the entry point for getting involved with a community.
- There is a strong link between community- and VDC-level DP plans, but for them to be executed and supported in the long term, these plans need to be linked with district-level DP plans. There is a need to advocate for the formulation of a district-level DP plan which integrates local plans.

### 3.11 Impact

Because the project was short and this evaluation was conducted immediately following its completion, all of its likely impacts are yet to seen; however, some which are visible are discussed below.

**a. Increased self-confidence through capacity-building initiatives**

People were more vocal and confident; they had developed a "we-can-do-it” feeling as a result of the many capacity-building initiatives. They have identified vulnerable and high-risk areas and also recognized what strategies and actions are needed to minimize risks. Changes were found in beliefs (initially people saw disaster as the will of god and not something whose effects could be minimized) and the degree of understanding about the causes of disaster. Having seen what locals can accomplish in DPCs, their sub-committees and VDMCs, the tendency of nominating the members of these committees to leading roles in other CBOs like SMCs, CFUGs, and WUGs has increased.
b. Changed individual-, family- and community-level DP practices
The many changes in DP practices and behaviours observed can be attributed to the project’s capacity-building activities and other interventions. At the individual level, people are very familiar with the dos and don’ts of action before, during and after disasters. Many said that they had already used the skills, knowledge and information they acquired and that they plan to do so again in the future, with some modifications, if needed. At the family level, more households are building two-storey houses so they can store grain and live upstairs during floods, keeping important documents in safer places, increasing the height of the foundation level of houses, and moving houses to safer places. At the community level, people have begun to make earthen dikes around villages to hold back flood waters, to construct raised evaluation routes and to identify safe places to live during emergencies. The project changed the lives of the people living not only in its own communities but also, through replication, of those living in other, neighbouring communities.

c. Increased social solidarity and neighbourliness
The project work has increased people’s belief in the power of teamwork. The culture of helping each other during emergencies increased, thereby directly strengthening social solidarity and neighbourliness. Shivaratnapur and Mankapur communities, for example, provided to material supports to Basanta when wild elephants totally destroyed its stored grain and damaged houses; and Bisanpur DPC had agreed to contribute two quintals of wheat to Koshi flood victims before they themselves fall victim to the September 2008 flood. Villagers also report seeing an increase in social justice irrespective of caste, class, gender, and other differences.

d. Encouraged the replication of good initiatives
Some of the project’s good practices have been replicated within and outside of the project VDCs. Shivantnapur’s neighbours, including like Khonpur of Hasuliya VDC has emulated the emergency and management fund to support the operation and maintenance of raised hand pumps and to implement other preparedness and mitigation works. Other activities that have been scaled up include the execution of bio-engineering work using planting material from community nurseries, the establishment of YRCs at schools, the construction of boats, and the construction of raised evacuation roads.

e. Initiated alternative income-generating activities
Once land along riverbanks was reclaimed through bio-engineering, people started to use the land to farm off-seasonal vegetables, watermelon, nuts, turmeric, taro, ginger and other crops which can be sold for cash. Though these initiatives in income diversification are small, they have changed people's lives and livelihoods in the long run.

4. RECOMMENDATIONS
The project has brought about some significant improvements in the quality of life of its beneficiaries, reducing their vulnerability by increasing their capacity to prepare for and respond to disaster risks. Below are some recommendations for carrying out similar types of interventions in the future.

i. DPCs are the key institutions within the community to coordinate and linkage with local level stakeholders. DPC-led monitoring systems should be strengthened to draw the enough attention of local stakeholders towards DP initiatives. A culture of inter-community self-evaluation visits followed by participatory reviews and reflections should be established as a process to learn and make immediate feedback to each other.

ii. The project has facilitated to form VDMC in each VDC under the policy provision of National Disaster Management Strategy of Nepal. It is itself an admiring effort. This is the lead committee to oversee the disaster related activities within the VDC. But these committees are not properly institutionalized. Therefore, the capacity of each VDMC should be strengthened to facilitate in executing VDC-level DP plan. Equally, project should facilitate to form district-level disaster networks to give more voice to disaster-affected people.
iii. There is a strong link between community- and VDC-level DP plans, but for them to be executed and supported in the long term, these plans need to be linked with district-level DP plans. Therefore, the project should advocate for the formulation of a district-level DP plan for their proper linkages.

iv. Watershed-level early warning practice is as important as community-level practice; in fact, the latter is dependent on the former. In order to scale up good initiatives at the watershed-level early warning practices, the capacity of the EWS Design Committee should be strengthened for resource generation. Coordination and linkages between EWS Design Committee with DoHM should be established to get regular technical backstopping for EWSs.

v. Carrying out public audits to ensure transparency is a laudable idea, but the public auditing package should be designed so that it covers programmatic as well as financial aspects. Public audits should be carried out at the middle and end of the project tenure to ensure transparency and to gauge performance evaluation of the project activities.

vi. The sustainability of good project initiatives depends upon whether or not the district government exhibits a sense of ownership over them. It is good to see that government agencies and local authorities have started to support DP initiatives by sharing resources and technical expertise. Proper advocacy and lobbying should be continued for garnering external resources as well as technical backstopping from district government.

vii. To make sure good practices mature, the project should continue providing limited support in the project communities. Some institutional support for DPCs and VDMCs and assistance in linking project communities with district and national response systems is needed. Because the project’s results were so good, it is strongly recommended that a new project should be launched among the vulnerable communities of single watershed within Kailali District to demonstrate the best possible options in preparing for and responding to frequent natural disasters.
Annex

Annex 1: Terms of reference

TERMS OF REFERENCE FOR THE END OF PROJECT EVALUATION OF THE DG ECHO-SUPPORTED

KAILALI DISASTER RISK REDUCTION INITIATIVES

KAILALI DISTRICT, NEPAL

1. BACKGROUND
Mercy Corps, in cooperation with Nepal Red Cross Society (NRCS) - Kailali District Chapter, is implementing a Disaster Risk Reduction project (Kailali Disaster Risk Reduction Initiatives) in six communities in four Village Development Committees (VDC) of Kailali District under the 4th DIPECHO Action Plan for South Asia, which is a programme of the European Commission through its Humanitarian Aid department (DG ECHO). The project focuses on flood prone areas in Kailali district, targets the most vulnerable communities, and focuses on bottom up replicable approaches in disaster risk reduction. The six communities are selected on the basis of hazards, history, location, disaster risks, socio-economic status, access to services and institutional assistance. In addition to communities that are directly targeted by the project, the intervention also provides opportunities for replication in neighbouring communities.

Floods are one of the greatest hazards for the population of the target communities. The Mohana River and its tributaries (Katain, Guraha and Khutiya) regularly flood the adjacent areas, eroding river banks, causing loss of life every two or three years and more frequent loss of houses, livestock, village infrastructure, arable land, crops, and other property, hence significantly affecting the livelihoods of thousands of households in the area. Flooding and erosion further disrupt road access, sanitation and services like telecommunications, schools and health care. Indirect effects are health problems related to inundation of latrines and drinking water sources.

The project aims at building safer communities by applying disaster risk reduction measures in collaboration with communities, local government and other key stakeholders. The project focuses on five key intervention areas: capacity building; early warning systems; small-scale mitigation work; education; and, networking/coordination activities. Through these initiatives, the project intends actively to contribute to the Hyogo Framework for Action and to share results and lessons learned with a wider audience, including national and global Disaster Risk Reduction actors and other Mercy Corps programs.

NRCS Kailali District Chapter plays the main role in implementing and managing this project, hence NRCS possesses the executive role for most of the activities. NRCS ensures project administration, financial administration, coordination with authorities, other DP stakeholders in the district, and NRCS National Headquarters, mobilization of NRCS sub-chapters and reporting for the effective implementation of the project.

Project goals are to:

- To reduce disaster risks in Nepal through increased awareness and capacity of vulnerable communities to prepare for and respond to frequent natural disasters (Principal Objective).
- To ensure that vulnerable communities and institutions in Kailali district are better prepared to respond to natural disasters, are linked into district and national response systems, and contribute to shared learning on risk reduction practices (Specific Objective).

The expected results of the project are:
1.1 Six Disaster Preparedness Committees (DPC) set up and/or strengthened to better manage disaster risks.
1.2 Four VDCs where DP-relevant support institutions are able to sustainably support DP activities and raise DP awareness.
2 Six communities with tested local early warning systems and communication systems.
3 Four VDCs with community led small scale infrastructure and bio-engineering mitigation projects to mitigate against hazards.
4 Eight ‘Young Rescuers Clubs’ set up in local schools to pass on knowledge in disaster preparedness to younger peers.
5 Project results and lessons contribute to Hyogo Framework for Action and shared at district, national and global level.

The implementation of the KDRRI project had an initial timeframe of 15 months. The project was granted a one-month no-cost extension upon submission of the intermediate report and was suspended for two months as a result of the September 2008 flooding in Kailali District. The project therefore has a total duration of 18 months (November 2007 – April 2009). It is understood that although the evaluation is scheduled to take place after the end of the project, all cost need to be committed by the end of April 2009.

2. OBJECTIVE OF THE EVALUATION

The overall objective of this evaluation will be to analyze achievements and the limitations of the project. The evaluation is further seen as part of Mercy Corps’ key learning for future reference. The evaluation is expected to provide recommendations and directions for Mercy Corps’ future support for DRR interventions in Nepal.

3. SCOPE OF WORK

The scope of work shall be a systematic and objective evaluation to assess whether the objectives of the project were accomplished and make recommendations as to the replicable nature of the project, its sustainability, and overall impact. With specific guidelines from Mercy Corps, the consultant will investigate amongst others:

- Analysis of adequacy of the project design to meet specified goals and outputs,
- Analysis of the efficiency, effectiveness, and possible effects of the activities and measures taken to sustain the results achieved through the project
- Analysis of the outcome in terms of empowerment, particularly with respect to building capacities of women and other differently vulnerable groups to participate and contribute to the decision making process
- Analysis of the outcome of the project in terms of replicability and sustainability with special focus on the Early Warning Systems, the small-scale mitigation measures and the Disaster Preparedness Committees.
- Analysis of the ability of Community Disaster Preparedness Committees to mobilize, organize and train other communities as a means to replicate programme activities,
- Analysis of the effectiveness of children sharing training knowledge with other children
- Review the implementation and management procedures set for the project.

The evaluation will recommend strategies to further advance the project initiatives
4. **METHOD OF WORK**

The evaluation will be participatory, by involving the views of different stakeholders, particularly the target beneficiaries in the process.

The evaluation includes:

- Briefing with Mercy Corps DIPECHO Project Manager, Country Director and M&E Manager
- Meeting with ECHO Representative to Nepal
- Review of secondary information
- Interview of Mercy Corps and NRCS Project Staff
- Field visit including focal group discussions with the target communities
- Interview with relevant DRR stakeholders at VDC and DDC level
- Ocular inspections of structural mitigation projects
- Review of project management structures
- Presentation of findings during a debriefing in Dhangadhi and in Kathmandu
- Submission of 15 page report in English (hard and soft copy)

The evaluation will involve all stakeholders: donor (ECHO), Mercy Corps, government officials, and communities, including leaders, children and youth. A review of all reports and other materials, and extensive field research throughout the region will be required.

5. **TIME FRAME**

The timeframe for the evaluation will be 15 working days including travel to the field, presentation of findings and submission of final report. The evaluation will take place from May 1 to May 22, 2009.

Necessary permission will be arranged from relevant authorities by the project team

6. **EVALUATION TEAM**

The evaluation team will be composed of one senior external consultant which will be the team leader and overall responsible for the evaluation. The team leader will be assisted by one representative from Mercy Corps, one representative from NRCS – Kailali, and one representative from the Kailali district government.

7. **CONSULTANTS QUALIFICATIONS**

Essential qualifications:

- Experience in evaluation of disaster preparedness/risk reduction projects with ample experience and knowledge in contract/project management
- Experience in preparing reports for major donors (succinct and well-edited reports)
- High level of proven experience and expertise in disaster management with emphasis on community based disaster preparedness
- In Depth knowledge of the disaster preparedness sector
- Experience in using various evaluative research methods, including participatory research methods
• Intercultural communications skills at community and government level

Desirable qualifications:

• Understanding of local context, particularly related to the natural disaster situation in Nepal
• Ability to understand local language
• Previous experience/exposure in ECHO/DIPECHO projects and understanding of FPA

8. OUTPUT OF THE EVALUATION:

The final output of the consultancy will be a 15 page evaluation report in English, including methodology and tools used findings of the evaluation, strategic directions and recommendations. Any other documents and notes related to the evaluation will be annexed the final report.

9. APPLICATION PROCESS:

Applicants should submit a concept outline of how they would implement the scope of work and what indicators would be used. The scope of work should be a maximum of three pages and accompanied by a resume outlining related experience.

10. REPORTING TO:

Ulla Dons, Project Manager

Annex 2: Checklist and Guide Questions

A. Consultation meeting

1. Has the project achieved the proposed Principal and Specific objectives and intended results (to be analysed against the proposed indicators)? Has capacity been build and vulnerability reduced – are communities and institutions better prepared for and to respond to the disasters?

2. Is the project framework, processes and methods appropriate within the current context and in accordance with ECHO/DIPECHO framework?

3. How much has the project succeeded in ensuring sustainability of the results generated by the project and to what extent has the project been able develop measures to sustain the community institutions?

4. Has the project method and approach followed by MC is adequate and effective? Are there any more effective alternatives?

5. Has the project contributed in informing and empowering people to understand and access rights in times of disasters?

Participants:
• KDRRI and NRCS team
6. Has the project management systems and processes been effective to ensure quality, efficacy, accountability and transparency? Are there any suggested alternatives to these systems and processes?

7. How much has the beneficiaries owned the project at the grassroots? Has the project ensured participation at all levels?

8. Has the project directly contributed to empowering women, person with disability (PwD), youths, students, and other differentially vulnerable groups in reducing the disaster risks?

9. To what extent has MC DIPECHO project in Nepal able to coordinate with other stakeholders and complement local and national initiatives?

10. Has the project created tangible outcomes to reduce disaster vulnerability among the target population with an aim of sustaining the results gained through the project?

11. Are there any key learning and practices of the project that holds potential for replication at local, national or international level?

12. Does the project complement and contribute to country program strategy within MC Nepal?

13. Has the project ensured transparency and accountability in implementation through a participatory approach at all levels?

14. Is the project design and plan appropriate to achieve the set objectives?

15. What are the recommendations for similar initiatives for future with specific and focuses comments on strategy, methods, approaches and project management systems?

16. To what extent has MC contributed to the coordination mechanism within the district level stakeholders for DRR?

17. Has the project developed appropriate linkages with various stakeholders, particularly government at local and national levels and contributed to national risk reduction measures through its approach and implementation?

18. To what extent does MC in Nepal and its partner have capacity to implement such projects ensuring quality, efficiency, effectiveness and accountability at all levels in terms of strategy, management and networking?

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<th>Considered</th>
<th>Other Comments</th>
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<td>Empowering people in understanding their duties, roles and rights</td>
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<tr>
<td>Empowering women and other vulnerable groups</td>
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B. Focus group discussion

Participants:
- DPCs
- Sub-committees
  - Nursery management
  - Early warning and rescue
  - Procurement and accounting
  - Construction and community mobilisation
  - Search and rescue
- Youths
- Community members
- Students
- Teachers

RESULT 1.1 [Six Disaster Preparedness Committees (DPC) set up and/or strengthened to better manage disaster risks]

<table>
<thead>
<tr>
<th>Key activities</th>
<th>Achievements</th>
<th>Gender &amp; equity</th>
<th>Participation &amp; empowerment</th>
<th>Ownership</th>
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RESULT 1.2 [Four VDCs where DP-relevant support institutions are able to sustainably support DP activities and raise DP awareness.]

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<th>Participation &amp; empowerment</th>
<th>Ownership</th>
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RESULT 2 [Six communities with tested local early warning systems and communication systems.]

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RESULT 3 [Four VDCs with community led small-scale infrastructure and bio-engineering mitigation projects to mitigate against hazards.]

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<th>Ownership</th>
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RESULT 4 [Eight ‘Young Rescuers Clubs’ set up in local schools to pass on knowledge in disaster preparedness to younger peers.]

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<th>Participation &amp; empowerment</th>
<th>Ownership</th>
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RESULT 5 [Project results and lessons contribute to Hyogo Framework for Action and shared at district, national and global level.]

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<th>Participation &amp;</th>
<th>Ownership</th>
<th>Sustainability</th>
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</tbody>
</table>
1. What are your views about the project?

2. What are the key good aspects of the projects? Examples, evidences?

3. What are the key areas for the improvements of the projects? Examples, evidences?

4. What are the major opportunities of the project?

5. What are the major threats of the project?

6. What were the problems faced, and how were they addressed?

7. What are the major gaps in terms of reducing the disaster risks?

8. What are the major lessons learnt?

9. What are the specific recommendations for similar types of interventions in the future?

C. Key informant interview

1. In overall, what are your views about the project?

2. What are the key good aspects of the projects? Examples, evidences?

3. What are the key areas for the improvements of the projects? Examples, evidences?

4. What are the major opportunities of the project?

5. What are the major threats of the project?

6. What were the problems faced, and how were they addressed?

7. What are the major gaps in terms of reducing the disaster risks?

8. What are the major lessons learnt?

9. What are the specific recommendations for similar types of interventions in the future?

Key informants:

- Mercy Corps and NRCS Project Staff
- VDC level stakeholders
  - VDC Secrecies
  - CBOs (CFUG, WUA, Farmers group, Anti poaching committee, school management committee, youth clubs) members
  - Students of Young Rescuer Clubs
  - Teachers
- Traditional leaders: Bhalnansha, Aghariya
D. Interaction meetings with district level stakeholders

1. In your opinion, did the project ensure transparency and accountability in implementation through a participatory approach at all levels? If yes, what are/were the evidences? If not, what were the gaps?

2. Do you feel the project addressed issues related to gender balance and equity?

3. In your view, has the project directly contributed to empowering women and other differentially vulnerable groups by bringing them into the grassroots decision making process?

4. In your opinion, how much has the project succeeded in ensuring sustainability of the results generated by the project and to what extent has the project been able to develop measures to sustain the community institutions?

5. How much has the beneficiaries owned the project at the grassroots?

6. In your opinion, what extent has Mercy Corps contributed to the coordination mechanism in the country to build the safer communities?

7. Do you think there are any key learning and practices of the project that holds potential for replication at local, national or international level?

8. What will be the possible coordination in terms of resource sharing for the sustainability of the good project initiatives at the ground?

9. Do you feel the project's initiatives towards the disaster risks reduction will sustain in the future

10. What are your the recommendations for similar initiatives for future?

11. Other comments

E. Observation/transect walk

1. Ocular inspections of structural mitigation projects, their usefulness, effectiveness, ways of improvements, etc

Annex 3: Field Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Key anticipated works</th>
<th>Participants</th>
<th>Night stay at</th>
</tr>
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</table>
| Day 1 (6th May) | Fly to Dhangadhi  
              Morning: Briefing meeting with KDRRI field team | KDRRI team                                             | Dhangadhi     |
| Day 2 (7th May) | Morning: Travel to Hasauliya  
              Afternoon: Field visit to Mohanpur                  | DPC members, sub-committee members, teachers, students | Hasauliya     |
| Day 3 (8th May) | Morning: Field visit to Lalitpur  
              Afternoon: Field visit to Manikapur                  | DPC members, sub-committee members, teachers, students | Hasauliya     |
| Day 4 (9th May) | Morning: Field visit to Shivaratanpur  
              Afternoon: Field visit to Bishanpur                  | DPC members, sub-committee members, teachers, students | Hasauliya     |
<p>| Day 5 (10th May)  | Field visit to Jokhaiyapur                                | DPC members, sub-committee members, teachers, students | Hasauliya     |</p>
<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Morning</th>
<th>Afternoon</th>
<th>Location</th>
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<tr>
<td>6</td>
<td>11th May</td>
<td><em>Interaction with VDC level stakeholders</em></td>
<td><em>Interaction with school students and teachers</em></td>
<td>Hasauliya</td>
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<tr>
<td></td>
<td></td>
<td><em>Interaction with stakeholders</em></td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>12th May</td>
<td><em>Interaction meeting with DPC coordinators and secretaries</em></td>
<td>Back to Dhangadhi</td>
<td>Dhangadhi</td>
</tr>
<tr>
<td>8</td>
<td>13th May</td>
<td><em>Interaction meeting with NRCS, DWIDP, DSCO, DFO</em></td>
<td>Back to Dhangadhi</td>
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<tr>
<td>9</td>
<td>14th May</td>
<td>Debriefing meeting with project team</td>
<td>Fly to Kathmandu by afternoon flight</td>
<td>KDRRI</td>
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**Annex 4: List of Teachers and Students of Interaction Meeting**

**Teachers**
1. Laxman Raj Ranabhat
2. Ram Bahadur Chhetri
3. Basudev Chaudhari
4. Tika Ram Adhikari
5. Piram Raj Pant
6. Lalu Ram Chaudhari
7. Chhulu Ram Chaudhari
8. Ashok Kumar Chaudhari
9. Dinesh Okhada
10. Bikas Sarki
11. Shanti Chaudhari

**Students**
1. Basanta Singh
2. Kamal BK
3. Sabina Chhetri
4. Sandhya Chaudhari
5. Sakuntala Chaudhari
6. Suman Joshi
7. Seema BK
8. Bhagiram Chaudhari
9. Sushma Sigdel
10. Rabina BK
11. Yubaraj Chaudhari
12. Laxmi Pd Chaudhari
13. Dil Bahadur Chaudhari
14. Bal bahadur Chaudhari
15. Jeet Bahadur Chaudhari
16. Dhruba Ram Chaudhari
17. Sunil Kumar Chaudhari
18. Daya Ram Chaudhari
19. Jaya Chaudhari
20. Kanti Kumari Chaudhari
21. Rena Kumari Chaudhari
22. Shakti Kumari Chaudhari
23. Manneta Chaudhari
24. Junika Chaudhari
25. Urmila Chaudhari
26. Maneesh Chaudhari
27. Depak Chaudhari

41
28. Tej Ram Chaudhari  
29. Nabin Siwakoti  
30. Prasanta Thakur

Annex 5: List of VDC Level Stakeholders
1. Ram Bahadur Singh, VDC Secretary, Phulbari  
2. Bishnu Bahadur Okheda, DCM, NCP (Maoist) representative, Phulbari  
3. Kapan Khati, VDC Secretary, Hasuliya  
4. Naresh Kumar Chaudhari, social leader, Hasuliya  
5. Jaggi Ram Chaudhari, Social leader, Ratanpur  
6. Krishna Bahadur Barat, social leader, Hasuliya  
7. Krishna Chaudhari, Nepali Congress representative, Hasuliya  
8. Ekray Chaudahri, Rastriya Prajatantra Party representative, Ratanpur  
9. Jogiram Chaudhari, Social leader, Ratanpur  
10. Balaram Chaudhari, VDC Secretary, Pabera VDC  
11. Harka Bahadur Bista, Police Inspector, Hasuliya  
12. Kamal Chaudhari, NCP (Maoist) representative, Ratanpur  
13. Hutiram Chaudhari, social leader, Bisanpur  
14. Lahuram Chaudhari, social leader, Ratanpur  
15. Maniram Chaudhari, social leader, Hasuliya

Annex 6: List of DPC Coordinators and Secretaries

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<td>Bisanpur</td>
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<tr>
<td>2</td>
<td>Jeet Bahadur Chaudhari</td>
<td>Coordinator</td>
<td>Shiratanpur</td>
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<tr>
<td>3</td>
<td>Ram Bahadur Chaudhari</td>
<td>Coordinator</td>
<td>Manikpur</td>
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<tr>
<td>4</td>
<td>Prem Bahadur Chaudhari</td>
<td>Coordinator</td>
<td>Lalitpur</td>
</tr>
<tr>
<td>5</td>
<td>Cheduram Chaudhari</td>
<td>Coordinator</td>
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<tr>
<td>6</td>
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Annex 7: List of District Level Stakeholders
1. Mr Tarakant Chaudhary, DWIDP, Kailali  
2. Mr Lok Jan Chaudhary, BASE, Kailali  
3. Mr Ram Rasaily Chaudhary, BASE, Kailali  
4. Mr Bal Bahadur Shiladhar, CSSD, Kailali  
5. Mr Indra Thapa, CSSD, Kailali  
6. Ms Tul Thapa, CSSD, Kailali  
7. Ms Meena Ojha, CSSD, Kailali  
8. Mr Baldev Bhatta, DSCO, Kailali  
9. Mr Devkota, DSCO, Kailali  
10. Mr Rajesh Kumar Mahato, DoHM, Attariya, Kailali  
11. Ms Pinki Kunwar, Dinesh FM, Kailali
## Annex 8: Quantitative Data/Figure

### Table 1a: Number of participants in various trainings

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<td>12</td>
<td>18</td>
<td>23</td>
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<tr>
<td></td>
<td></td>
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<td></td>
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<td>17</td>
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<td>86</td>
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<td></td>
<td></td>
<td>227</td>
<td>208</td>
</tr>
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</table>

Source: Project record 2007-08

### Table 1b: Number of participants in various trainings

<table>
<thead>
<tr>
<th>VDC</th>
<th>Community</th>
<th>Search and Rescue</th>
<th>Search a Rescue (Refresher)</th>
<th>Total</th>
<th>Nursery Management</th>
<th>Gabion Weaving</th>
<th>Community Mobilization</th>
<th>Account Keeping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
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<td>Phulbari</td>
<td>Lalitpur</td>
<td>4</td>
<td>0</td>
<td>19</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Hasuliya</td>
<td>Mohanpur</td>
<td>4</td>
<td>0</td>
<td>10</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>19</td>
</tr>
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<td></td>
<td>Shivaranpur</td>
<td>4</td>
<td>0</td>
<td>14</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>Pabera</td>
<td>Bisanpur</td>
<td>4</td>
<td>0</td>
<td>20</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>21</td>
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<tr>
<td></td>
<td>Mankapur</td>
<td>4</td>
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<td>10</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>18</td>
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<tr>
<td>Ratanpur</td>
<td>Jokahiyapur</td>
<td>4</td>
<td>0</td>
<td>9</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>15</td>
</tr>
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<td></td>
<td></td>
<td>24</td>
<td>0</td>
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</table>

Source: Project record 2007-08

### Table 2: Number of participants in the trainings and events

<table>
<thead>
<tr>
<th>S.N</th>
<th>Training/ Events</th>
<th>Participants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>Community level training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Leadership Development</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>2</td>
<td>Street Drama Training</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>IEC Facilitation Training for Door-to Door Campaign</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>IEC Development Workshop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Rainfall Part Time observer Training including 1 day downstream area visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Stream Gauge Reader Training including 1 day downstream area visit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Participation in various events/exercises</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Street drama events</td>
<td>8,743</td>
<td>9,299</td>
</tr>
<tr>
<td>2</td>
<td>Door to door campaigns</td>
<td></td>
<td>3,572</td>
</tr>
</tbody>
</table>
### Participation of staffs, NRCS and district level stakeholders

<table>
<thead>
<tr>
<th></th>
<th>Proposal writing training (staff)</th>
<th></th>
<th>OD review workshop (NRCS, GOs and other stakeholders)</th>
<th></th>
<th>Community Risk Assessment training (staff)</th>
<th></th>
<th>DRM Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>48</td>
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<td><strong>138</strong></td>
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</tbody>
</table>

Source: Project record 2007-08

### Table 3: Warnings based on water levels

<table>
<thead>
<tr>
<th>River</th>
<th>Location</th>
<th>Average flood level</th>
<th>Warning flood level (1st stage)</th>
<th>Warning flood level (2nd stage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohona</td>
<td>Malakheti</td>
<td>2.0 m</td>
<td>2.5 m</td>
<td>3.4 m</td>
</tr>
<tr>
<td>Khutiya</td>
<td>Mudi Bhavar</td>
<td>2.1 m</td>
<td>3.6 m</td>
<td>4.8 m</td>
</tr>
<tr>
<td>Shiva</td>
<td>Ganaga</td>
<td>1.5 m</td>
<td>1.8 m</td>
<td>2.5 m</td>
</tr>
<tr>
<td>Guruha</td>
<td>Highway Bridge</td>
<td>1.2 m</td>
<td>1.5 m</td>
<td>2 m</td>
</tr>
<tr>
<td>Kataini</td>
<td>Highway Bridge</td>
<td>1.8 m</td>
<td>2.2 m</td>
<td>2.8 m</td>
</tr>
</tbody>
</table>

### Table 4: Lead time of flooding for different locations

<table>
<thead>
<tr>
<th>River</th>
<th>Location</th>
<th>Calculated hours</th>
<th>Suggested hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohona</td>
<td>Malakheti to Bisanpur</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Malakheti to Bhansar</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Bhansar to Bisanpur</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Khutiya</td>
<td>Khutiya Mudi Bhavar to Bisanpur</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Gauri Ganga</td>
<td>Highway to Lalitpur</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>Kataini</td>
<td>Highway to Manikapur</td>
<td>4.2</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### Table 5: Search and Rescue equipment provided for Project Schools

<table>
<thead>
<tr>
<th>S.N</th>
<th>Items</th>
<th>Unit</th>
<th>Provided # per school (A)</th>
<th>Total Required Items (for 8 schools)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Helmet</td>
<td>PCs</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>Goggles</td>
<td>PCs</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Leather work gloves</td>
<td>Pairs</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>Dust Mask</td>
<td>PCs</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Safety vest</td>
<td>PCs</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>Flash Light</td>
<td>PCs</td>
<td>4</td>
<td>32</td>
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</tbody>
</table>

Source: Project record 2007-08

### Table 6: Status of Emergency and Maintainence Fund

<table>
<thead>
<tr>
<th>Community</th>
<th>Community contribution</th>
<th>In Kind (1)</th>
<th>KDRRI contribution</th>
<th>Total</th>
<th>Expenditure (2)</th>
<th>Balance end project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manikapur</td>
<td>6,501</td>
<td>9,275</td>
<td>35,209</td>
<td>50,985</td>
<td>9,128</td>
<td>41,857</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>78,551</td>
<td>15,000</td>
<td>35,209</td>
<td>128,760</td>
<td>17,545</td>
<td>111,215</td>
</tr>
<tr>
<td>Shivaratanpur</td>
<td>8,864</td>
<td>8,842</td>
<td>35,209</td>
<td>52,915</td>
<td>20,123</td>
<td>32,792</td>
</tr>
<tr>
<td>VDC</td>
<td>Community</td>
<td>Shelter (Nos)</td>
<td>Spur (Nos)</td>
<td>Raised hand Ppmp (Nos)</td>
<td>Nursery (Nos)</td>
<td>Boat (Nos)</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>----------------</td>
<td>------------</td>
<td>------------------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>Phulbari</td>
<td>Lalitpur</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hasuliya</td>
<td>Shivaratanpur</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>Bisanpur</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pabera</td>
<td>Mankapur</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Ratanpur</td>
<td>Jokhayapur</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Total</td>
<td></td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Project record 2007-08

Table 8: Status of mitigation work, community nurseries and plantation

<table>
<thead>
<tr>
<th>VDC</th>
<th>Community</th>
<th>Bio-eng sites</th>
<th>Nursery area (m²)</th>
<th>Seedlings (No.)</th>
<th>Plantation area (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phulbari</td>
<td>Lalitpur</td>
<td>625 m</td>
<td>250 m²</td>
<td>10,000</td>
<td>8,000 m²</td>
</tr>
<tr>
<td>Hasuliya</td>
<td>Shivaratanpur</td>
<td>400 m</td>
<td>100 m²</td>
<td>6,000</td>
<td>2,000 m²</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>Bisanpur</td>
<td>350 m</td>
<td>100 m²</td>
<td>4,000</td>
<td>3,000 m²</td>
</tr>
<tr>
<td>Pabera</td>
<td>Mankapur</td>
<td>150 m</td>
<td>150 m²</td>
<td>5,000</td>
<td>1,500 m²</td>
</tr>
<tr>
<td>Ratanpur</td>
<td>Jokhayapur</td>
<td>470 m</td>
<td>275 m²</td>
<td>12,000</td>
<td>10,000 m²</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,995 m</td>
<td>975 m²</td>
<td>43,000</td>
<td>27,300 m²</td>
</tr>
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</table>

Source: Project record 2007-08

Table 9: Status of external resource generation

<table>
<thead>
<tr>
<th>Community</th>
<th>Fund provider</th>
<th>Related work</th>
<th>Amount (NRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lalitpur</td>
<td>DSCO</td>
<td>Toe protection and bio-engineering</td>
<td>16,000.0</td>
</tr>
<tr>
<td>Lalitpur</td>
<td>DWIDP</td>
<td>Gabion box (17 set) &amp; 1 spur construction</td>
<td>32,300.0</td>
</tr>
<tr>
<td>Lalitpur</td>
<td>DSCO</td>
<td>Spur construction work</td>
<td>400,000.0</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>DSCO</td>
<td>Toe protection and bio-engineering</td>
<td>16,000.0</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>DWIDP</td>
<td>Gabion box (18 sets)</td>
<td>34200.0</td>
</tr>
<tr>
<td>Mohanpur</td>
<td>DAO</td>
<td>Spur construction and toe protection work</td>
<td>700,000.0**</td>
</tr>
<tr>
<td>Shivaratanpur</td>
<td>VDC</td>
<td>Construction of boat</td>
<td>5000.0</td>
</tr>
<tr>
<td>Bisanpur</td>
<td>DSCO</td>
<td>Toe protection and bio-engineering</td>
<td>16,000.0</td>
</tr>
<tr>
<td>Manikapur</td>
<td>DSCO</td>
<td>Toe protection and bio-engineering</td>
<td>16,000.0</td>
</tr>
<tr>
<td>Jokhayapur</td>
<td>DSCO</td>
<td>Toe protection and bio-engineering</td>
<td>16,000.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>851,500.0</td>
</tr>
</tbody>
</table>

** Only committed

Source: Project record 2007-08
Table 10a: Number of students participated in the various trainings

<table>
<thead>
<tr>
<th>VDC</th>
<th>School</th>
<th>Leadership development</th>
<th>Community-Based Disaster Risk Management</th>
<th>First Aid</th>
<th>Soil conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  F  Total</td>
<td>M  F  Total</td>
<td>M  F  Total</td>
<td>M  F  Total</td>
</tr>
<tr>
<td>Fulbari</td>
<td>Janapriya Primary School</td>
<td>9  10  19</td>
<td>17  16  33</td>
<td>18  16  34</td>
<td>25  15  40</td>
</tr>
<tr>
<td></td>
<td>Shree Shankar Sarsawati School</td>
<td>10  9  19</td>
<td>14  16  30</td>
<td>16  18  34</td>
<td>46  35  81</td>
</tr>
<tr>
<td>Hasauliya</td>
<td>Janakalyan Lower Sec School</td>
<td>8  8  16</td>
<td>14  16  30</td>
<td>16  18  34</td>
<td>47  35  82</td>
</tr>
<tr>
<td></td>
<td>Dipendra Higher Sec School</td>
<td>7  8  15</td>
<td>15  17  32</td>
<td>18  16  34</td>
<td>82  50  132</td>
</tr>
<tr>
<td>Pabera</td>
<td>Sunaratal Proposed Sec School</td>
<td>8  9  17</td>
<td>13  17  30</td>
<td>16  18  34</td>
<td>58  56  114</td>
</tr>
<tr>
<td></td>
<td>Janakalyan Higher Sec School</td>
<td>10  11  21</td>
<td>15  15  30</td>
<td>17  20  37</td>
<td>55  41  96</td>
</tr>
<tr>
<td>Ratanpur</td>
<td>Rastraya Proposed Sec School</td>
<td>6  7  13</td>
<td>14  16  30</td>
<td>16  18  34</td>
<td>39  30  69</td>
</tr>
<tr>
<td></td>
<td>Rastraya Sec School.</td>
<td>8  10  18</td>
<td>20  18  38</td>
<td>20  14  34</td>
<td>46  23  73</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>66  72  138</td>
<td>122  131  253</td>
<td>137  138  275</td>
<td>398  285  683</td>
</tr>
</tbody>
</table>

Source: Project record 2007-08

Table 10b: Number of students participated in the various trainings

<table>
<thead>
<tr>
<th>VDC</th>
<th>School</th>
<th>Child to child Training (Student)</th>
<th>Disaster Risk Management (Teachers) including refresher</th>
<th>First Aid (Teachers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M  F  Total</td>
<td>M  F  Total</td>
<td>M  F  Total</td>
</tr>
<tr>
<td>Fulbari</td>
<td>Janapriya Primary School</td>
<td>108  119  227</td>
<td>4  4  2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Shree Shankar Sarsawati School</td>
<td>201  174  375</td>
<td>1  1  2</td>
<td>2</td>
</tr>
<tr>
<td>Hasauliya</td>
<td>Janakalyan Lower Sec School</td>
<td>246  244  490</td>
<td>3  1  4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Dipendra Higher Sec School</td>
<td>168  163  331</td>
<td>2  2  2</td>
<td>2</td>
</tr>
<tr>
<td>Pabera</td>
<td>Sunaratal Proposed Sec School</td>
<td>163  138  301</td>
<td>3  2  5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Janakalyan Higher Sec School</td>
<td>281  216  497</td>
<td>4  4  1</td>
<td>2</td>
</tr>
<tr>
<td>Ratanpur</td>
<td>Rastraya Proposed Sec School</td>
<td>87  77  164</td>
<td>4  4  2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Rastraya Sec School.</td>
<td>227  201  428</td>
<td>3  3  2</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 1a: Number of students participated in extra curricular activities

<table>
<thead>
<tr>
<th>VDC</th>
<th>School</th>
<th>Art Competition (Intra School)</th>
<th>Art Competition (Inter School)</th>
<th>Simulation (School)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td>Total</td>
</tr>
<tr>
<td>Fulbari</td>
<td>Janapriya Primary School</td>
<td>9</td>
<td>27</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Shree Shankar Sarsawati Lower Sec School</td>
<td>21</td>
<td>20</td>
<td>41</td>
</tr>
<tr>
<td>Hasauliya</td>
<td>Janakalyan Lower Sec School</td>
<td>23</td>
<td>35</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Dipendra Higher Sec School</td>
<td>19</td>
<td>24</td>
<td>43</td>
</tr>
<tr>
<td>Pabera</td>
<td>Sunaratal Proposed Lower Secondary School</td>
<td>22</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Janakalyan Higher Sec School</td>
<td>26</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Ratanpur</td>
<td>Rastraya Proposed Lower Secondary School</td>
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<td>34</td>
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<tr>
<td></td>
<td>Rastraya Secondary School</td>
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<td>Total</td>
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<td>163</td>
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Source: Project record 2007-08

Table 1b: Number of students participated in extra curricular activities

<table>
<thead>
<tr>
<th>VDC</th>
<th>School</th>
<th>Simulation (Inter School)</th>
<th>Essay Competition</th>
<th>DP Awareness Campaign</th>
</tr>
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<tbody>
<tr>
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<td></td>
<td>M</td>
<td>F</td>
<td>Total</td>
</tr>
<tr>
<td>Fulbari</td>
<td>Janapriya Primary School</td>
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<td>15</td>
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<tr>
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<td>Shree Shankar Sarsawati Lower Sec School</td>
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<td>Hasauliya</td>
<td>Janakalyan Lower Sec School</td>
<td>47</td>
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<td>Dipendra Higher Sec School</td>
<td>82</td>
<td>50</td>
<td>132</td>
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<tr>
<td>Pabera</td>
<td>Sunaratal Proposed Lower Secondary School</td>
<td>58</td>
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<td></td>
<td>Janakalyan Higher Sec School</td>
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<td></td>
<td>Rastraya Secondary School</td>
<td>46</td>
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Source: Project record 2007-08
Annex 9: Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE</td>
<td>Backward Society Education</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
</tr>
<tr>
<td>CFUG</td>
<td>Community Forest User Group</td>
</tr>
<tr>
<td>DDC</td>
<td>District Development Committee</td>
</tr>
<tr>
<td>DFO</td>
<td>District Forestry Officer</td>
</tr>
<tr>
<td>DoHM</td>
<td>Department of Hydrology and Meteorology</td>
</tr>
<tr>
<td>DP</td>
<td>Disaster Preparedness</td>
</tr>
<tr>
<td>DPC</td>
<td>Disaster Preparedness Committee</td>
</tr>
<tr>
<td>DRM</td>
<td>Disaster Risk Management</td>
</tr>
<tr>
<td>DRR</td>
<td>Disaster Risk reduction</td>
</tr>
<tr>
<td>DSCO</td>
<td>District Soil Conservation Office</td>
</tr>
<tr>
<td>DTO</td>
<td>District Technical Office</td>
</tr>
<tr>
<td>DWIDP</td>
<td>District Water Induced Disaster Prevention</td>
</tr>
<tr>
<td>EWS</td>
<td>Early Warning System</td>
</tr>
<tr>
<td>IEC</td>
<td>Information Education and Communication</td>
</tr>
<tr>
<td>JRC</td>
<td>Junior Red Cross Circles</td>
</tr>
<tr>
<td>KAP</td>
<td>Knowledge, Attitude and Practice</td>
</tr>
<tr>
<td>KDRRI</td>
<td>Kailali Disaster Risk Reduction Initiatives</td>
</tr>
<tr>
<td>MC</td>
<td>Mercy Corps</td>
</tr>
<tr>
<td>NRCS</td>
<td>Nepal Red Cross Society</td>
</tr>
<tr>
<td>SMC</td>
<td>School Management Committee</td>
</tr>
<tr>
<td>VDC</td>
<td>Village Development Committee</td>
</tr>
<tr>
<td>VDMC</td>
<td>Village Disaster Management Committee</td>
</tr>
<tr>
<td>WUG</td>
<td>Water User Group</td>
</tr>
<tr>
<td>YRC</td>
<td>Young Rescuer Club</td>
</tr>
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