Nepal Community Based Disaster Risk Management in Koshi Basin

Final Evaluation Report

March 2017

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INTRODUCTION

Classified as a global 'hotspot' (World Bank, 2005), Nepal is vulnerable to multiple natural disasters, suffering an average of 900 natural disasters each year resulting in lost lives and damaged livelihoods (MoHA, 2009). The Natural Disaster Relief Act, 1982 of Government of Nepal (GON) is the first Act so far that recognizes earthquake, fire, storm, flood, landslide, heavy rainfall, drought, famine and epidemics as disaster.

Disasters often have significant impact on social, economic, cultural and environmental systems. Despite some extent of growing understanding and acceptance of the importance of Disaster Risk Management (DRM), people are not fully aware of the causes and consequences of hazards; on the other hand, they have limited access on the information. Thus, there is an urgent need to redress the proactive policies related to natural disasters, with emphasis on preparedness, rescue, relief management, and rehabilitation. In this context, the Nepal Risk Reduction Consortium (NRRC) recognizes the value of empowered communities as a key driver to reduce vulnerability to natural disasters. The NRRC Flagship 4, led by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the Ministry of Federal Affairs and Local Development (MoFALD), is taking the lead in reducing vulnerability to natural disasters through community based disaster risk reduction.

In the same context, IFRC implemented an integrated community-based resilience project in the Koshi River basin since 1 June 2013 to 31 December 2016 and World Bank was one of the partners to support this. In addition to World Bank, Nepal Red Cross Society (NRCS) and IFRC worked in partnership with American Red Cross, Japanese Red Cross, Norwegian Red Cross, and Zurich Alliance for the project. This project targeted a total of 25 vulnerable communities in five most vulnerable districts in the Koshi basin. These districts included - Saptari, Sunsari, Udayapur, Khotang and Bhojpur. Health, water, sanitation and hygiene promotion (WASH), disaster risk reduction (DRR), livelihood, organizational development and capacity building were the major components of the programme carried out in areas that are at risk of different hazards.

According to the Vulnerability and Capacity Assessment (VCA) reports, in the flatland of Saptari and Sunsari, the risk associated with floods is noted. Additionally, these two districts have also identified the risks associated with wild fire, attack of wild animals, and drought. Bhojpur, on the other hand, face the risk of drought, famine, and wild fire; while in Khotang, the risk is attributable to flood, landslide, attack of wild animals, flood and wild fire. Similarly, in Udayapur, the risks related to flood, attack of wild animals, snake bite and drought was widespread.

METHODOLOGY

Secondary data review; including logical framework, related project periodic reports and publication were reviewed prior to tools development in order to gain insights on the project and its modality.

Key Informant Interviews (KII): 14 stakeholders

Focus Group Discussion (FGD): 14 FGDs with 110 participants

HH Surveyed: 169 HHs[1]

PURPOSE OF THE EVALUATION

The evaluation was based on DAC criteria as well as IFRC Framework for Evaluations criteria with focus on relevance, coverage, effectiveness, efficiency, sustainability and impact.

- Assess the extent to which interventions under the programme have achieved their results at outcome level in line with the baseline assessment report.
- Determine the impact on communities in terms of nine minimum characteristics of a disaster resilient communities (as envisaged in Flagship 4 of Nepal Risk Reduction Consortium.
- Assess the capacity of the NRCS (particularly the district chapter levels) to follow up effectively and make recommendations on how this capacity can be further strengthened and sustained.
- Gather further recommendations from the communities on the next steps.
- Assess the level of ownership taken by the communities after the handovers.

[1] 141 HHs were from intervention communities and 28 HHs were from non-intervention communities.

KEY FINDINGS

The functional disaster management committees in all 25 communities are in place and in front line to respond to small scale disaster.

Local Disaster Risk Management Plans (LDRMPs) are in place in 25 communities and the planned activities are being implemented accordingly. The Village Development Committee (VDC) had endorsed the plan and is linked with Village Disaster Risk Management Plan (VDRMP). However, the community were not being aware of how VCA informs DRR.

The Community Disaster Management Committees (CDMCs) response teams are in place. The community action for disaster response (CADRE), First Aid (FA) team, WASH team etc. were provided with trainings. The CDMCs had maintained the roster of the FA, CADRE, early warning system (EWS) and other volunteers as well. The FA and

CADRE had a rescue kit at prepositioned at CDMC. Nonetheless, retention of the response team was identified as a problem in all study sites.

Disaster management emergency fund is established by the local contribution in form of cash or grain support in each of the 25 communities. Nonetheless, with limited resources and funding, it was difficult for the CDMCs to implement activities outlined in the DRR plans.

Floods EWS with communication mechanism established and functional in three districts. Positively, more than three fourth of the survey respondents were able to identify the EWS focal person. However, it didn't come out strong that there were different means and medium for disseminating messages and information for the people with special needs, especially physically disabled population in other DRR related information. Other than that, people were relying on the modern means and had slowly forgotten about the traditional early warning practices.

Community people were supported by livelihood support programme that have enhanced their living standard by increasing their purchasing power, but there were still a lot of households (HHs) who were poor and vulnerable, thereby making them less prepared and less resilient.

The project had succeeded to create linkage with the local government and community through different consultative and coordination meetings with the district level government stakeholder.

Improved sanitation practice is observed given more than 90% of the HH survey respondents have access to improved sanitation facilities and more than 90% have access to clean and safe drinking water from protective sources.

	Baseline values	**Endline values**
Respondents who cover water vessel	34.2%	95%
Respondents who use of improved sanitation (toilet)	45.3%	100%
Respondents who wash their hands with soap and water	70.8%	100%

The project has been successful in promoting equality and equity to the vulnerable: women and the marginalized groups. The principle of gender equity and social inclusion (GESI) has been incorporated in all phases of the project as a cross cutting issue.

KEY RECOMMENDATIONS

Based on the findings and leaning from the evaluation, the following recommendations are drawn:

1. CDMCs can be familiarized with different alternatives to accumulate and diversify funding.
2. Linking people with existing institutions like cooperatives, and savings group, and market enables them to be better prepared for the disaster by increasing their transformative capacities.
3. A tailored solution need to be provided to disseminate information on DRR to persons with disability (PWD).
4. There should be sharing mechanism via door-to-door awareness through social mobilization to regarding the VCA process. More entertaining ways of awareness raising activities such as street dramas can reach more people and will be effective in future interventions.
5. By working on the location tracker, the Trilogy Emergency Response Application (TERA) system can be used to messaging people since mobile technology is widely prevalent in all the intervention districts.
6. Easy handbooks for DMCs and task forces are needed as there is an issue of retention of trained community members.
7. There should be knowledge transfer from the person trained to others to mitigate the challenge of retention. To retain the learning for the existing response teams, follow-up trainings and post-training support should be provided even after the programme is terminated.
8. In order to mitigate the chances of biasness, and ensure coverage, mediums like radio and community meetings can be utilized in communicating with the community about the orientation and initiation of the programme. Moreover, the frequency of information dissemination should be increased at different time slots.
9. Complaint/grievance handling mechanisms can be improved where beneficiaries need to have right to disagree, right to information and right to lodge complaints.
10. Future focus should be in advocating for taking a mainstreaming approach in addition to stand alone approach (i.e. integrating DRR into interventions in education, agriculture, WASH/health, etc.) in government priorities.

In the nutshell, this community led participatory approach can be replicated or scaled up following the same modality in other communities for it ensures community ownership and sustainability of the project, even after the termination of the programme intervention.

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LIST OF ACRONYMS

AmCross	American Red Cross
CADRE	Community Action for Disaster Response
CBDRR	Community Based Disaster Risk Reduction
CDMC	Community Disaster Management Committees
CoC	Code of Conduct
CRM	Complaint Response Mechanism
DAC	Development Assistance Committee (DAC)
DADO	District Agriculture Development Office
DEOC	District Emergency Operation Centre
DHM	Department of Hydrology and Meteorology
DLSO	District Livestock Support Office
DPHO	District Public Health Office
DPNet	Disaster Preparedness Network
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EWS	Early Warning System
FA	First Aid
FGD	Focus Group Discussions
GESI	Gender Equity and Social Inclusion
GoN	Government of Nepal
HH	Household
IFRC	International Federation of Red Cross and Red Crescent Societies
INGO	International Non-Governmental Organization
JRC	Junior Red Cross
KII	Key Informant Interviews
MLE	Monitoring, Learning and Evaluation
MoFALD	Ministry of Federal Affairs and Local Development
MoHA	Ministry of Home Affairs
NGO	Non-Governmental Organization
NRCS	Nepal Red Cross Society
NRRC	Nepal Risk Reduction Consortium
NSDRM	National Strategy for Disaster Risk Management
OD	Organizational Development
ODK	Open Data Kit
PDNA	Post Disaster Need Assessment
PwD	People with Disability
SPSS	Statistical Package for Social Sciences
ToR	Terms of Reference
VDC	Village Development Committee
VDRMP	Village Disaster Risk Management Plan
WASH	Water, Sanitation and Hygiene Promotion
YRC	Youth Red Cross

2 CHAPTER 1: INTRODUCTION

2.1 NEPAL'S DISASTER CONTEXT

Nepal's geology can be considered to be characterized by rugged topography, very high relief, variable climatic conditions, complex geological structures, affected by active tectonic processes and seismic activities. Located along the Himalayan Arc, geologically, Himalaya and other mountain ranges have been formed by orogeny, resulting from the collision of the Indian sub continental plateau with the Eurasian continental plateau. The orogenic movement is still active as evidenced by numerous earthquakes in the region. The mountains and hilly land forms are young and unconsolidated and are fragile due to crustal destruction in the course of the orogenic movement.

Classified as a global 'hotspot' (World Bank, 2005), Nepal is vulnerable to multiple natural disasters, suffering an average of 900 natural disasters each year resulting in lost lives and damaged livelihoods (MoHA, 2009). The Natural Disaster Relief Act, 1982 of Government of Nepal (GoN) is the first Act so far that recognizes earthquake, fire, storm, flood, landslide, heavy rainfall, drought, famine and epidemics as disaster. Steep slope gradient, intense precipitation and sparse forest have made hills even more erodible. The elevation of the country rises from 60 meters at Terai (Jhapa) to 8,848 meters at Mt. Everest in the north within a short horizontal distance of 90 to 120 Km. Such a sharp verticality renders the country highly vulnerable to potential water-induced disasters like landslide, slope failure, soil erosion, debris flow, etc.

The 2015 Nepal earthquake and subsequent aftershocks killed around 9,000 people and injured over 22,000 (http://drrportal.gov.np). The epicenter of the first earthquake was in Gorkha district and as mentioned in the Post Disaster Need Assessment (PDNA) report of the National Planning Commission (2015), it was the most powerful the country had experienced in 80 years. However, earthquake is not the only hazard the country is exposed to. Every year, Nepal suffers from monsoon floods, landslides, fire, droughts and avalanches among others. While Nepal is identified as 11th most vulnerable country for earthquakes by the Disaster Vulnerability and Risk Assessment Study Report by UNDP/Bureau for Crisis Prevention BCP in 2004, it is also ranked in 30th position in terms vulnerability to floods according to the Nepal Disaster Report of 2015 produced by Disaster Preparedness Network (DPNet) and Ministry of Home Affairs (MoHA) in early 2016.

The poor and the most vulnerable people (women, persons with disabilities and other socially excluded groups) are typically the worst affected by the disasters as they tend to live in vulnerable areas, have less capacity to deal with loss of income and assets, and limited access to risk sharing mechanisms. Occurrences of disasters are random and unpredictable but not entirely uncontrollable events. Factors such as demographic pressure, poor urban planning, settlements in high-risk areas and reduced livelihood options entail a high vulnerability to more frequent, more intense and more unpredictable disasters. Urban communities are increasingly at risk.

Despite some extent of growing understanding and acceptance of the importance of Disaster Risk Management (DRM), people are not fully aware of the causes and consequences of hazards; on the other hand, they have limited access on the information. Information, knowledge and education with better institutional linkages could be the key to reduce the impacts and to enhance the livelihoods and to make the community disaster resilient.

Disasters often have significant impact on social, economic, cultural and environmental systems. Thus, there is an urgent need to redress the proactive policies related to natural disasters, with emphasis on preparedness, rescue, relief management, and rehabilitation. The Nepal Risk Reduction Consortium (NRRC) recognizes the value of empowered communities as a key driver to reduce vulnerability to natural disasters.

The NRRC Flagship 4, led by the International Federation of Red Cross and Red Crescent Societies (IFRC) and the Ministry of Federal Affairs and Local Development (MoFALD), is taking the lead in reducing vulnerability to natural disasters through Community Based Disaster Risk Reduction (CBDRR).

Nepal is a country at risk from floods, landslides, epidemics, fire, cold waves, glacial lake outbursts, avalanches and devastating earthquakes. Nepal is in a precarious situation with regards to the impact of climate change. In this context, "National Strategy for Disaster Risk Management (NSDRM), 2009" has given special priority to preparedness and risk reduction activities in the field of disaster management. It has become necessary to responsible disaster management stakeholders to take initiatives in building disaster resilient communities by mainstreaming disaster risk reduction (DRR) issues into development plans.

2.2 PROJECT OVERVIEW

Koshi is the largest river in Nepal in terms of water volume which also has wide range of catchment area for water source, and has caused widespread human suffering in the past through flooding and very frequent changes in course. The Koshi has an average water flow of 2,166 cubic metres per second (76,500 cu ft/s)[2]. During flooding periods, it increases to as much as 18 times the average.

Extensive soil erosion and landslides in its upper catchment have resulted in the silt yield of the Koshi of about 19 m^3/ha/year, one of the highest in the world. The Koshi's alluvial fan has fertile soil and abundant groundwater in a part of the world where agricultural land is in great demand. Subsistence farmers balance the threat of food shortage with that of floods. As a result, the flood-prone area is densely populated and subject to heavy loss of life.

Based on the situation analysis and an initial assessment of community vulnerabilities it was identified that there was a lack of comprehensive Early Warning System (EWS) that can inform communities earlier for preparation. Similarly, it was identified that the community groups were not fully mobilized to deal with community problems particularly on disaster preparedness issues such as natural hazard risks, health, water and sanitation risks, food security, and other threats. Moreover, flood/landslide mitigation works in that region in general was not sufficient to protect lives and livelihoods of the communities.

In the given context, IFRC implemented an integrated community-based resilience project in the Koshi River basin since 1 June 2013 to 31 December 2016 and World Bank was one of the partners to support this. In addition to World Bank, Nepal Red Cross Society (NRCS) and IFRC worked in partnership with American Red Cross, Japanese Red Cross, Norwegian Red Cross, and Zurich Alliance for the project.

This project targeted a total of 25 vulnerable communities in 5 most vulnerable districts in the Koshi basin, with about 70,000 people benefitting. These districts included - Saptari, Sunsari, Udayapur, Khotang and Bhojpur. 2 Village Development Committees (VDC) were selected from each of these districts and 5 Wards were selected from each VDC. Thus, the overall geographic coverage of the project included 5 districts, ten VDCs and 25 Wards (also called Communities). Health, Water, Sanitation and Hygiene Promotion (WASH), Disaster Risk Reduction (DRR), livelihood, organizational development (OD) and capacity building were the major components of the programme carried out in areas that are at risk of different hazards.

As per the Vulnerability Capacity Assessment (VCA) report, in the flatland of Saptari and Sunsari, the risk associated with floods is noted. Additionally, these two districts have also identified the risks associated with wild fire, attack of wild animals, and drought. Other than the flood, hazards related to climate change is prominent in the hilly regions. According to the reports of the hilly regions of Bhojpur, Khotang, and Udayapur, Bhojpur faces the risk of drought, famine, and wild fire; while in Khotang, the risk is attributable to flood, landslide, attack of wild animals, flood and wild fire. Similarly, in Udayapur, the risks related to flood, attack of wild animals, snake bite and drought was widespread.

[2] http://en.wikipedia.org/wiki/Kosi_River

2.3 OBJECTIVES OF EVALUATION (FROM TOR)

As per the Terms of Reference (ToR) for the assignment, the objectives of the assignment were to:

I. Assess the extent to which interventions under the programme have achieved their results at outcome level in line with the baseline assessment report.

II. Determine the impact on communities in terms of nine minimum characteristics of a disaster resilient communities (as envisaged in flagship 4 of Nepal Risk Reduction Consortium).

III. Assess the capacity of the NRCS (particularly the district chapter levels) to follow up effectively and make recommendations on how this capacity can be further strengthened and sustained.

IV. Gather further recommendations from the communities on the next steps.

V. Assess the level of ownership taken by the communities after the handovers.

2.4 STRUCTURE OF THE EVALUATION REPORT

The **first chapter** of the report summarizes the disaster context and introduction to the project.

The **second chapter** discusses on the evaluation methodology: the data collection methods and tools, along with the limitation of the study.

The **third chapter** describes about the findings from the field based on 9 minimum characteristics.

The **fourth chapter** presents the analysis of the project intervention in terms of Development Assistance Committee (DAC) criteria.

The **fifth chapter** provides a conclusion, based on which recommendations are drawn.

3 CHAPTER 2: EVALUATION METHODOLOGY

3.1 EVALUATION TEAM AND RESPONSIBILITIES

The evaluation was led by a team leader supported by a team of researchers along with the staff of NRCS and American Red Cross (AmCross). The overall study was led by the team leader to assure quality. The involvement of team leader along with other researchers started from tools development. The researchers were oriented on the study objective, tools and ethical consideration to make field visits and collect data. After data collection, field findings were shared in the form of debriefing session. The findings were compiled to present in the report. The table below presents the responsibilities of the team leader, along with other study team members.

Title and Name	Responsibilities
Team Leader	• Managing and leading the project team. • Responsible for designing questionnaire • Responsible for designing checklists for KII and FGD. • Orient the researchers • Ensure timely implementation and planning as per the timeline and quality assurance of the work. • Preparation of report and final presentation.
Central level researchers	• Provides assistance to the Team Leader throughout the project. • Assist in tool development • Assist in debriefing session • Assist in data analysis and report writing.
Staff of NRCS and AmCross	• Provide support in report writing • Assist in data collating • District level coordination
Field researchers	• Conduct survey • Collect qualitative data (conduct interview and moderate FGDs) • Share field finings with the team leader

3.2 EVALUATION METHODS

The evaluation began with an initial consultative meeting with central level stakeholder, including IFRC and NRCS to gather background information on the project. Meetings were held with IFRC and NRCS to discuss and finalize on the tools that were used in the study. The team reviewed the secondary data for better understanding of the project and moreover, for tool development. The project documents, including logical framework, related reports and publication were reviewed prior to tools development in order to gain insights on the project and its modality. In particular, the following documents were reviewed:

- Project proposal documents - Proposal and log-frame
- Project baseline report
- Project Monitoring, Learning and Evaluation and (MLE) Plan
- Project reports
- Other reference documents such as NRCS CBDRR Guidelines, IFRC Framework for Evaluation, and other DRM and humanitarian standards
- 9 Minimum Characteristics Assessment Report

A central level orientation was provided to the researchers. The one-day orientation was conducted with the aim to explore on the objective of the project, and the key topics to be investigated, the research methods to be used, ethical consideration, and data recording.

The evaluation has used mixed method of data collection. The evaluation involved series of key informant interviews (KII) and focus group discussion (FGD). The study was supplemented by the survey with the household beneficiaries.

Furthermore, the study uses quasi-experimental design where non-intervention groups (wards where there was no intervention from Red Cross) were taken in case of quantitative data collection. The rationale behind taking non-intervention population is to understand the differences the project intervention has brought about in the targeted areas. The non-intervention group provided a basis for the study to understand, if the intervention had succeeded in increasing the knowledge as well bringing in changes in the action and behavior of the people in the intervention wards, in relation to 9 minimum characteristics.

3.2.1 Qualitative instruments

The qualitative tools were designed to capture the achievements of the project in terms of fulfilling its objective at outcome and output level. Moreover, the aim was to capture the community perspective on the project, and on the usefulness of the Nine Minimum Characteristics in helping the community to prepare for, respond to and recover from a disaster.

Focus Group Discussions

For the purpose of the evaluation, FGDs were carried out with Community Disaster Management Committees (CDMC), including active CDMCs, general community members, and representative of Early Warning Systems (EWS).

FGDs with CDMCs: Only one CDMC was selected per VDC to conduct a mixed group FGD with CDMC members.

FGD with general community members- women: 2 FGDs were conducted (one in hilly region in Bhojpur and another in Terai/inner Terai region Saptari and Udayapur.

FGD on EWS: One FGD was organized on Early Warning System

FGD on active CDMC: One FGD was organized with one of the most active CDMCs in Prakashpur, Sunsari.

Key Informant Interviews

KIIs included interviews with community leaders, stakeholders such DRR focal person, line agencies and Non-Governmental Organizations/International Non-Governmental Organizations (NGOs/INGOs) staff working in DRR and project staff/NRCS staff in the district.

At a central level, KII was held with project staff/NRCS/IFRC staff and Practical Action staff. The central level KIIs attempted to gather information on the programme modality and designing, along with the achievement of the project.

3.2.2 Quantitative instruments

Household survey questionnaire

Household (HH) survey questionnaire was developed to capture the extent of learning and understanding the project had brought among people in terms of preparedness, responsiveness and recovery, and moreover, to capture the extent to which the project succeeded to meet its objectives. The findings from quantitative data were used to supplement information gathered from qualitative means. The questionnaire also explored on the thematic areas concerning WASH, livelihood, health and Gender Equity and Social Inclusion (GESI).

The questionnaire was administered with the sample from non-intervention areas to acquire an understanding on the differences that could be identified between the intervention and non-intervention sites.

Sampling procedures for intervention population: The evaluation team, in particular the researchers visited all 10 VDCs of 5 project districts. The districts were categorized into regions - hilly districts and terai/inner terai districts. Considering the statistical significance, sampling size for each region, was calculated by using the following sample size calculation formula to ensure 90% confidence level with 5% margin of error.

$$n = \frac{Z^2 * (p) * (1-p)}{c^2}$$

Where,

n = sample size of households required for each region
Z = Z value for 90% confidence level
p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed)
c = confidence interval or precision, expressed as decimal

The sample size of minimum 169 households (141 from intervention and 28 from non-intervention) was determined to conduct the survey at 90% confidence level with statistical significance. Once the size of the sample for the region was obtained, the sample size was divided as per district based on the proportion number of targeted households.

Sampling procedures for non-intervention population: The number of non-intervention households in each region, district and VDC was determined ensuring that out of the total households to be surveyed, 83% are from intervention population and 17% are from non-intervention population from wards other than the intervention wards in the same VDC.

The overall sample sizes according to region, district and VDCs are given below:

Table 1: Sample size in different data collection methods

District / VDC	**HH surveyed**		**KIIs with Stakeholders**		**Qualitative**		
Quantitative Total	Intervention	Non-intervention	Male	Female	Male	Female	Total
Bhojpur	44	12	2	1	9	15	24
Khotang	21	5	2	1	16	11	27
Saptari	14	2	2	1	7	13	20
Sunsari	31	4	2	0	5	10	15
Udayapur	31	5	3	0	14	10	24
IFRC / NRCS / PA / Others	-		10	1	-	-	

Observation checklist

The research utilized observatory practices in 10 communities. The findings from the observation checklist were used to triangulated findings and information obtained from household survey and KII.

The key areas of observations included:

- Hazard and risk maps
- Search and rescue equipment
- First aid equipment/kit
- Food grain container
- Minutes of meetings
- Mitigation work
- VCA and DRM Plan documents
- EWS
- Safe locations for evacuations
- Complaint handling means/mechanisms, etc.

3.3 DATA COLLECTION, ETHICAL CONSIDERATIONS AND ANALYSIS PROCEDURES

The evaluation focused on a two-pronged approach for analysing the findings that included:

2.3.1. Analyzing information from primary and secondary sources to provide an end-line status against the indicators and in doing so, comparing the changes with the baseline figures

2.3.2. Analyzing information from the field and that provided by IFRC and NRCS to critically analyse relevance and appropriateness of the project and its coverage as well as effectiveness, efficiency, impact and sustainability

Quantitative data was collected via questionnaire on smart phones using ODK Collect Software which runs on an Open Data Kit (ODK) platform. The data were uploaded to the server on a daily basis.

Progress Inc. has maintained a set of uniform quality assurance standards for the evaluation. The team leader assured the quality throughout the study period. In terms of quality assurance particularly for this assignment, the following were assured:

- Researchers/Enumerators were be given in depth training and orientation;
- Random spot checks were made by the researchers to assure data collection quality of the enumerators;
- Data were uploaded daily and monitored in a regular interval of time;
- Data were securely stored in a password protected computer/server.

The HH survey results presented in this report are primarily descriptive in nature. The analysis of the survey data was conducted using Statistical Package for Social Sciences (SPSS) version 20.0. The original and final data, is provided along with this report for IFRC/NRCS references.

Upon completion of daily fieldwork, the findings from FGD and KII were analyzed and consolidated based on key points and quotes for each community. The field notes were prepared based on the defined themes that corresponded with the project indicators. The commonalities and differences for each of the themes were identified. The field notes were compiled and analyzed by the team.

Ethical Consideration

While conducting HH surveys, KIIs and FGDs, the code of ethics including informed consent, ethics of care, confidentiality and principle of no-harm to participants were strictly followed. Prior to the survey, interview or the FGDs, the purpose of the study, and the tentative duration of the study were explained to the participants. A consent form describing the study objectives, benefits and harm to the participant was included in the beginning of the questionnaire.

In addition, the participants were informed that no incentives would be provided for participation. Moreover, the potential participants could decline to participate and could withdraw their involvement or decline to answer any particular question/s during the research at any time. Oral consent was sought

from the participants before starting the data collection. Anonymity of the participants was maintained. The survey was conducted in a private space to ensure privacy and confidentiality.

The names of the respondents were coded during the main data collection to ensure confidentiality of the identity. All questionnaires contained a unique code.

3.4 EVALUATION CRITERIA USED

The evaluation was based on DAC criteria as well as IFRC Framework for Evaluations' criteria with focus on relevance, coverage, effectiveness, efficiency, sustainability and impact. The key questions guiding different evaluation criteria are:

Table 2: Evaluation criteria

Evaluation Criteria	Key Guiding Questions
Effectiveness	To what extent were the objectives/outcomes achieved? What were the major factors influencing the achievement or non-achievement of the objectives?
Efficiency	Were activities cost-efficient and achieved under stipulated budget? Were objectives achieved on time?
Impact	What has happened as a result of the project? What real difference has the activity made to the beneficiaries? To what degree did the intervention lead to the intended results? To what degree did the intervention lead to unintended consequences, positive or negative?
Relevance	To what degree is the support relevant in view of needs and priorities of the community? To what extent were the community involved in the assessment, planning, design, implementation, and monitoring of the interventions
Coverage	Did the interventions reach all the vulnerable groups in communities, including those in remote areas who would otherwise have not been addressed?
Sustainability	To what extent has the support contributed to the sustainability of project/programme objectives? To what extent will the benefits of a project continue after donor funding ceased?

3.4.1 Indicators measured

The evaluation intended to measure the targeted indicators from the programme log-frame. The overall goal of the programme was to reduce the exposure and vulnerability of the impact of disaster such as flood, landslide, and other hazards, including those due to climate change in the 25 target communities in the Koshi region. The programme has four key outcomes. Each outcome is associated with the number of outputs along with the indicators. This study has attempted to measure each of the indicators to gain sound understanding on the extent of achievement of the programme at outcome level. The study has established the endline figures against project indicators by collecting information through review of project documents, household survey, observations, FGDs and KIIs. The details on the indicators under each of the objective is presented in the **Annex II**.

2.5 Limitations

- At the time of the research there was a political unrest in Saptari district. This posed some challenge in the data collection process. The stakeholders were not available in the stipulated time, hence alternative representative on his behalf had to be interviewed.
- The duration of data collection was short.

4 CHAPTER 3: RESULTS AND FINDINGS

4.1 CHARACTERISTICS OF RESPONDENTS AND RESPONDENTS' HOUSEHOLDS

Characteristics of respondents and households are based on information collected through household survey. A total of 169 households were interviewed from within intervention and non-intervention communities (83% intervention, 17% non-intervention) from the five districts.

The following section presents the characteristic of the household in these five sites.

Table 3: Sample size for each district

	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Sample size-Intervention Areas	44	21	14	31	31	141
Sample size non-intervention Area	12	5	2	4	5	28

Position of the respondent in the Household: The head of the households dominated the proportion of the respondents with 55% of respondents of this category from intervention area. Table 2 below elaborates the proportion of respondents with different positions in their household.

Table 4: Position of the household

	Position in Household					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Head of Household	56.8%	61.9%	46.2%	45.2%	61.3%	55.0%
Spouse of Household	29.5%	33.3%	53.8%	25.8%	25.8%	30.7%
Just a Member of Household	13.6%	4.8%	0.0%	29.0%	12.9%	14.3%

Gender of the respondent: The survey had ensured proper representation of male and female members during the survey. Overall, there is a representation of 55% male and 45% female. The district wise disaggregated data is shown in Figure 1.

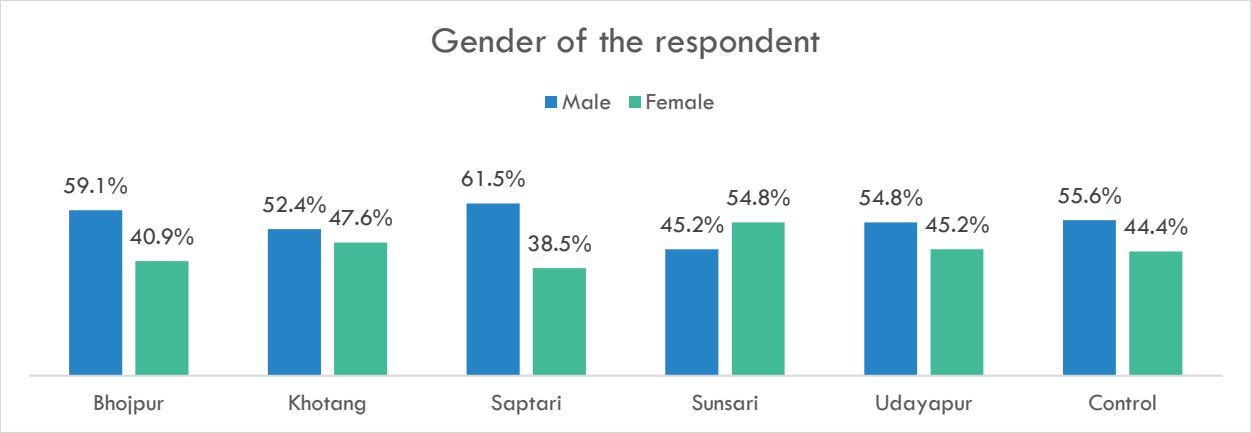

Figure 1: Gender of the respondents

Ethnicity of the respondents: Respondents of Dalit ethnic background represented nearly half of the respondents from intervention areas (46.4%). In Saptari and Sunsari, there was a high representation of indigenous groups[3] (84.6% in Saptari and 67.7%in Sunsari). Table 3 represents breakdown of the respondents according to ethnicity.

Table 5: Ethnic composition

Ethnicity of Respondents						
	Intervention					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Indigenous and Ethnic Group	22.7%	38.1%	84.6%	67.7%	29.0%	42.1%
Brahmin/Chhetri/Thakuri	11.4%	0.0%	7.7%	19.4%	3.2%	9.3%
Dalit	65.9%	61.9%	7.7%	6.5%	64.5%	46.4%
Other	0.0%	0.0%	0.0%	6.5%	3.2%	2.1%

Source of income: Agriculture was the main source of income as reported by 85.1% of respondents in intervention areas. Across all districts, more than three fourth of the households were engaged in agriculture. Terai, being the agrarian land and specifically, the grain store of Nepal, many households (HHs) relied on agriculture as a mainstay of income. There were around one fourth of the respondents from Sunsari and Bhojpur who depended on remittance for their living (27.3% of respondents from Bhojpur and 29% from Sunsari). These households (HHs) had at least one of the members migrated to a foreign land for the employment purpose. The detailed information on the income source of the respondents is presented on Table no. 6.

Table 6: Source of income

Source of income of the respondents						
	Treatment					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Agriculture	81.8%	95.2%	84.6%	77.4%	96.7%	85.1%
Business	20.5%	28.6%	15.4%	19.4%	10.0%	18.4%

Government/ public service	13.6%	14.3%	15.4%	16.1%	3.3%	12.1%
Remittance	27.3%	14.3%	7.7%	29.0%	16.7%	19.2%
Labor (skilled and unskilled)	9.1%	14.3%	30.8%	35.5%	10.0%	18.4%
Social security	2.3%	4.8%	0.0%	6.5%	3.3%	3.5%
Private service	4.5%	0.0%	0.0%	6.5%	3.3%	3.5%

On an average 2 members from the family were contributing to their household income source.

Food sufficiency: Overall, 59.3% of the respondents reported that they have access to sufficient food in intervention areas. The percentage of respondents reporting food sufficiency was highest in Bhojpur (93.2%), followed by Udayapur (58.1%), Sunsari (54.8%) and Saptari (53.8%). In Khotang, all the respondents claimed that they experience food insufficiency.

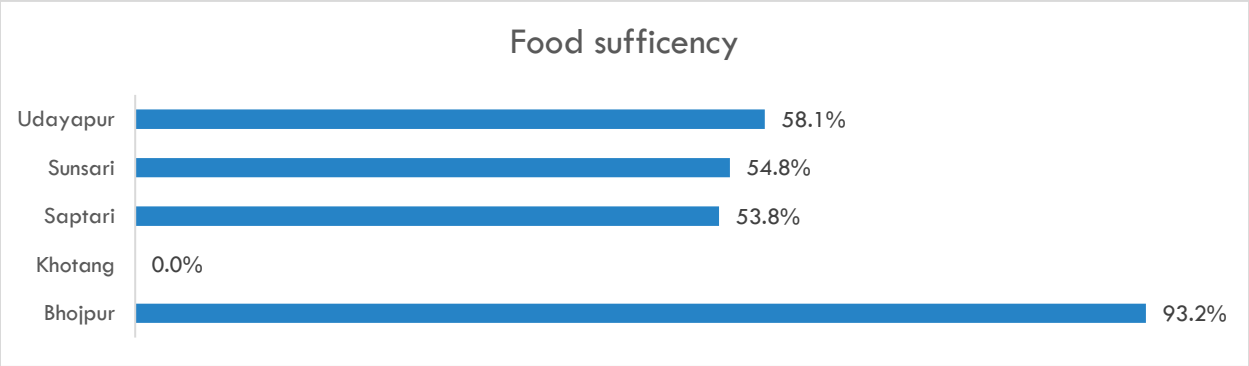

Figure 2: Food sufficient districts

A significant proportion of HHs were reported to be "food sufficient" for 4 to 6 months: 42.9% in Khotang, 19.4% in Sunsari, 15.4% in Saptari, 12.9% in Udaypur and 4.5% in Bhojpur. The percentage of households that experienced food insufficiency for 10-12 months was highest in Saptari (23.1%) and Udayapur (19.4%).

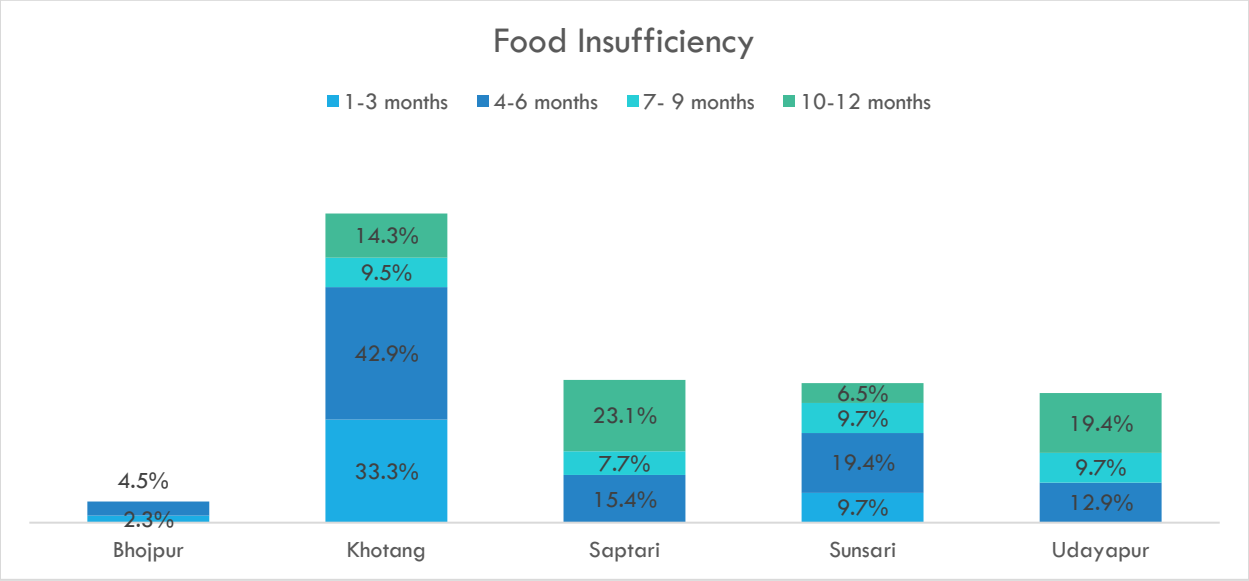

Figure 3: Duration of food insufficiency

It can be inferred from the data that Bhojpur was well-off in terms of food sufficiency and Khotang had to face the brunt of food insufficiency the most. Since Khotang is a hilly region, the soil is not as fertile and productive as in the Terai region. The production of major cash crops, like paddy is limited, therefore, HHs in Khotang face more food insufficiency as compared to other districts. As mentioned by the community groups in Khotang during FGD, HHs had to resort to market to buy staple food. There would be production of millet and barley, but majority of the HHs would eat rice as their staple food. Hence, the families bought rice from the market at the time when paddy production would not last all through the year.

Source of drinking water: Due to the fact that 3 of the 5 project districts were in the Terai region, tube well is found to be the most common source of water for domestic consumption with 50% of the respondents reporting tube well as the key source. It was only in the hilly areas where households had access to public piped water system with 97.7% reporting this as the key source. Following table elaborates access of respondents to different water sources in intervention areas.

Table 7: Key source of drinking water

Key source of water for domestic consumption (drinking, hygiene, cooking)						
	Bhojpur	**Khotang**	**Saptari**	**Sunsari**	**Udayapur**	**Total**
Public Water System	97.7%	57.1%	0.0%	0.0%	0.0%	39.3%
Private Well	0.0%	42.9%	0.0%	0.0%	6.5%	7.9%
Public Well	0.0%	0.0%	0.0%	0.0%	6.5%	1.4%
Rainwater	2.3%	0.0%	0.0%	0.0%	0.0%	.7%
Tube Well	0.0%	0.0%	100.0%	96.8%	87.1%	50.0%
Others	0.0%	0.0%	0.0%	3.2%	0.0%	.7%

In comparing the sources of drinking water with the baseline, it shows that while 38% of the respondents used private well as a main source of domestic water during baseline, the figure has gone down to 7.9% in evaluation. The proportion of HHs that use tube well has increased to 50% from 32.1%. Positively, the percentage of HHs that use river creeks and ponds have gone down to 0% from 1.3%. Following table compares the sources of water during baseline and at the time of the final evaluation.

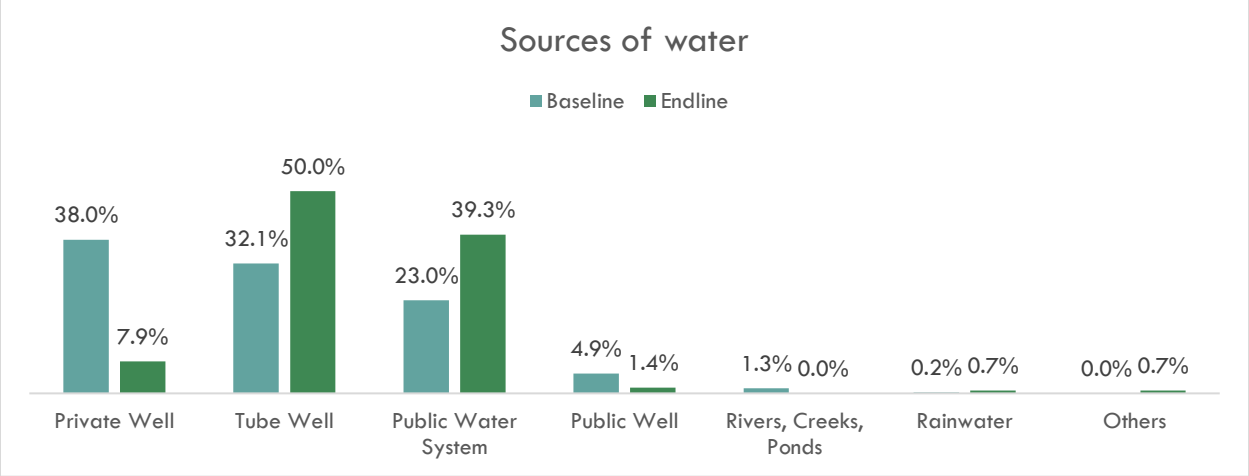

Figure 4: Sources of water

In assessing the change in people's access to protected source of water, it has slightly increased from baseline, since there has been decrease in the percentage of people who depended on unprotected

sources like river, creeks and ponds for water. The message disseminated on access to safe and clean drinking water can be attributed to the improvement in the status of consumption of clean drinking water. Across all the communities, the WASH response teams were responsible in relaying messages and spreading awareness about the access and need for clean and safe drinking water. The community level government also acknowledged the effort put forth by Red Cross in sensitizing people about the benefits of healthy WASH practice.

To add up to the safety measure for drinking water, almost all respondents (90.5%) covered their water vessel for drinking water. In Sunsari there were 12.9% respondents who said they do not cover the water vessel, while the figure was only 7.7% in Saptari and 6.5% in Udayapur.

The proportion of respondents who covered the water vessel has increased significantly from 34.2% in baseline to 95% in evaluation, thanks to sensitization on sanitation and hygiene awareness as revealed during FGDs.

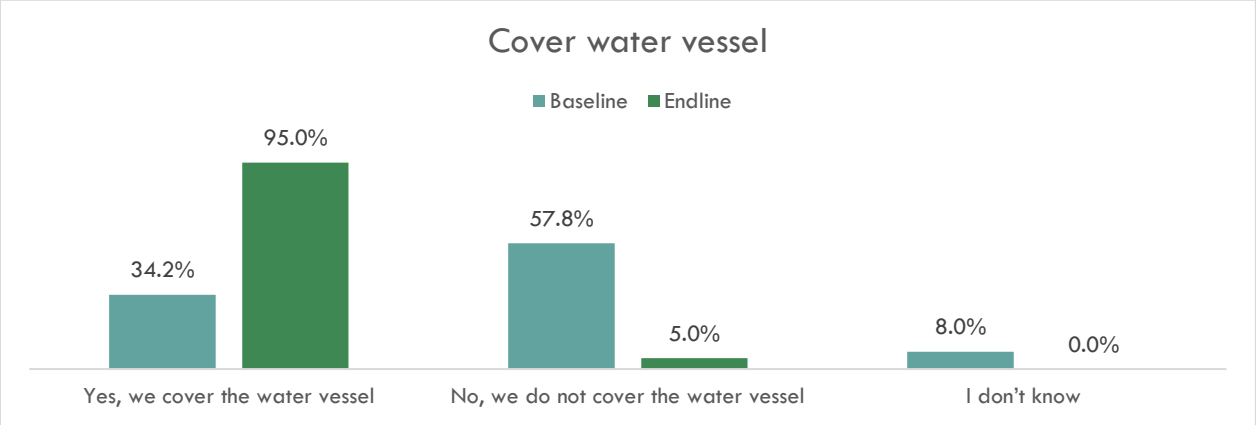

Figure 5: Covering water vessel (compared to baseline)

Defecation Areas: All the study reported that they defecate in private toilet. In comparison with the baseline, the use of private toilet has been the most striking change. All respondents used private toilets at the time of evaluation, while the figure was only 45.3% during the baseline. Following figure provides a comparative situation in terms of different options of defecation between the baseline and evaluation.

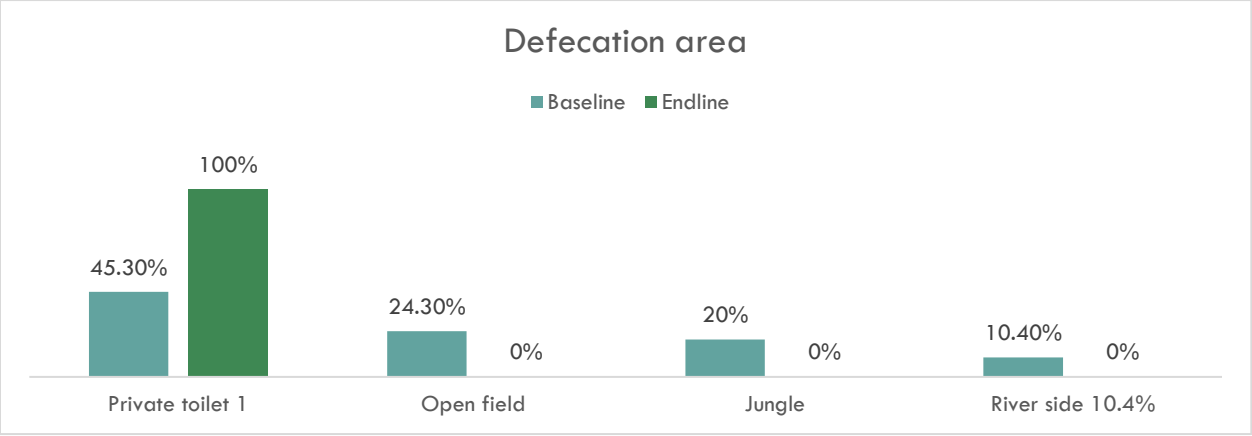

Figure 6: Defecation area (compared to baseline)

In Bhojpur and Khotang, all respondents used flush/pour latrine, while there were 76.9% in Saptari, 71% in Sunsari and 80.6% in Udayapur. The remaining respondents used simple pit latrine. In the non-intervention

sites 84.6% used flush/pour latrine. Table no. 8 presents the proportion of respondents using different types of latrines in different locations.

Table 8: Type of latrine

Type of latrine used by respondents							
	Treatment						Control
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total	Control
Flush/Pour Latrine	100.0%	100.0%	76.9%	71.0%	80.6%	87.1%	84.6%
Simple Pit Latrine (Khalde)	0.0%	0.0%	23.1%	29.0%	19.4%	12.9%	15.4%

Compared to the baseline, the respondents who used flush or pour toilet has increased from 31.6% in baseline to 87.1% in evaluation. Many NGOs and INGOs, along with the government have been working in the field in promoting WASH practice. People are sensitized about the benefits of using improved sanitation facilities. Asserted by the key informants and focus group participants, the reason for this significant improvement can be attributed to the integrated efforts from the government and other non-governmental organizations.

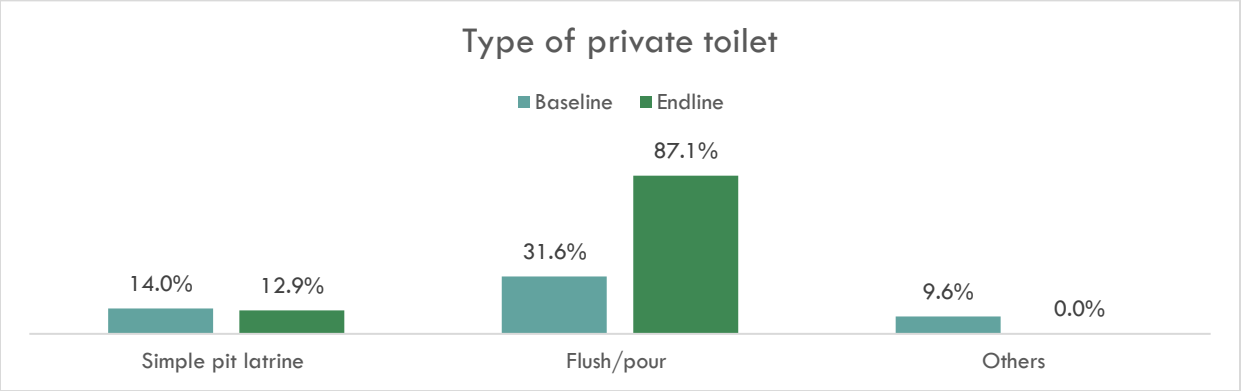

Figure 7: Type of latrine (compared to baseline)

In baseline, there were 70.8% of the respondents who washed their hands with soap and water while toward evaluation all the respondents washed hands with soap and water.

WASH in Koshi CBDRR

WASH was one of the major components of the programme. The aforementioned results demonstrated a positive outcome from the sector. As compared to the baseline, the intervention communities have advanced to a position where families have adopted good practices related to access to drinking water, use of latrine, and hand washing measures.

Findings from the focus group discussions and key informant interview point to the fact that WASH as a major theme was a priority for many governmental and non-governmental organizations. It is evident from the data from the survey and qualitative findings that the project activities concerning WASH has been effective in sensitizing people on the good practices.

4.1.1 Comparison with non-intervention communities

In regarding to WASH practices, the intervention area fared better than the non-intervention areas. Firstly, the access to protective water sources was higher in intervention communities. The major reason for this discrepancy was attributable to the awareness messages that the non-intervention communities did not receive. In this context, one of the woman focus group participants stated that they did not know that drinking water from unprotected sources like uncovered spring would cause diseases.

Similarly, on comparing the date with the non-intervention communities, there were 18.5% of the households in non-intervention sites who said that they did not cover the water vessel that contains drinking water while only 5% of the sampled HHs in intervention communities did so. In exploring the reason for drinking water from uncovered lid, most of the focus group participants said that they were not aware of the need to cover water vessel. In the same context, the members of CDMC in Sunsari and Saptari stated that Nepal Red Cross disseminates information on the need to drink safe water for health reasons.

"Drinking unsafe water will cause illness, like diarrhea and dysentery. It affects the children the most. We learnt this through the Red Cross."- Woman, Focus Group Participant, Saptari

Other than the message on covering the water vessel by a lid, messaging on washing hands with soap and water has also been disseminated. According to the HH survey respondents, the communities learned about benefits and the need to wash their hands using soap and water. As explained by the CDMC members in focus group discussion in Khotang and Udayapur, people washed their hands only with water without the use of soap, however, after effective messaging from Red Cross, they adopted a healthy habit of washing with soap. In the non-intervention areas, however, there were still 7.4% of the respondents who washed their hands with ash and water. Although the message on washing hands with soap and water was communicated by many NGOs and INGOs working in the WASH sector, these respondents from non-intervention areas had not internalized the message. According to one of the respondents who washed his hands with ash and water it was the poor economic condition that barred them from buying soap for hand-washing.

4.2 FINDINGS BASED ON 9 MINIMUM CHARACTERISTICS

As evidenced by the baseline report, the communities at the time of baseline were not prepared for the disaster. The level of awareness on DRR and DRM was nominal. Results from baseline show that 58.6% of the HH survey respondents were unprepared at the time of baseline. More than 90% had not taken any steps to prepare themselves against disaster, since they were not aware of what steps to take. Some HHs, had information on the risks associated with disaster, mostly relying on the informal sources (friends and families). It was apparent that there weren't many NGOs and INGOs working on the field of disaster preparedness, hence only 2% of the HH respondents had received information via NGOs and INGOs.

Similarly, the concept of EWS was unknown to many. More than 90% were unaware of it and the remaining relied on the traditional measures of forecasting disaster. In these communities, safe places and safe routes had not been identified at the time of baseline; less than 5 % of the HH respondents knew of safe places and routes.

The situation is different at the endline. More number of HHs are prepared in case of future disaster. This can be attributable to the fact that the message dissemination was higher in the three years, with maximum coverage of the community. Similarly, a disproportionate percentage of people are aware of safe routes and safe places.

This section primarily focuses on the achievement of the project activities in relation to 9 minimum characteristics. It presents the findings obtained from the survey that has been triangulated and supported through the qualitative methods, including interviews with CDMC representative, focus group with CDMC members and different response teams.

Hazard Profile of the Study Sites

As evidenced in the HH survey, flood was identified as the major hazard in the Terai areas of Saptari, Sunsari and Udayapur, while landslide was identified as a major hazard in Khotang and Bhojpur. Survey from the respondents gathered information on the key hazards identified by the community presented in Table no. 9 below.

Table 9: Key hazard identified by the HH in the community

Key hazard identified by the respondent					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Landslide	100.0%	100.0%	7.7%	6.5%	3.2%
Flood	4.5%	61.9%	100.0%	93.5%	100.0%
Fire	95.5%	61.9%	69.2%	67.7%	35.5%
Drought	63.6%	19.0%	7.7%	6.5%	12.9%
Earthquake	50.0%	95.2%	0.0%	3.2%	0.0%
Thunderstorm	13.6%	0.0%	0.0%	3.2%	3.2%
Windstorm	70.5%	66.7%	53.8%	35.5%	67.7%
Other	0.0%	0.0%	0.0%	3.2%	3.2%
Epidemic	2.3%	0.0%	0.0%	3.2%	0.0%
Snake bite	0.0%	0.0%	46.2%	90.3%	90.3%
Animal attack	0.0%	61.9%	76.9%	90.3%	80.6%

As illustrated in table no. 9, all respondents from Khotang and Bhojpur cited landslide as a key hazard, followed by fire (95.5% respondents from Bhojpur and 61.9% from Khotang). In case of Saptari, Sunsari and Udayapur, flood was identified as a key hazard. This was again followed by fire in case of Saptari and Sunsari, where 69.2% from Saptari, and 67.7% from Sunsari mentioned fire as a key hazard. In case of Udaypur, Bhojpur and Khotang, windstorm was also identified as one of the key hazards, while earthquake was identified as a key hazard by 95.2% of respondents from Khotang and 50% respondents from Bhojpur.

4.2.1 Organizational base at Village Development Committee (VDC) / ward and community level

All project interventions communities were found to have Disaster Management Committees (DMC), both at the VDC and the community level, developed in line with Local Disaster Management Planning Guidelines. Across all districts, these DMCs were engaged in taking measures in preventing possible disaster, hence contributing in making the community disaster resilient. Each of these CDMCs implemented in reducing vulnerabilities and enhancing capacities of the communities as identified by VCA exercises. For example, CDMCs in Bhojpur were found to work not only for the DRR initiative, but also in components of WASH and GESI.

The DMCs were engaged in designing and developing the Disaster Risk Management (DRM) plans. Based on discussions with CDMCs, it was reported that key roles of CDMCs were to identify the vulnerable groups and sites in the community and work towards enabling these people and places to be able to face disaster. They also played a role of mediator between Nepal Red Cross and local people during the project implementation. In Sunsari and Saptari, CDMCs mentioned how they required to coordinate activities and programs like blood donation program, relief work and first aid, and to cooperate with women's' group and community for meetings and information sharing, and to manage emergency fund.

The LDRMP guidelines state that the CDMC should meet on a monthly basis, and such was identified in the study sites. Across all districts, CDMCs met at least once a month and sometimes more, in situations and circumstances that required meeting frequently. In Terai districts, the committees were more active, prior to monsoon season in preparation for the seasonal floods. The meetings took place with an objective to discuss about the potential way of prevention and mitigation measures to secure the community from monsoon flood.

CDMC members were largely selected based on how active they were in the community and their level of knowledge on disasters and disaster management. The involvement of vulnerable and marginalized groups in CDMC was noted across all study sites. The committees had ensured equal representation of male and female members. Moreover, there was representation and inclusion of people from different ethnic backgrounds. A high level of female participation in the CDMCs was reported in Saptari and Sunsari. People with disability (PwD) were also given special preference in being the member of CDMC. The reason attributable for this high participation was that NGOs were actively encouraging female participation in CDMCs, reflecting their inclusive approach to CBDRR. Furthermore, the political agenda to make an initiative inclusive in terms of gender and ethnicity is rooted in the development practices, and DRR is no exception.

4.2.2 Access to Disaster Risk Reduction (DRR) information

CDMCs were responsible for disseminating information about of the potential dangers of hazard. In Saptari, Sunsari and Udayapur, flood EWSs had been established. Focus group participants showed good awareness and understanding of the communication and response protocols, e.g. what different sirens mean and how they should respond. In case of disaster, the community knew whom to contact. Additionally, mock drills were conducted as an annual event where participation are reportedly high. People generally communicated with the CDMC and EWS team during such disasters. It was also stressed that information about flood hazard was gathered by the communities themselves through their own monitoring of river levels and changes in the flow and colour of the river, as they have traditionally done.

***"*Before the CDMC, there was no formal source of information about floods."- Focus Group participant, Sunsari**

A lot of awareness raising activities were conducted focusing on the ways to prepare for disasters, e.g. securing belongings, preparing dried food, identifying safe spaces, and how to reduce the risk of health hazards after a flood, e.g. boiling drinking water. Awareness activities not only focused on sensitizing people about the direct impact of the disaster and the possible mitigation measures, but also focused on WASH component e.g. use of toilet for defecation, access to clean and safe drinking water, hand washing technique etc. Awareness raising also focused on how to reduce the risk of fire during the dry season. A range of communication channels were used, including radio jingles, hoarding boards, displaying hazard maps etc. Through the awareness raising information on precautionary techniques regarding the risk were shared.

As a part of project initiative, radio messages and jingles were one of the means of disseminating information of DRM. This was validated by the more than three fourth respondents citing that respondents they had listened to DRM messages on radio. It should be noted that different groups (such as youth, housewives, students etc.) were consulted before airing the radio programme to find out appropriate time for the targeted group. However, some adjustment in the timing was made based on the availability of the time slots in the radio stations., **It is important for the Red Cross to conduct a listener survey before radio messages are disseminated** so that targeted messages are aired at appropriate time to offer more effective messaging.

Most of the community people across all study sites listened to radio to get information. More than half of the respondents across all districts also relied on the community meetings for information. Other than that, they received information from friends and families and NGO representatives. In Udayapur, over one-third, precisely 35.5% of the respondents reported that they received information through television. Table no. 10 represents the proportion of households reporting different sources of media for getting information on disaster or emergency situations.

Table 10: Different sources of media for information on disaster

How do you receive information about disaster?					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Radio	84.1%	61.9%	84.6%	54.8%	58.1%
Family and friends	70.5%	71.4%	23.1%	25.8%	22.6%
NGO/INGOs representative	61.4%	14.3%	7.7%	29.0%	9.7%
Community meetings	54.5%	61.9%	46.2%	67.7%	67.7%
Television	43.2%	19.0%	23.1%	22.6%	35.5%
Newspaper	9.1%	9.5%	7.7%	3.2%	6.5%
Internet	9.1%	14.3%	0.0%	0.0%	6.5%

In evaluation, it didn't come out clearly that there were different means and medium for disseminating messages and information on DRR for the people with special needs, especially physically disabled population. For example, a jingle aired on radio would not address the need of people with hearing impairment. **Social mobilization should take into account of such barriers and use tailored approaches to disseminate relevant DRR information**.

4.2.3 Multi-hazard risk and capacity assessments

The VCA involved identification of hazards faced by the community, vulnerable places and vulnerable groups from the perspective of the community people themselves. Through VCA, communities were aware about potential disasters such as landslide, flood, fire, attack and terror of the wild beasts, earthquake etc. Other than that, the issues and problems faced by the community people in general and the activities that could be introduced to increase the resilience of the community were also identified. In this context, focus group participants from Sunsari, and Saptari mentioned how VCA helped community to identify livelihood trainings like sewing and noodle making as vital in improving lives of people. These trainings were provided to the ones who were deemed vulnerable during the VCA exercise. VCA exercise was deemed significant in identifying the problems and risks associated in the community. This was supported by the respondents (77.9%) who reported that the risks they faced were a part of VCA exercise. All respondents from Saptari asserted that the risked identified by the community were included in the VCA findings, while more than three fourth (77.9%) of the respondents from all districts asserted the same. It is evident from findings from the survey that the real risks faced by the community were identified in the VCA exercise as well. It further shows how community are aware of the results from the VCA exercise, thereby claiming that the real risk faced by them have been incorporated in the VCA exercise.

Table 11: Disaster Risk as a part of VCA exercise

Disaster risks as a part of VCA exercise						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Yes	75.0%	71.4%	100.0%	77.4%	77.4%	77.9%
No	0.0%	19.0%	0.0%	6.5%	9.7%	6.4%
I don't know	25.0%	9.5%	0.0%	16.1%	12.9%	15.7%

The VCA process involved high level of community participation. The assessment was led by Red Cross and involved CDMC members, community leaders and other members of the community. From all study districts, members of CDMCs had acquired training on carrying out VCA exercise. The numbers of trainees

varied across districts. The participatory VCA process was able to contribute to risk informed communities on a range of hazards that could affect the community and measures for preparedness. People from all ethnicities (including Dalits), gender and PwD equally participated in VCA exercise. During the community discussions, it was shared by the community members that disaster risks in school also were assessed in VCA. The VCA exercises have assisted in identifying vulnerable beneficiaries and communities and the exercise itself has been an empowering tool as the participation and representation from all ethnicities, including minorities, gender and disability were sought. The communities had realized what increases vulnerability and what capacities they already have and what needs to be further done to reduce disaster risks.

The community was aware of the VCA exercise that had been carried out and hence, they could easily access the information or result gathered from the exercise via maps that were displayed in the community. In this regard, 100% respondents from Saptari and 93.2% in Bhojpur assured that they had seen the maps in the community, while the figure was 87.1% in Sunsari, 80.6% in Udayapur and 81% in Khotang. It was, however, unclear if the communities saw value in the VCA exercise. Their knowledge was merely limited to understanding the identification of vulnerable groups and sites and lacked understanding the extent to which the assessments informed the DRR plans. This signals a situation where **people lacked information on the rationale behind carrying out VCA exercise to develop DRM plans**. Only a small percentage of people were trained on VCA as shown in Figure 8. Moreover, **sharing from these trainees to other community members was nominal**. Mostly, the response teams used the mapping in the event of flood.

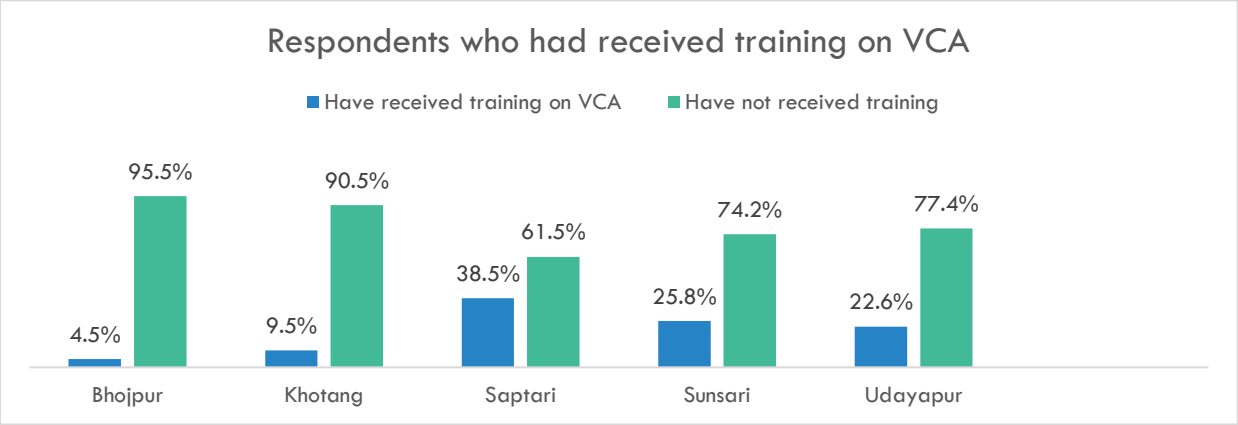

Figure 8: Respondents who had received training on VCA

4.2.4 Community preparedness / response teams

Different response teams were formed under CDMCs. Search and rescue, early warning systems and first aid teams had been formed in Saptari, Sunsari and Udayapur, while early warning system teams were not present in Bhojpur and Khotang. This is because of the initiative of flood EWS only in the 3 districts. These teams were responsible in coordinating activities, giving early warning through EWS for safety and protection, and to raise awareness and assist the community members during disaster. There were also some examples of additional preparedness and response teams being formed. These teams worked for sensitizing community about the preparedness measures, not only relating directly to DRR, but to health and sanitation. For example, team of volunteers were established with the responsibility of door-to-door information sharing and awareness-raising, which was proving effective in terms of coverage and reach.

"The WASH team has been very instrumental in spreading awareness about the dangers of drinking contaminated water. The community learned to close the lid of the vessel of drinking water. Similarly, the team sensitized about health hazards associated with open defecation etc."- Focus group participant in Khotang

In a focus group discussion with the CDMC member in Bhojpur, they mentioned that there were three different response teams for preparedness, response and sanitation and hygiene. Although, all response teams were assumed to carry out their own responsibilities concerning their respective sector, be it WASH, GESI or health, any one of the sector cannot be viewed in isolation. It was stressed how it is imperative for all the sectors to work collaboratively.

"The responsibilities of all the task forces was interlinked. Although they have had to carry out their own duties and responsibilities, the duties of one is connected to the duties of the other." – CDMC representative, Bhojpur

These community response team had received the training on basic CBDRR, first aid, EWS, simulation training, vocational training, leadership development training, depending on the type of responses and tasks they were assigned in. The response teams were voluntary in nature. There are two sides of responses regarding the voluntary nature. The willingness of the people to join response team ensured sustainability given that only the ones attracted by volunteerism joined the groups. On the other side, although not significant, some of the response team members explicitly mentioned in the FGDs that the nature of volunteerism demotivated some members as they saw no incentive to contribute for a long period of time.

There was a high involvement of community people in response team as evidenced by the findings that show that more than half of the respondents/ member of the households of respondents from all districts, apart from Saptari were a member of response teams.

Table 12: Member of a response team

Are you or a member of your family a member of a response team?					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Member of community response team	61.4%	66.7%	100.0%	67.7%	67.7%
Not a member of community response team	36.4%	33.3%	0.0%	29.0%	29.0%
Don't know	2.3%	0.0%	0.0%	3.2%	3.2%

Nonetheless, **retention of the members of response teams was identified as a problem in all study communities**. Many trained members migrated outside for employment that left the position vacant. Few female response team members also stepped down as they were getting married. The representatives of response team opined that they would require follow-up training and post-training support to retain the members.

4.2.5 Disaster Risk Management Plans

All the study sites had formulated ward-level CDMC plans in accordance with the LDRMP guidelines. Red Cross often led the process working with the CDMC. CDMC members, political parties, and VDMC etc. were involved in developing the DRM plan. From the focus group, it was highlighted how it was often only the people directly involved in the plan that were aware of its existence and content. The wider community remained unclear as to how the plan had been developed but had an understanding about the contents of the plan. As highlighted in the previous section, people were unaware of how the VCA exercise informs DRM plan. But people were aware about the existence of DRM plan. This level of awareness among community members was high given that 92.1% of the respondents from the study sites were aware that there were DRM plans in their community. All respondents from Saptari were aware of it, while 87.1% from Sunsari and Udayapur were aware of it as shown in Table 13. **These people, however, lacked information on the content of the plan signaling a poor information sharing mechanism where only the ones who were directly involved in making the plans had knowledge about the content.**

Table 13: Awareness of DRM plan

Awareness about DRM plans						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Aware of DRM plans	97.7%	90.5%	100.0%	87.1%	87.1%	92.1%
Not aware of DRM plans	0.0%	9.5%	0.0%	9.7%	9.7%	5.7%
Don't Know	2.3%	0.0%	0.0%	3.2%	3.2%	2.1%

The members of CDMCs asserted that the plans would be simulated annually. This was supported by 68.6% of the respondents from intervention sites who had partaken in the simulation activities.

Table 14: Participated in simulation of DRM Plan

HHs participated in simulation of DRM plan						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Participated in simulation of plan	65.9%	52.4%	100.0%	77.4%	61.3%	68.6%
Not participated in simulation of plan	27.3%	38.1%	0.0%	3.2%	25.8%	20.7%
Don't know	6.8%	9.5%	0.0%	19.4%	12.9%	10.7%

According to community members who participated in FGDs, DRM plan was developed to prevent hazards and effects of natural disasters. The DRM plans contributed to ensure the protection of people's lives and property. The issues in community DRM plan were embedded within the VDC DRM plan. There is a collaborative effort in the planning and implementation of the program. VDC council endorses the DRM plan by having a collaborative effort with the CDMC member and the parties involved.

The activities and actions identified in the ward-level DRR/M plans included mock drills, awareness raising activities and training of response teams. However, with limited resources and funding, it was difficult for the CDMC to implement activities outlined in the plan. The allocation of DRR fund through VDC was not adequate to implement activities enlisted in the plan. Furthermore, there was a collection of emergency fund by the contribution of community people, but it was merely considered and secured as a fund for emergency purpose, rather than for implementing DRR plans or other preparedness activities.

In case of Udayapur, the focus group participants shared how DRM plan was implemented in the community during flood in the community. The first aid team was active and CDMC distributed food and provided shelter to the victims. The roles and responsibilities of the response teams was clear and well-internalize by the team, resulting in the immediate action in case of flood. Similarly, in case of Sunsari, the community DRM plan was implemented. The community level DRM plan had provisions to form different response teams as mentioned above.

The focus group participants of CDMC highlighted that local government supported in the development and implementation of plans. In Saptari, Sunsari and Udaypur, the support received from the VDC secretaries was acknowledged. In case of Khotang, dialogues were held with VDC officials through workshop for DRR plan and raising emergency fund.

"Coordination among different stakeholders was the key aspects for the successful completion of the project." – Focus group participant, Bhojpur

4.2.6 Disaster Risk Reduction (DRR) Funds

At the VDC and municipal levels, there were sources of DRR funding available as development budget. The VDCs and municipalities allocate 5% of their development budget to DRR as per the government mandate. Community members involved in the study also had a sound knowledge of the DRR funds held by the LDMC at the VDC or municipal level, and the 5% development budget allocated to support DRR activities.

According to the local government officials and communities, the amount allocated for DRR is not adequate to implement activities that would work on managing disasters. These stakeholders opined that to mainstreaming DRR in development priorities is quintessential and more budget should be allocated for the same.

"**There is so much budget in education and infrastructural development, why is it that an important area like DRR is only allocated 5% of the total budget." – Focus group participant, Khotang**

Similarly, separate emergency funds had been established in all study communities. Red Cross had provided a seed amount of NPR 10,000. In some communities, CDMCs collected emergency fund from the households. In case of Bhojpur, every household donated some amount of money and those who were incapable of donating money provided grain support. The emergency funds relied largely on collections from the households, the amount ranging between NPR 5 and NPR 50 per household per month. In case of Sunsari and Saptari, the CDMC collected fund through donation of crops known as '*Mutthi Dan'* as per the capacity of the people. The fund would be used in only case of emergency with the endorsement from the CDMC. In case of Udayapur, the cash collected through '*Mutthi Dan'* would be sold to acquire money for the fund. In Khotang, CDMC member shared how they accumulated fund by carrying out different cultural activities, like '*deuso bhailo'* programme during Tihar. For the mobilization of money, there is a prevalence of 'Dhikuri' system in Terai where member rotate fund at 2% interest rate. Other than that, in all communities, the emergency funds were used to provide loans to householders at low rates of interest.

Guidelines were prepared by the CDMCs outlining how the emergency fund could be used. The emergency fund is meant for emergency purpose unless agreed otherwise between CDMC and local government. The participants had good knowledge of the funds available at the community level and how they could be accessed. This is supported by more than three fourth (87.9%) of the respondents who claimed that they had knowledge about access to emergency fund. All respondents in Saptari had knowledge about access to emergency fund in case of disaster, possibly because of more intense work for increasing the fund and using the same frequently; the percentage was lower in Sunsari with 77.4% claiming the same. In other districts, the figures were 88.6% in Bhojpur, 81% in Khotang and 96.8% in Udayapur.

Table 15: Access to emergency funds

Can you access the emergency fund in case of disaster?					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Access to emergency fund	88.6%	81.0%	100.0%	77.4%	96.8%
No access to emergency fund	2.3%	14.3%	0.0%	3.2%	3.2%
Don't know	9.1%	4.8%	0.0%	19.4%	0.0%

While emergency funds exist, the replenishment of the depleted fund was not ensured. In case of usage of the accumulated fund, there was no concrete means to replenish the fund, given that the seed money was expended. In this regard, the need for income generating activities was stressed by members of CDMCs during FGDs. The support would not only make the communities contribute to the fund, but also the underlying problem of poverty experienced by the vulnerable communities would be addressed, making communities able to bounce back even from seasonal disasters. It was stressed in FGDs that resilience is directly linked to livelihood- preparedness is directly linked to better livelihood. Awareness in isolation will not contribute to preparedness. Without a good livelihood option, people will only fall in a vicious cycle of vulnerability and unpreparedness.

"We know the significant of emergency fund, but how can we contribute to it when we are living in a hand-to-mouth situation with nothing to spare." – Woman during focus group, Saptari

"We need a livelihood support to earn income. Only better livelihood enables us to bounce back in case of shocks during disaster or emergency situation." - CDMC member, Khotang

Inadequacy of funds was cited as a challenge in implementing the activities planned in DRR plans in Khotang district. Whilst in Udayapur, the procedural hassle related to sanctioning fund for utilization was a deemed as a lengthy process and somehow ineffective to quickly respond in case of disaster.

The evaluation recommends that **it is important to diversify the funding sources to increase the emergency fund**, through community based institutions (e.g. Saving groups), natural resource management groups (e.g. Community Forest User Group), local NGOs and government line agencies.

4.2.7 Access to community-managed resources

Community has maintained search and rescue, first aid and early warning equipment. Standard operating procedures (SOPs) for proper management of the equipment were in place. All the study communities had access to material resources for DRR which had been provided by Red Cross, including life jackets, rubber tubes for water rescue, stretchers, and first aid kits. In case of Sunsari and Udayapur, the Community Forest User Group (CFUG) had provided the wood and fodder for the community. Also, NGO programmes like Sabal and Poverty Alleviation provided resources in Bhojpur. This could be corroborated with data that 87.1% of respondents reported to have access to resources and materials. All respondents from Saptari and Sunsari said that they can access the resources and materials required at the time of disaster, while only one third of the respondents (33%) from Khotang said that they can access the same. The figure was 34.6% in non-intervention sites. The figures are suggestive that the knowledge of resources essential during disaster is low in Khotang district. Table no. 16 elaborates the proportion of respondents who report that they can access resources and materials available in their community.

Table 16: Access to resources and materials

Can you access the resources and materials like life jacket of the community?						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Access to resources and materials	93.2%	33.3%	100.0%	100.0%	96.8%	87.1%
No access to resources and materials	0.0%	57.1%	0.0%	0.0%	3.2%	9.3%
Don't know	6.8%	9.5%	0.0%	0.0%	0.0%	3.6%

Similarly, a significant portion (89.3%) of respondents in intervention areas had access to first aid kit. In the majority of cases, the resources were kept with the CDMC offices. The community were aware of the availability and access to resources. In all communities, people were aware of whom to contact in case of emergency or other information related to disaster. Community asserted chairperson of CDMC as their focal person for communication. Figure 9 elaborates proportion of respondents in different districts who report that they have access to first aid kit.

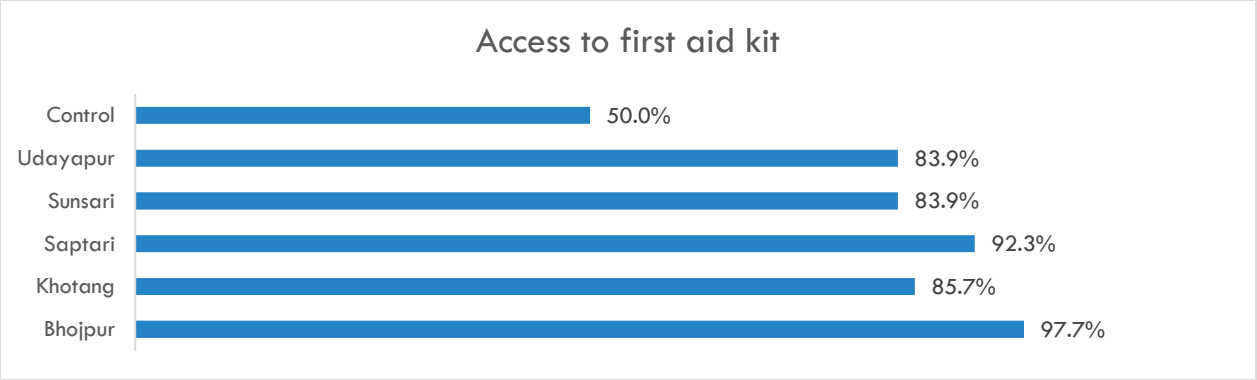

Figure 9: Access to first aid kit

However, overall, resources were found to be limited and inadequate as reported by the community members. There was no evidence in any communities of using the DRR funds to purchase additional resources. It was stressed by the focus group participants that the fund would not suffice the operational cost of the wear and tear of the materials.

4.2.8 Local level risk / vulnerability reduction measures

Different structural and non-structural mitigation measures were adopted by the communities. Small mitigation activities such as widening of road, culvert construction, tree plantation and temporary bridge constructions have been carried out in most of the project communities. There were examples of communities where culverts were constructed to reduce the risk of floods, and rural roads being improved for development purposes but also serving as evacuation routes. On a larger scale, community mentioned about the government-funded embankment projects in Saptari. In Saptari, the communities felt that the embankment had been effective at reducing the flood risk.

Safe areas along with the evacuation routes were identified for the safety of people and the livestock with a significant number of community members being aware of it. All respondents from Saptari, 95.5% from Bhojpur and 93.5% from Sunsari were aware of the safe location. The figures were 85.7% in Khotang and 90.3% in Udayapur. Similarly, all respondents from Saptari were aware of the evacuation route to follow. Information of safer places, routes was disseminated to the community people through meetings, announcements and mock drills. Although many respondents were aware of the safe location and the evacuation route, it was only in Saptari and Udayapur that majority of the respondents claimed that the information has been used at the time of disaster in the past three years.

The following table presents the proportion of respondents in different districts with knowledge on safe location and evacuation routes.

Table 17: Awareness on safe places and routes

Knowledge on safe location where community members can be evacuated						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Yes	95.5%	85.7%	100.0%	93.5%	90.3%	92.9%
No	4.5%	14.3%	0.0%	6.5%	9.7%	7.1%
Knowledge on safe evacuation routes						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total
Yes	95.5%	85.7%	100.0%	77.4%	90.3%	89.3%
No	4.5%	14.3%	0.0%	22.6%	9.7%	10.7%
Use of safe evacuation places and routes in past three and half years						
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur	Total

Yes	11.4%	33.3%	92.3%	29.0%	67.7%	38.6%
No	75.0%	57.1%	7.7%	58.1%	25.8%	51.4%
Don't know	13.6%	9.5%	0.0%	12.9%	6.5%	10.0%

On the non-structural mitigation measures, different training and capacity building activities were carried out. Community people were reached with awareness messages on healthy behaviors, proper hand washing, toilet construction, etc. Trainings on first aid, health and sanitation, water and cleanliness, CADRE, vocational training etc. have been given to the task force in all study sites.

Focus group participants and key informants were stressing on **prioritizing structural mitigation measures to non-structural measures**, although there was inadequacy of funds to implement all planned activities relating to structural mitigation. On the other side, focus was not much laid to the non-structural measures that would enhance the awareness and knowledge of the community people in matters concerning DRR.

Livelihood support programme

According to the project report, the programme supported 285 people in starting livelihood activities that include opening small businesses (mobile phone repair, tailoring, animal medicine shop) agriculture, among other activities. These support programme has enhanced the quality of lives of the people. As stressed in the survey respondents who had received the support and focus group participants, the trainings and support that they received equipped them to undertake a livelihood option that supported them in earning a living. The monthly income that they make from their business has helped them not only in meeting their livelihood threshold.

"Initially, I would struggle for two meals a day, now we can eat well plus buy clothes and other required items, thanks to the Red Cross, it changed my life style." – Woman, Focus group participant.

4.2.9 Community based early warning systems

EWS were mostly associated with flooding. There were early warning systems in Sunsari, Saptari and Udayapur. Khotang and Bhojpur did not have any such system. Where they existed, the response teams were trained on EWS which resulted communities to adopt different early warning measures. As the simulations was done for EWS in the community, the community members reported that they could use the system when the disaster situation demanded them to operationalize EWS.

"The EWS was tested frequently as per the need of the community for disaster prevention and control." – Representative of CDMC

The early warnings are based on the flood monitoring information of Department of Hydrology and Meteorology (DHM) and is endorsed by the respective District Disaster Relief Committee (DDRC). For example, in Saptari, the Early Warning response teams are contacted if there are concerns about a possible flood in the Koshi River. In flooding prone areas, participants said that they relied on both the formal early warning system and their own observations too. Flood early warning systems were largely viewed positively by all case study communities. The system has been effective in saving and evacuating the people as well as livestock to ensure that the death toll is zero.

Furthermore, participants showed very good awareness of established communication and response protocols. In order to understand if the respondents were aware of the EWS, they were given a situation of possible flooding. They were asked if they would be warned about the disaster prior to the arrival of the disaster, to which, all respondents from Saptari said that they would, followed by Sunsari (96.8%)), and Udayapur (93.5%) This information is elaborated in Figure 10 below.

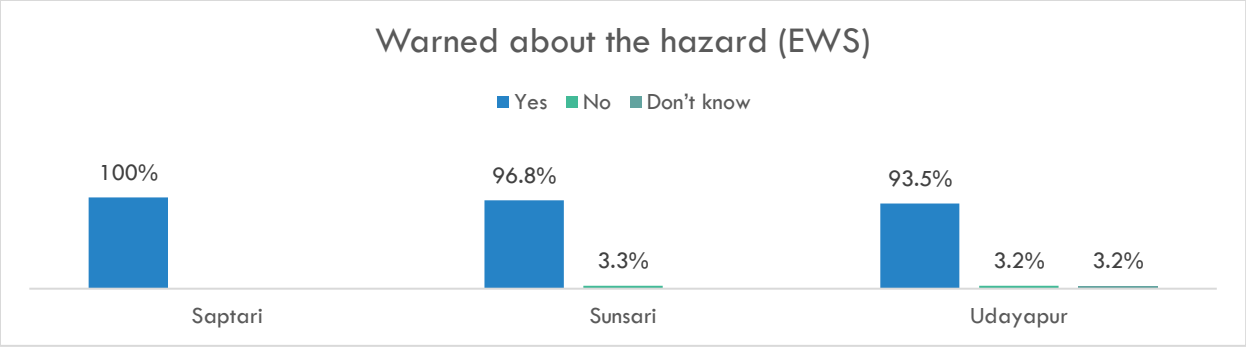

Figure 10: HH warned about the hazard

Similarly, the respondents were asked if they know of the EW focal point in their community, to which, all respondents from Saptari, 90.3% from Sunsari and 83.9% from Udaypur said that they know of the focal point. The warning messages were disseminated to the community people living in hazard zone through EWS response team. Communication to PwD, especially hearing impaired was also considered so that the messages reach them through the support of family members or neighbors who were made aware of such needs.

Case of Early Warning System in Prakashpur, Sunsari

EWS saved lives – Jaya Rai, Treasurer

Early Warning System in Prakashpur VDC has been operational from past 3 and a half years. EWS task force is set up that carries out different events to sensitize community about different hazards. EWS task force meets once a month to discuss on the future plans.

The EWS was formed to practice different early warning measures and a step towards facing the actual hazard.

The EWS consists of:

Mock drills were carried out in the community in the flood setting. A siren would be blown and the community would simulate the situation and run towards safe place.

This EWS has helped the community to a great extent. In the recent days, the siren is blown to aware and inform people of elephant attacks and hurricane.

EWS is linked with VDC and district level EWS. In case of any information or help required, the EWS communicates with the VDC and then district level EWS. Other than that VDC is also responsible in sharing information on prevention practices.

In the absence of EWS people watched cloud movements to forecast rainfall. Currently, EWS has been effective in the community. Community talks about the importance of EWS how they have been preparing for different hazards. People have placed trust in the system.

"When we see black clouds we become alert."- Community member, Prakashpur

"The early warning system gives chance to people to collect their important things like: money, property papers and to evacuate old aged, disabled and children to safer area." – Community member, Prakashpur.

4.2.10 Training and Capacity Building

The survey had representation of respondents or member of the household of the respondent who had participated in different trainings. The table below shows the detail of the training received either by the respondent or the member of the household of the respondent.

Table 18: Training received

Training received by the respondent or the member of the HH of respondent					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Basic CBDRR training	31.8%	85.7%	69.2%	51.6%	61.3%
First Aid training	61.4%	52.4%	84.6%	45.2%	48.4%
Basic health and WASH training	9.1%	33.3%	61.5%	32.3%	25.8%
Community Action for Disaster Response training	0.0%	28.6%	53.8%	22.6%	22.6%
Vocational trainings (different skill based trainings)	6.8%	23.8%	23.1%	22.6%	35.5%
EWS training	13.6%	19.0%	84.6%	35.5%	41.9%
Leadership and management training	22.7%	19.0%	38.5%	22.6%	16.1%
Training on humanitarian principles	18.2%	9.5%	23.1%	12.9%	12.9%
None of the trainings	9.1%	9.5%	7.7%	9.7%	32.3%

4.2.11 Comparison with non-intervention communities

A comparison on some of the 9 characteristics was made with the HHs from non-intervention communities.

There were no CDMC committees formed in these non-intervention areas. Other than the Red Cross, there were no presence of NGOs and INGOs that worked in context of CBDRR. Furthermore, HHs in non-intervention VDC were not very familiar with the VCA process. No VCA exercises were not conducted and in the survey, none of the participants had participated in the VCA exercise. Nearly two-third respondents (65%) reported that they did not know about the VCA exercises.

44.4% were aware of the village level DRM plans in the non-intervention areas, as opposed to more than 92.1% from the intervention areas. This is attributed to the fact that there has been participation from the community in designing DRM plans in the intervention areas, while in the non-intervention areas, the information on the existence of DRM plans was disseminated through community meetings. There were no community level DRM plans in place in of these non-intervention communities, hence none of the survey respondent had partook in the DRR simulation.

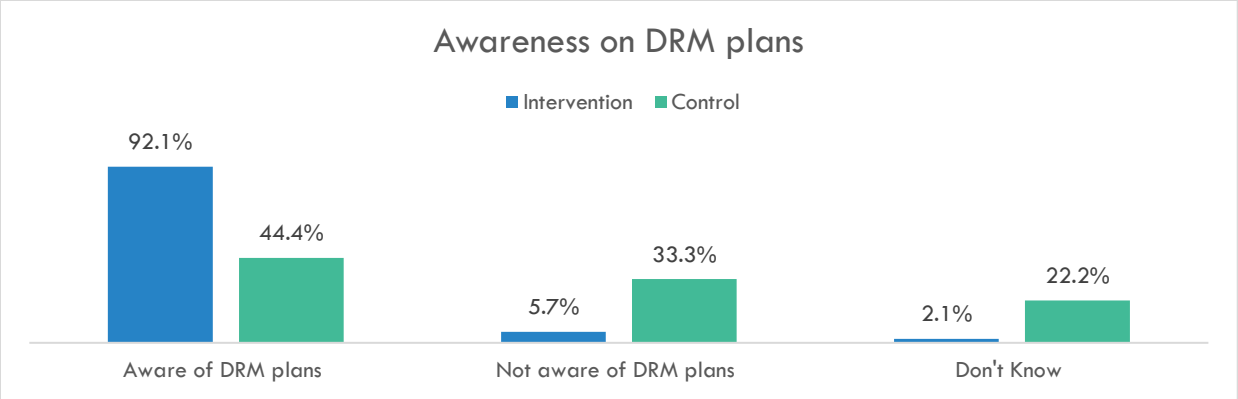

Figure 11: Awareness about existence of DRM plan

Furthermore, there were no response teams formed in the non-intervention communities. There were no first-hand responders as well. It was stressed in the interviews that in case of the small-scale disaster, the local community leader (from ward citizen forum) and VDC secretary would be in the fore front, however, the awareness about the safe sites and safe routes was lacking among almost half of the survey respondents. Given that only 55.6% of the respondents from non-intervention sites were aware of safe routes and safe sites, as opposed to more than 80% in the intervention areas.

In regard to receipt of information on DRR, both intervention and non-intervention groups relied on radio and informal channels like friends and families. However, in FGDs it was highlighted by the community people in intervention areas that there were social mobilizers and other Red Cross volunteers who spread the awareness messaging, while this was lacking in non-intervention communities.

4.3 FINDINGS AGAINST EVALUATION CRITERIA

4.3.1 Relevance/appropriateness

The project activities were deemed relevant by the stakeholder, especially beneficiaries, largely because Red Cross utilized community led activity design and re-design process. The approach the project took in engaging communities to identify their problems, needs and response strategies throughout the project cycle was the strategy that ensures relevance and appropriateness of the project. The VCA exercises acted as a base to identify hazards and vulnerability and activities related to DRR, WASH and cross cutting issues of GESI were designed based on the findings from the VCA exercise. However, **as an identified challenge there needs to be a strong sharing mechanism of the VCA process, along with content on DRM plans to the community**.

The evaluation team did not find concerns and instances that showed duplication of the project with other agencies. As corroborated by the district level government stakeholders, the project was unique in – involving stakeholders right from designing and planning phase ensuring that there was no duplication of activities in the targeted five districts.

Landslide was identified as a major hazard in Bhojpur and Khotang, while flood was identified as a major hazard in Saptari, Sunsari and Udayapur. Other than that, in Bhojpur, Khotang and Udayapur, windstorm was also identified as a major hazard. The community of Sunsari, Saptari, and Udayapur was in risk of animal attack and snake bite. There were risks associated with fire in all the districts. The flexibility of the project to integrate all disasters and to adopt a multi-hazard approach is a standout pillar for relevancy. Positive comments received through FGDs and KIIs in the way community/CDMC had a role in ensuring accountable participation of diverse groups of people in the communities throughout different stages of project cycle also can be considered to infer that the project was relevant. The activities implemented, and implementation modalities were in line with the local disaster context, the vulnerability context and the priorities of the Nepal Government.

Nonetheless, survey with community reveals how all respondents from Saptari and Udayapur believed that the project targeted vulnerable communities, while only 81% of respondents from Khotang were satisfied with the communities the project worked with.

Furthermore, more than 90% of respondents from all communities believed that the project was relevant to the problems they face. **All the respondents (100%) from all districts have stressed that there is a need of such type of project in their community**. In interviews with the government stakeholders, the need for such community driven programme was recognized. Figure 12 reflects the proportion of respondents with different perception on the relevance of the project to address the needs of the community.

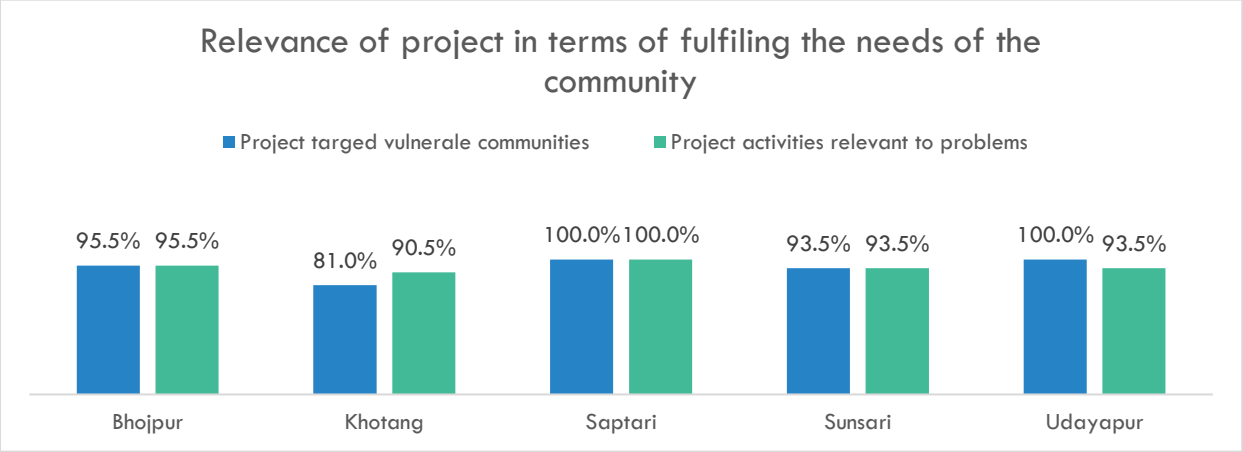

Figure 12: Relevance of the project

When asked about respondents' familiarity with the project activities, a significant proportion of the people from Saptari were aware of the different project activities. All respondents from Saptari were aware of formation of DMCs, awareness raising program, and DRM plans. More than 80% of respondents from other districts were aware of the formation of DRM committees. High percentage of respondents from Bhojpur (86%), Khotang (83.3%), Saptari (84.6%), Sunsari (67.7%) and Udayapur (74.2%) were aware of response team. The table no. 19 below summarizes the proportion of respondents who are aware about different project activities.

Table 19: Awareness of different project activities

Awareness of different project activities					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Formation of Disaster Management Committee	84.1%	85.7%	100.0%	80.6%	80.6%
Awareness raising and information on DRM	72.4%	81.4%	100.0%	74.2%	74.2%
Vulnerability and Capacity Assessments	95%	83%	84.6%	61.3%	54.8%
Formation of community preparedness and response teams	86%	83.3%	84.6%	67.7%	74.2%
DRM plan	8.2%	83.1%	100.0%	64.5%	71.0%
DRM/emergency management fund	82%	72.4%	92.3%	64.5%	71.0%
Materials and equipment for search and rescue/first aid	75%	71.4%	84.6%	74.2%	77.4%

Trainings on DRM or safer evacuation routes or disaster mitigation work or livelihood activities	68.2%	79.0%	92.3%	67.7%	74.2%
Early warning systems	0.0%	0.0%	100.0%	80.6%	80.6%

There was some level of engagement of the respondents in one of the stages of project cycle. Survey shows that there were only 29% from Udayapur, 28.6% from Khotang and 6.5% from Sunsari that were not involved in any stages of project cycle. All respondents from Bhojpur and Saptari reported that they participated in different stages of the project.

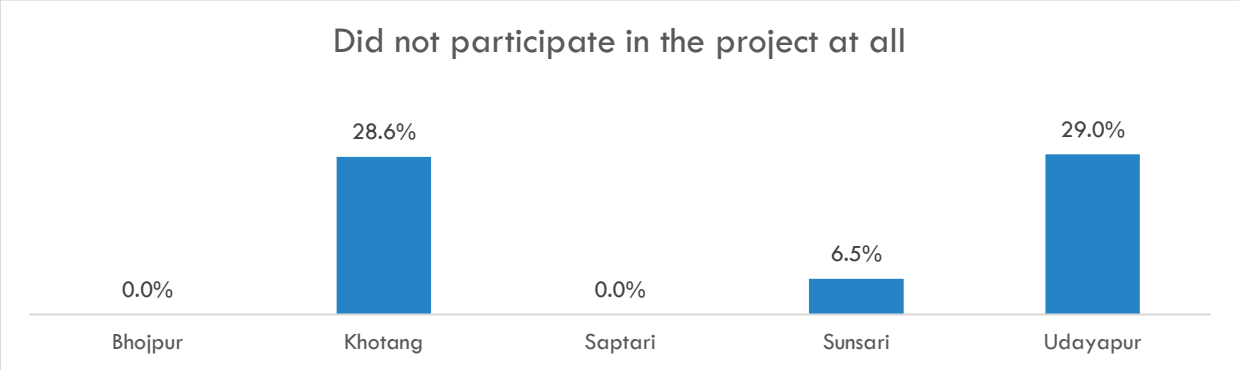

Figure 13: HH that did not participate in the project

4.3.2 Coverage

The project showed mixed results concerning the biasness and influences in selection and targeting of beneficiaries. Although the VCA exercises were carried out to ensure that the most vulnerable segment of the community, there was some concerns especially in Sunsari and Khotang that the project was being influenced and was bias towards certain population in terms of beneficiaries' selection.

As shown in the survey data, 48.4% of the respondents from Sunsari claimed that the project was biased in terms of beneficiaries' selection in selecting members for response teams and offering livelihood support, while 19% of respondents on Khotang believed the same. It could however not be corroborated through focus group discussions and interviews. It stressed during KII and focus group discussions that the most vulnerable population has not been ignored by the project.

"Although we could see some level of influence, the project has not left behind anything that needed to be covered. Some segments that need not be in the program have been included, especially in trainings."- Community member, Khotang

Figure 14 below shows the proportion of respondents in different districts on implementation biasness and influence.

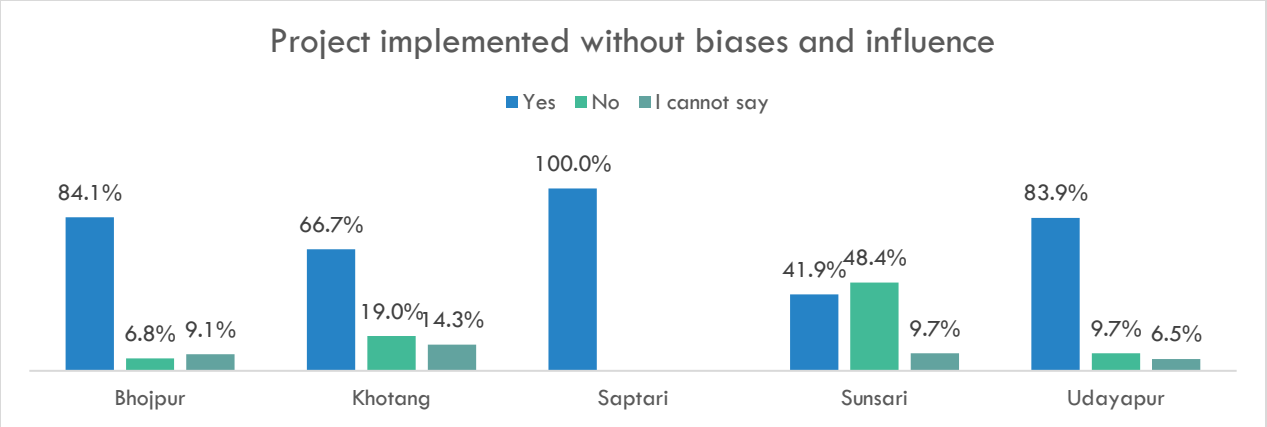

Figure 14: Project in terms of biasness and influence

On the positive side, almost all survey respondents believed that the project has provided benefits to all group of people, irrespective of caste, gender, religion. It is clearly evident that the project was not favorable towards any population based on their ethnicity or religion.

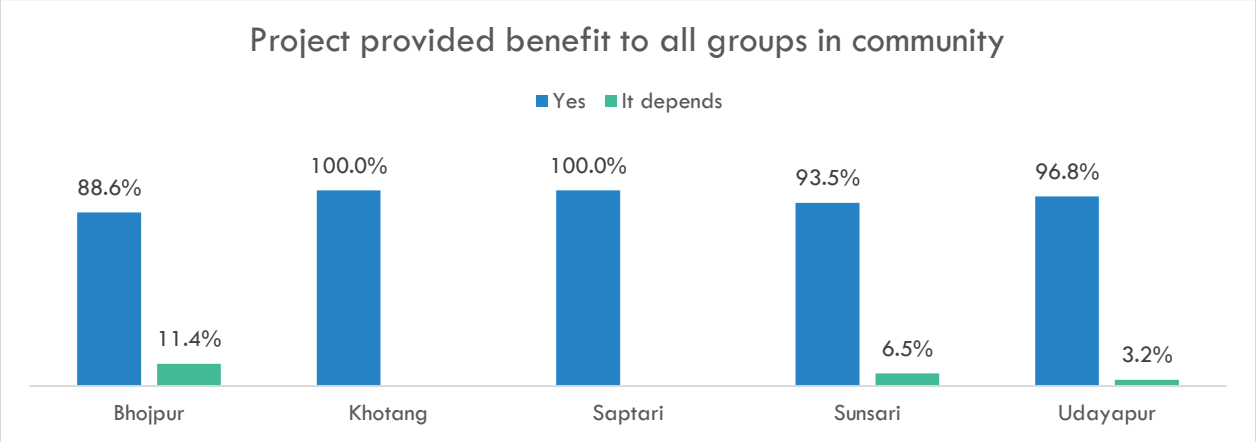

Figure 15: Project's coverage

4.3.3 Effectiveness

Outcome 1: Enhanced capacity of the target communities to plan for and to respond and recover effectively from identified hazards.

The project has been successfully implemented in terms of meeting Outcome 1. In all the community there is a DRM plan developed. The VDC had endorsed the plan and is linked with Village Disaster Risk Management Plan (VDRMP). The interventions listed in DRM plans are being implemented. There is a challenge in implementing the DRM plans, given the budget insufficiency. Moreover, the knowledge on the content of DRM plan was inadequate among the community members.

VCA was carried out in each community with equal and proper representation and participation from women and marginalized and PWDs. Findings from VCA has succeeded in identifying vulnerable people and sites of the community that are susceptible to face the brunt of disaster. Vulnerability profile of the PWDs, Dalits, and indigenous groups are prepared in the project areas. All the study communities had their DRM plans developed in line with LDRMP guideline and are endorsed by the VDC council. To test the plan, the communities conducted mock drills every year. In all the study committees, DM committee have been formed and are functional in implementing their plans. These communities have response team in place. CDMC members are trained on basic CBDRR training. In each CDMC, there are people are trained on

CADRE. The community leaders on the other hand are trained on management and leadership. In some committees of Saptari and Sunsari 8 to 10 people are trained in CADRE. Similarly, the CDMC members were trained on CBDRR and management and leadership.

It was evident from the project report and focus group with the CDMC members that at least 60% of them have participated in VCA exercise. The task force and the response team were place in all the communities. The CADRE, First Aid team, WASH team etc. were provided with training. The CDMCs had maintained the roster of the First Aid (FA), CADRE, EWS and other volunteers as well. The FA and CADRE had a rescue kit at prepositioned at CDMC.

Community emergency funds were collected. Collection was either in form of money or grain. The CDMCs had received a seed money of NPR 10,000 from the Red Cross.

All communities had adopted some form of structural mitigation. Culverts and plinths were constructed in flood prone areas, while afforestation was done and gabion fence was put in the vulnerable sites in the hilly region prone to landslide.

Study shows that people have received training on livelihood support. The selection of the beneficiaries was based on the findings from VCA exercise. Out of which 77% have received some form of start-up support. Some 65% of the target households applying livelihood strategies disseminated by the project (e.g. income generating activities, etc.).

The project had succeeded to create linkage with the local government and community. In the first year, consultation meetings and project orientations were carried out. Community level meetings, district level meetings, headquarter level meetings and annual meetings were carried out. Other than that other formal and informal meetings were held between the project focal persons from IFRC and NRCS to plan, monitor and report activities. Coordination meetings were carried out with stakeholders at district level and community level.

It was shared how the initiative linked the CDMCs with the VDC. The community could put forth their issue and concern to the VDC secretary. There are evidences where this linkage has resulted in tangible outcome where the support from VDC secretary led to construction of water system in Jarayotar, Bhojpur.

In regard to coordination with the local bodies to mobilize resources, there were no strong evidences to show that there was coordination with the local bodies like District Agriculture Development Office (DADO) and District Livestock Support Office (DLSO).

Outcome 2: Enhanced knowledge and behavior change in the target communities on effective disaster risk reduction procedures and measures.

At an outcome level, HHs are aware of the hazard zone and disaster risks. The communities were involved in VCA exercises. Households were able to tell at least one safety measure to respond to the hazard. Most of them in the study have cited evacuation to safe places via safe routes. Some HHs have even cited placing a food storage for contingency purpose. Positively, a lot of HHs (more than 80% from all districts) were able to identify the EW focal point in their community. The contact persons of CDMC, District Emergency Operation Centre (DEOC) and other line agencies such as Nepal Police, Armed Police and NRCS has been specified.

In three of the districts, there is a EWS established and tested. Simulations are carried out annually by CDMCs together with DHM and security personnel (Nepal Police, Armed Police). In these districts, the CDMCs have trained EWS personnel. EWS with appropriate technology was established and tested. In the study sites, at least 3 CDMCs were trained on EWS.

HHs had received basic health and WASH training in the study communities. The trained participants were involved in awareness programmes about hand washing, immunization, regular pregnancy check-up, and construction and use of toilet. Project communities had organized an annual event. In Bhojpur and Khotang, committes were found to be celebrating annual days like Earthquake Safety Day, *Red Cross Day, International Hand Washing Day, AIDS Day*. In all the districts, events related to DRR and WASH were

organized. All the CDMC had some selected members participate in exposure visits. According to the project report, a total of 5 exposure visits were organized. The learning from the visit was shared in the committee. Public Service Announcements (PSAs) were aired on radio once a month. They were effective in the sense that the HHs and the committees were aware of the message disseminated. Awareness messages on risk management, resilience, preparedness was aired through local radio station in local language.

Outcome 3: Social inclusion and a culture of non-violence and peace is promoted through the project.

People in the community had good understanding of the humanitarian values. The DMCs have representation and involvement of most vulnerable people as their member. In some committees, the involvement of the people from marginalized and ethnic groups were more than the others.

The community mobilizers and volunteers were trained on Code of Conduct (CoC) and complaint response mechanism (CRM). All the CDMCs had a beneficiary communication focal point in place. Volunteerism was often associated with the humanitarian value. The communities had youth trained on values of volunteerism. Project report shows that from 10 communities, youth participated in youth camps. These young participants gained skills and knowledge on inclusion, gender, nondiscrimination, humanitarian values and youth mobilization. The youth also took the initiative of collecting disability profile in the communities and facilitated for access of the disabled to the government facilities.

The workshop on humanitarian issue was organized in all the district for government officials. The VDC secretaries and community leaders participated in the workshop. ToT was carried out in each district to promote humanitarian values. The values related to humanity, non-biasness, impartiality and neutrality was promoted in the workshop. As a result of the workshops, community members and the CDMCs have reinforced their relationship with district level authorities.

Outcome 4: Increased NRCS capacity to support community DRR intervention at the community level

At the outcome level, two district disaster response team trainings were organized in Bhojpur and Khotang districts. As evidenced in the project report, the participants included NRCS volunteers, government employees including representative of District Administration Office, District Development Office and security forces. The list of these participants is maintained in a roster in NRCS district chapter and shared with other response agencies. The district chapters have volunteer mobilization and reporting system in place. A roster of the volunteers is maintained by NRCS district chapter.

Furthermore, there has been an involvement of Junior Red Cross (JRC) and Young Red Cross (YRC). JRC and YRC have been mobilized in different awareness generating activities. The OD department of NRCS headquarter was responsible to train and capacitate the staff at district chapters. The district chapters do have trained responders and staff and volunteers in health and WASH area. The staff at district chapters are trained on volunteer management and leadership, along with OD capacity building.

Other than achieving its program outcome, the project has been successful in promoting equality and equity to the vulnerable: women and the marginalized. The principle of GESI has been incorporated in all phases of the project as across cutting issue. Right from the VCA exercises, the problems of women and marginalized are given the paramount priority. There has been an involvement of women and marginalized, including people from Dalit ethnic background and PWD in the VCA exercises. These vulnerable groups are given priority over others in all the other activities, or capacity building programs. The CDMC committee has ensured representation of women and marginalized community.

The problems of women have been given significant consideration. The focus group participants mentioned of the problem associated with their reproductive health, majorly, uterus prolapse. Different health campaigns were organized in view of this identified problem.

"Women faced problems of privacy and security before use of toilets. We had to defecate in open field that did not protect our privacy. The project has been successful in making the community Open Defecation Free. This initiative has somehow protected our dignity and respect"- Woman during FGD in Saptari

Moreover, the project has succeeded in increasing confidence of women and changing their mindset. In case of Bhojpur, the Majhi women shared how they were confined in their households have now started to partake in different community activities.

"We always believed that men are the prime rescuers, and they will rescue us. But in the times of crisis, this sense of dependency results in panic, trauma and helplessness. The mindset is changing now, and this change is remarkably visible in the case of women who have attended the trainings and meeting. Women who regularly participate in the meetings have started thinking in terms of women's issues and quality of life as well as the necessary skills that they should be equipped with."- Coordinator of Sansari Women's Group, Bhojpur

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4.3.4 Efficiency and Accountability

The programme has been successfully carried out in terms of achieving all its target activities. According to the central level stakeholders, all the activities took place within the stipulated budget. There has been no over or under spending in any of the activities. This was possible given the experience in the similar nature of work being carried out in other districts. As stated by the representative of the Red Cross, it was also possible due to provision of budget revision based on the needs.

"We have worked on community based disaster resilience in other districts too. Our prior experience helped us determine the budget." – Director, DM department

On the opposing side, it was mentioned how the resources had to be directed more towards capacity building of the staff at district chapters. The turnover was high which required frequent training programmes to the staff. Given this situation, the stipulated budget was slightly deviated.

Findings from survey show that the budget was used in the activities that reduced risk of the community with more than 90% respondents reporting that budget was not spent in any redundant activities but on the ones, that helped communities become more resilient.

The table below illustrates the proportion of respondents who report that the project budget was used in activities that reduced the disaster risks in their communities.

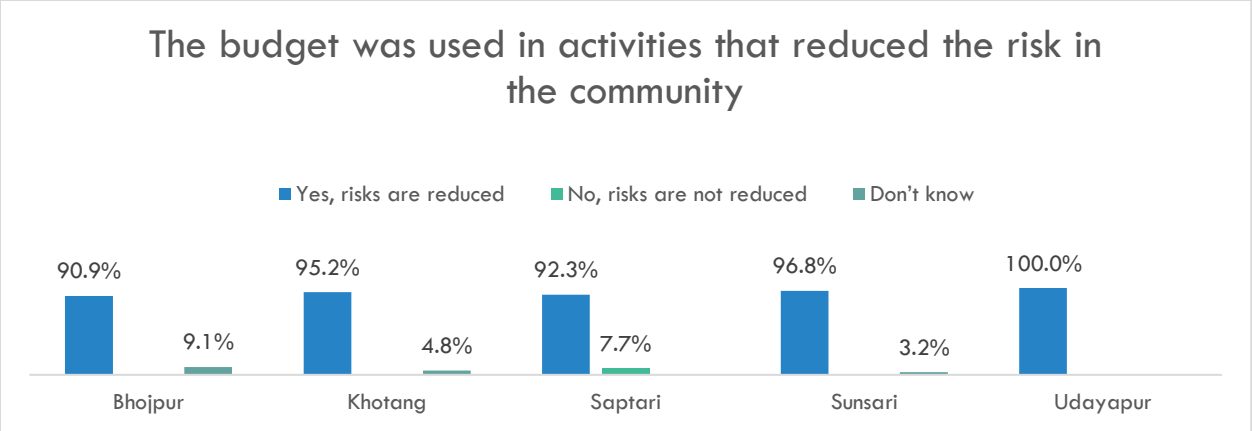

Figure 16: Use of budget to reduce risk

The project has been found to be transparent on its budget and accountable to the community and beneficiaries. In interviews with the CDMC members across all districts, they stressed that they had good level of awareness of the programme. All the activities that were carried out had been informed to the CDMCs.

To support the claim, survey results show that the project staff had shared information about the project budget and project approaches to the community. In Sunsari and Khotang there were a mixed result in case of proper dissemination of information on budget and approaches. While more than three fourth of the respondents from Udayapur (80.6%) and Saptari (84.6%) reported that project staff had shared the project budget to the community, the figure was only 57.1% in Khotang and 58.1% in Sunsari.

Following Figure 17 shows the proportion of respondents in different districts who stated that project budget was shared in the communities.

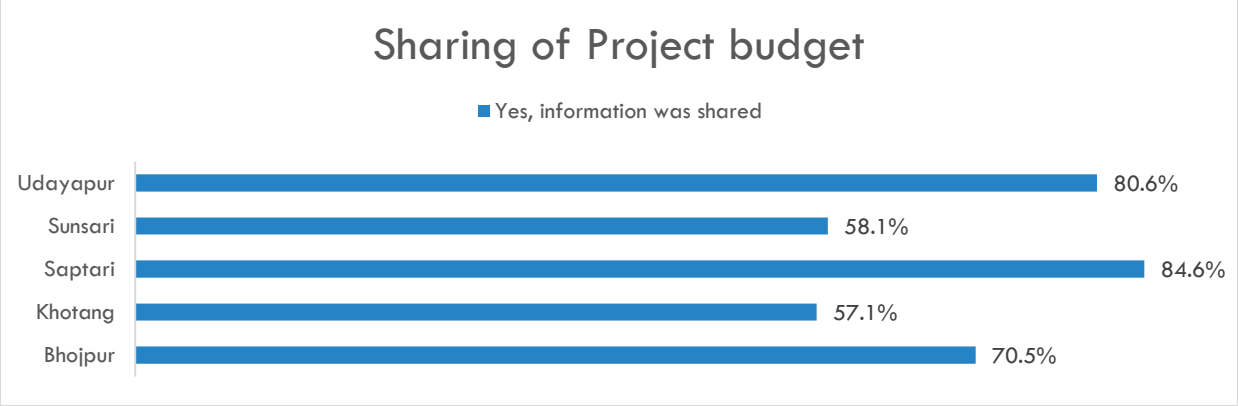

Figure 17: Sharing of project budget

However, discussions with the CDMC members highlighted that if there was more budget, more structural mitigation activities could be implemented such as putting in place a gabion wall in Khotang.

The Table no. 20 below indicates the proportion of respondents in different districts who shared different means of receiving information related to the project.

Table 20: Means/measures to provide information

Measures and means used to provide information related to program					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Discussions/sharing in community meetings	100.0%	81.0%	100.0%	87.1%	87.1%
Information boards	100.0%	57.1%	23.1%	48.4%	25.8%
Brochures and leaflets	97.7%	52.4%	0.0%	6.5%	6.5%
Don't Know	0.0%	14.3%	0.0%	3.2%	6.5%

In all the districts information was shared through discussions and community meetings. All respondents from Bhojpur and Saptari have said that information would be shared in community meetings, while 87.1% in Udayapur and Sunsari and 81% in Khotang shared the same.

In relation to information board, all respondent from Bhojpur shared that information would be shared in information boards in the community, while this was less common in other districts. Brochures and leaflets was again mentioned by almost the respondents of Bhojpur, while half the respondents (52.4%) from Khotang also mentioned the same.

Complaint box was considered as one of the mechanisms of addressing complaints. Survey showed that almost all respondents in Khotang (97.7%) were aware of the complaint boxes, while the percentage was low in other districts. Only 46.2% from Saptari, 35.5% from Sunsari, 33.3% from Khotang and 25.8% from Udayapur were aware of the complaint box. On the programme side, the activities were designed considering the Logistic Capacity and Institutional Capacity (LCIC) of the district chapters. This ensured the quality of staff and their capacity to carry out the project. A 9-day training on CBDRR was provided to all the staff before initiation of the project. The OD department was responsible in carrying out capacity building activities of the NRCS staff in district chapter. As stated by the program department, there were no logistical hassle in carrying out the activities.

Interdepartmental Departmental Coordination

The inter-department coordination sets an example of good practice of coordination in project implementation.

There was an involvement of multi-department in the project implementation. There was direct involvement of Disaster Management department, along with communication and humanitarian values, WASH, Organizational Development, and GESI department. All these departments had been allotted respective tasks and responsibilities. The departments were assumed to be carrying out activities under their scope of expertise.

Budget was allocated for each department to carry out its scope of work. Two committees were formed to implement the project: strategic steering committee and working committee.

	Technical working committee	**Strategic steering committee**
Chairperson	Director of DM department	Executive director of NRC
Responsible for	Implementation of project	Making policy level decisions
Members	DM director, along with technical personnel assigned from each department.	All department directors

This coordination modality has proven to be effective in achieving the outcome without any procedural hassle or interdepartmental conflict. In order to mitigate the chances of conflict among departments, the steering committee has been formed with representation of directors from each department.

4.3.5 Impact

The project can be deemed important for increasing the sense of preparedness among the communities. Over the past three years, the project has shown positive impact, in terms of increasing the knowledge of the HHs on exposure and vulnerability associated with the disaster. As mentioned by the community during focus group discussion, the community is not only aware of the direct effect of the disaster, but also aware of the subsequent risks associated with disaster-the most prominent ones being chances of epidemic related to water and hygiene.

Given the knowledge about exposure and vulnerability, households are better prepared to withstand future disasters. Communities are aware of the different mitigation and coping strategies associated with the disaster. The huge challenge lies with the poor economic status of the people that limits them to cushion up during the time of disaster. Although community people are aware that they need to have a contingency fund or food stock to cushion up at the time of crisis, yet they are not capable of gathering it given their poor economic status.

Other than that, the Terai districts of Sunsari, Saptari and Udayapur have benefited from the EWS in the community. The information received from the EWS have been significant in saving lives of people and livestock. The death toll has significantly reduced in the communities.

In case of the change in impact from the disaster, district other than Khotang mentioned how there has been reduced loss of asset and lives attributed to the project initiative. Khotang, on the other hand mentioned that they had not experienced any disaster to comment on the change in impact from the disaster.

The results from the survey on the impact of the project are in consistent with the aforementioned assertion as represented in Table no. 21 below.

Table 21: Impact of the project

Impact of the project					
HH's knowledge in exposure and vulnerability has changed					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
No change in knowledge	6.8%	0.0%	0.0%	3.2%	0.0%
Increased a little	38.6%	**61.9%**	15.4%	**51.6%**	19.4%
Increased a lot	**43.2%**	28.6%	**84.6**%	45.2%	**74.2%**
Don't know	11.4%	9.5%	0.0%	0.0%	6.5%
HH or community has benefited from EWS					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
No change	n/a	n/a	0.0%	3.2%	3.2%
Worsened than before	n/a	n/a	0.0%	0.0%	0.0%
Increased a little	n/a	n/a	0.0%	35.5%	16.1%
Increased a lot	n/a	n/a	**100.0%**	**61.3%**	**74.2%**
Don't know	n/a	n/a	0.0%	0.0%	6.5%
HH preparedness has changed					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Yes, I feel better prepared	**88.6%**	**85.7%**	**100.0%**	**96.8%**	**100.0%**
No, I feel we are not prepared	0.0%	0.0%	0.0%	0.0%	0.0%
It has not changed	0.0%	0.0%	0.0%	0.0%	0.0%
Don't know	11.4%	14.3%	0.0%	3.2%	0.0%
HH has taken concrete steps towards preparedness					

	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Yes	**79.5%**	23.8%	**100.0%**	**83.9%**	**80.6%**
No	6.8%	**66.7%**	0.0%	6.5%	19.4%
Don't know	13.6%	9.5%	0.0%	9.7%	0.0%
Impact from disaster has changed					
	Bhojpur	Khotang	Saptari	Sunsari	Udayapur
Reduce asset loss from disaster	0.0%	0.0%	30.8%	38.7%	22.6%
Reduce life loss from disaster	0.0%	4.8%	7.7%	6.5%	0.0%
Reduced asset and life loss	**97.7%**	4.8%	**53.8%**	**45.2%**	**61.3%**
Have not experience disaster	0.0%	**76.2%**	0.0%	3.2%	9.7%
Situation is the same	0.0%	4.8%	7.7%	3.2%	0.0%
Don't know	2.3%	9.5%	0.0%	3.2%	6.5%

4.3.6 Connectedness, sustainability and ownership

The project has been effective in meeting its objective to a great extent, and moreover, the project design ensures sustainability in a lot of aspects. Given that, the ownership of the CBDRR activities deems possible.

The programme has been handed over to the communities. At this stage the communities are in the forefront in continuing the programme activities. Different activities supported by and facilitated by the programme have made it viable for the communities to be in the front line. The DRM plan is intact in all committees. These plans are the roadmap in achieving a disaster resilient committee. The plans will be the basis of carrying out different activities, relating to awareness, mitigation or response, in case of disaster. Moreover, these plans will be embedded with the VDC level plans ensuring that the priority areas are covered. The formation of capacitated CDMCs is a step towards sustaining the objective of the project. The CDMCs are formed in accordance with the government guideline. These committees can take a lead in carrying out stipulated activities in the DRM plan. These committees will be working as a nodal body for managing disaster risk in future. In each of the intervention sites, there is a presence of CDMC. The technical and practical knowledge imparted to these committees will beneficial in the long run sustainability. Despite the cease in the funds from the Red Cross, these committees have been capable of carrying out their responsibility.

Another noteworthy attempt is formation of response teams. The response team would be in the forefront in case of any disaster. The roster of trained members of responders, response teams and Red Cross volunteers has been maintained by Red Cross to ensure that all the trained personnel can be mobilized in case of disaster.

The CDMCs and response teams will be responsible in disseminating and spreading awareness on the issues pertaining to WASH, GESI, humanitarian values etc. Although the funds may not be available, the awareness programs can take place.

The activities will be supported by the emergency fund that had been collected over the project period. To give continuity to the collection of funds, the committees will ensure to small collect contribution from the community members. The committees have also been collecting food grains from each of the household during harvest time. This collection will cushion up at the times of crisis.

The project has also succeeded in making linkages of the CDMCs with the government bodies, CSOs and other stakeholders. This linkage has proven to be beneficial in the past and is expected to continue in future. In one instance, in Jarayotar, Bhojpur, in collaboration with the government, a 40 lakh worth drinking water project was initiated in suggestion of the community people, led by local leaders along with CDMC members. The problem of drinking water was identified during VCA. Similarly, in Saptari there are talks of building a dam in collaboration with different NGOs. These kind of linkage, if given continuity, can support in long term sustainability.

On the other side, the sustainability can be challenged by the turn-over of the trained personnel. The retention of trained personnel is of utmost importance to ensure sustainability. There is also a challenge of maintaining operational cost of the EWS after termination of project.

CDMC FGDs in all the study districts demonstrated high level of enthusiasm to continue fulfilling their responsibilities even after the funding ceases. However, a challenge was anticipated by these members in implementing all the activities in the DRM plan. Although the CDMC members were positive that they had accumulated certain fund on their own they believed that would not suffice to implement all the activities, hence support from the VDC is sought to implement the activities in DRM plan.

"The community is aware of the possible hazards, thanks to VCA exercise. To overcome or minimize the possible effects of disaster in life and property, the community member will stand collaboratively to support and help the needy members of the community. We, as a CDMC member, will serve full heartedly." – CDMC member, Udayapur

This was supported given that more than three fourth of the respondents in the survey were positive that the communities would work beyond the project. Following chart shows proportion of respondents in different districts who think that the project activities will be continued beyond the project.

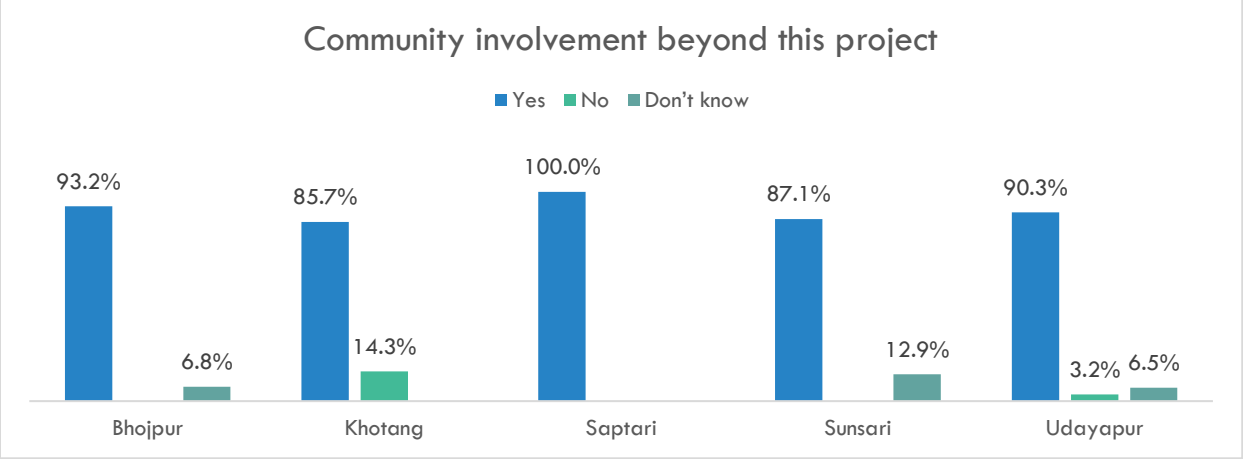

Figure 18: Community involvement beyond the project

In interviews and focus group discussions with the CDMC members, they had positively internalized that the porgramme were in their ownership. According to them the roles and responsibility of the committee and response teams are well dictated. The response teams will be on the front line to manage any disaster. Furthermore, the awareness messages will still be spread in the community. According to these members, the DRM plan is the roadmap that will guide them in designing activities in relation to DRR and DRM.

"The programme activities were designed in such a way that we can give continuation to the activities. If we need to manage small disasters, we are able to do that."- Member of CDMC, Saptari

One challenge in taking ownership was regarding the inadequacy of funds for preparedness. The 5% budget allocated for DRR with the local government is not enough for the CDMCs to take forth the planned activities. There is an accumulation of emergency fund, but the replenishing of fund after depletion was however an issue. As stressed by few of the CDMCs members from across all districts, if the fund is expended at once, replenishing the depleted fund will pose serious problem.

On the other hand, these CDMC members have sought coordination from Red Cross in further linking them with the local governmental bodies.

5 CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The evidences from the field and other secondary data confirms that the project has successfully achieved its outcomes. Overall, there are sufficient examples to argue that the capacity of the targeted communities to plan for, to respond to and to recover from disasters has increased; knowledge has improved in the targeted communities on risk reduction measures; understanding on humanitarian values has strengthened and the capacity of NRCS has been built in order to support communities to undertake DRR activities. Various activities implemented throughout the project have contributed in building the sense of preparedness in the community. Together, the interventions have led to change in practices from post-disaster to preparedness.

To summarize the changes, project communities have presence of 9 Minimum Characteristics of disaster resilient communities though some MCs are established in some communities while other MCs are strong in other communities. There was a strong EWS in the Terai region. The EWS can be deemed successful in warning the community about the disaster, precisely, flood and saving the lives of many people and livestock. The knowledge about focal person for EW could be identified by more than half (97%) of the respondents. All CDMCs have implemented DRM interventions listed in plans but it was stressed that CDMCs did not have adequate resources to implement majority of the actions in the plan. The VCA exercise was carried out to identify the need and vulnerability of the community. People has a good sense of understanding on the process of VCA, however with gap on comprehensive knowledge on the rationale behind developing DRM based on the findings from VCA. CDMCs were found to be managing emergency funds as per agreed fund management guidelines with NPR 10,000 seed money from the Red Cross. The fund was being expanded though cash, grains, cultural fund raising. The replenishing of fund after depletion was however an issue. The awareness regarding the resources and materials for the time of disaster was high, with 87.1% having knowledge on how to access the resources.

The initiative expressed commitment to promote non-discrimination, inclusion and human dignity issues in their respective community. It signals how inclusion agenda is gaining importance in DRR work as well. It was widely agreed by the community (73.6%) that community members in need of support were assisted without being partial or taking biases.

The project has also successfully strengthened the capacity of the district chapters. All five district chapters have mobilized volunteers and staffs trained to provide technical support on DRR. Moreover, district chapters have received leadership trainings and trainings on OD. There has been appreciative mobilization of JRC and YRC in sensitizing the people as well as in activities concerning DRM.

Given the disaster-prone situation in all the districts, the initiative can be considered very relevant. The VCA exercises have been the basis of need identification which ensures community participation. Moreover, the project has successfully been implemented within the stipulated time within the range of stipulated budget. The project was designed in such a way that it ensured community ownership - by giving communities the opportunities to identify what the problems are and how they can be addressed. Many elements of the project can be sustained without further funding. The capacity of the community has been enhanced, and the task forces have been created based on volunteerism. The response teams are adept in continuing the responsibilities and is believed to be in the forefront in case of any disaster. Presence of DRM plans in the communities would provide a basis for DRR work in future too. The VDCs have endorsed the plans and are linked with VDRMP. It was found that efforts are already underway to implement the interventions listed in DRM plans. The linkage of the CDMC to the local government bodies is a milestone to sustain the long-term sustainability of the project. However, there is some challenge in implementing the DRM plans, given the budget insufficiency. Moreover, the knowledge on the content of DRM plan was inadequate amongst the community members.

The project follows inter-department modality, where each of the department in NRCS is responsible to look into their respective thematic areas. The two-tier committees: strategic and working committee have proven to be effective in taking comprehensive and holistic measures. Furthermore, the contribution of the project in thematic areas of WASH and GESI has been well recognized by the community. The progression of the community from unprotected sources of water to protected sources and improved access to household toilet from the baseline situation demonstrate effective level of awareness and sensitization achieved by the project. Furthermore, the increased confidence among women attributed to their involvement in different phases of the project has signaled that the project was successful in empowering women as well.

5.2 LESSONS LEARNED AND RECOMMENDATIONS

In regard to the beneficiaries' selection process, a small percentage of HHs have asserted that the selection process was biased. The programme has sought participation from the community from its initial phase, however such assertion has come out in the community attributable to the lack of information dissemination on the orientation programme as well as in sharing of information in initiating any programme activities. This evaluation has shown that many people of the community rely on sources like radio and community meetings.

- The medium for information dissemination should be selected to assure maximum coverage.
- Mediums like radio and community meetings can be utilized in communicating with the community about the orientation and initiation of the program. Moreover, the frequency of information dissemination should be increased at different time slots.

In evaluation, although the programme has sought to cater to the needs of PwD in making them aware about the early warning through their families, didn't come out strong that there were different means and medium for disseminating messages and information for the people with special needs, especially physically disabled population in other DRR related information. For example, a jingle aired on radio would not address the need of people with hearing impairment.

- Providing a tailored solution to these population would make the project successful in terms of being inclusive in its true sense.
- A disability mapping via YRC and JRC would be instrumental in identifying the prevalence of people with different types of disability and designing the awareness campaign with a customized approach.

The community were not being aware of how VCA informs DRR could be addressed through strengthening social mobilization. Communities' knowledge was mostly limited to understanding the identification of vulnerable groups and sites and understanding the extent to which the assessments informed the DRR plans was not very strong. This signaled a situation where people had inadequate information on the rationale behind carrying out VCA exercise to develop DRM plans.

- There should be strong sharing mechanism in the community from the people involved directly in the process. This can be done through door-to-door awareness through social mobilization.

It was learned in the evaluation that although communities were aware of the VCA process and existence of DRM plans, they lacked comprehensive knowledge about the content. This is a result of inadequate discussions of the communities on the DRM plans. It was indicative that only those involved directly in the VCA and development of DRM plans were aware of its content.

- There needs to be high level of community involvement to understand the rationale of developing DRR plans. Therefore, integration of DRR as a priority area in the 14-step planning process will not only ensure community participation, but also will enable mainstreaming DRR in government priorities for the long-term sustainability.
- The inadequate capacity of the community members to link VCA with DRR plans and all DRR activities is largely because of inadequate social mobilization- the limited involvement of project to continuously share how each DRR activity is linked with VCA and DRR plan. It is recommended to intensify social

mobilization building skills of the staffs to link the VCA to DRR plans and VCA and DRR plans to DRR activities.

Further, formation of response team has been an appreciative effort from the project. Nonetheless, retention of the response team was identified as a problem in all study sites.

- There should be knowledge transfer from the person trained to others.
- To retain the learning for the existing response teams, follow-up trainings and post-training support should be provided even after the programme is terminated.

With limited resources and funding, it was difficult for the CDMCs to implement activities outlined in the DRR plans. Although there was a provision of maintaining emergency fund, it was mostly considered as a fund for emergency purpose, rather than to use the resources for preparedness.

- CDMCs can be familiarized with different alternatives to accumulate and diversify funding. One measure could be through livelihood support. Communities can be provided diversified livelihood options with the clause to ensure that certain portion of the income would be contributed to the emergency fund.

Livelihood is directly linked with resilience of the people. Poor people are more vulnerable, given that preparedness and capacity to respond is low. It is imperative to increase transformative capacity of these people. Only then people will be able to escape the vicious cycle of poverty and vulnerability.

- Linking people with existing institutions like cooperatives, and savings group, and market enables them to be better prepared for the disaster.
- Creating linkages with the local bodies for mobilization of local resources is also important in this aspect. Coordination with DADO, DLSO and other local bodies can be effective to strengthen livelihood options of the people. The linkage with the DADO and DLSO will provide livelihood support options (access to seed, access to livestock) for the people, thereby increasing their purchasing power and hence, enhance their life style. Likewise, it can also include bringing a District Public Health Office (DPHO) staff in the communities to orient on epidemic risk during or after monsoon. Another example is bringing staff from DADO/DLSO to speak on health risks to crops and livestock.

There was no evidence in any communities using the DRR fund to purchase additional equipment such as first aid or search and rescue kits. Once the resources will be depleted, there is a risk that it would not be easy in replenishing the kits without adequate funding. It was also stressed by the focus group participants that the fund would not suffice the operational cost of the wear and tear of the materials.

- The stronger linkage with local level government is crucially important.
- A separate fund for operation and maintenance can be established. The 5% development fund assigned for DRR activities from local bodies should support for such activities.
- The restructuring process of the local bodies in Nepal in the federal system is another opportunity to ensure that adequate resources are allocated for DRR work at the local level.

The use of modern EWS had taken over traditional measures of early warning. People were relying on the modern means and had slowly forgotten about the traditional early warning practices. The sustainability of modern technology of EWS is guaranteed with regular fund and human resources available to operationalize them. There is relatively higher operational cost associated with the system.

- While modern EWSs are needed, it is equally important to continue promoting and strengthening traditional EWSs. Overall, a mixture of traditional and modern EWS is expected to contribute to the sustainability of such systems.

The study revealed a significant difference between the intervention and non-intervention VDCs in terms of awareness regarding preparedness. The intervention communities fared better in terms of translating learning into actions (example, awareness on EWS, emergency fund, safe routes etc.).

- It is important that this is transferred to the non-intervention communities as well. Such replication and scaling up could be possible by organizing exchange visits between intervention and non-intervention communities and by mobilizing VDMCs to take care of DRR work across all VDC.

The **other recommendations** are outlined in the following paragraphs.

Designing of the project

- VCA has been conducted by the project after the project started as it is a normal practice. But the presence of NRCS across the districts can be used to conduct exercises before the project is designed. Training to NRCS sub-chapter members may be a cost-effective strategy NRCS can employ in this regard. Although, some projects and the communities where VCA is conducted may not be selected, the criteria for selection a pre-requisite to be shared to all participants of VCA not to increase expectation, all participants will be sensitized on the gravity of problem and also their own capacities.
- Though project has a substantial focus on risk informed communities, risk sensitive interventions but transformative approaches can be strengthened (financial institutions, markets insurance systems)
- Complaint/grievance handling mechanisms can be improved where beneficiaries need to have right to disagree, right to information and right to lodge complaints.
- Research component as a learning organization, NRCS could have built in some researches within the project. As for example, what works and what does not work in terms of modern EWS; what are the forces and factors contributing to a functional DMC, etc. These researches could strengthen the work though tailoring the interventions. Alternately, a real-time evaluation could always be useful to make necessary adjustments in the project.

Awareness raising and capacity building

- The project has enhanced the knowledge of the community members on DRR. However, more entertaining ways of awareness raising activities such as street dramas can reach more people and will be effective in future interventions.
- The project did make use of trilogy emergency relief application (TERA) for risk reduction messages to the project communities. By working on the location tracker, the same system can be used to messaging people since mobile technology is widely prevalent in all the intervention districts.
- Some of the awareness raising activities such as radio programs/messages have been useful to an extent but unless listener's survey was conducted, and radio stations and time are agreed with communities, radio messages may not be meeting the targeted audiences. Voices of the communities in the radio programs enable communities to listen to radios. Feedback sessions on radio messages are important to understand the type of information they require. Such feedback can be received through regular CDMC meetings.
- The project has not trained all beneficiaries expecting that the trainees chosen for a training package will share the learning in the community with other members. As it was found that not all trained participants share their learning, it is recommended to put in place a sharing mechanism. This means cascading training requires follow up to make sure the information being transferred is accurate and that those trained are indeed passing on information to other community members.

Advocacy and lobbying

- Though stakeholders are involved in trainings, there were no conclusive evidences to show that communities were actively engaged in advocacy work. The project has successfully integrated and mainstreamed DRR, health, WASH, OD in designing of the programme. Future focus should be in advocating for taking a mainstreaming approach in addition to stand alone approach (i.e. integrating DRR into interventions in education, agriculture, WASH/health, etc.) in government priorities.
- This is also a sustainability issue, but, despite the emergency fund in communities, not all communities have been able to diversify this fund. A structured advocacy plan to raise funds form line agencies and stakeholders will increase the chance of sustaining this fund.

Sustainability

- It is recommended that NRCS district chapters interact with communities, time and often, to track the sustainability of the project. Low-cost follow up activities such as minimum support to update and operationalize the DRM plans is a clear need in these communities. A simple phone call to DMC members could be another cost effective alternative way of follow up.
- Easy handbooks for DMCs and task forces are needed as there is an issue of retention of trained community members.
- Livelihood has been one of the project components, but as communities shared that they may not have adequate resources to implement the plan, support to communities through income generation activities should always supplement the DRR interventions. It will only increase the resilience of the beneficiaries by making them more prepared in case of disaster, but also help them contribute to the emergency fund.

In a nutshell, the evaluation confirms that this project was relevant to the needs of the communities who were facing multiple hazards in 5 districts and in line with national and local priorities; it was implemented in a participatory way (involving beneficiaries, stakeholders), it has contributed in reducing the suffering of the people by preparing them to be able to manage disasters; and there are prospects (systems such as DMCs/DRR plans, capacities/skills and resources such as DRR Fund/equipment on first aid and search and rescue) that are likely to sustain some of the achievements resulted by the project. A follow up from NRCS will be required and some changes as mentioned in the recommendations above would be required in future but NRCS have reasons to be satisfied through the work in the Koshi River Basin. **This community led participatory approach can be replicated or scaled up following the same modality in other communities for it ensures community ownership and sustainability of the project, even after the termination of the programme intervention.**

ANNEXES

ANNEX I: LIST OF PARTICIPANTS

Sampling Summary

District / VDC	HH surveyed	KIIs with Stakeholders		Qualitative		
Quantitative Total	**169**	Male	Female	Male	Female	Total
Bhojpur	56	2	1	9	15	24
Khotang	26	2	1	16	11	27
Sunsari	16	2	1	7	13	20
Saptari	35	2	0	5	10	15
Udayapur	36	3	0	14	10	24
IFRC / NRCS / PA / Others	-	10	1	-	-	

KII Participants Bhojpur

Name	Organization/Occupation	Date of Interview
Tirtha Raj Chapagain	CDMC Coordinator, Charambi	March 16, 2017
Sita Pariyar	Local Development Officer	March 16, 2017
Tej Shrestha	Program Officer, NRCS	March 17, 2017

FGD Participants Bhojpur

1. Group Category: Women Group
   Date of Interview: Mar 17, 2017
   Total – 9 Participants

2. Group Category: CDMC Group, Charambi
   Date of Interview: Mar 16, 2017
   Total – 7 Participants

3. Group Category: CDMC Group, Jarayotar
   Date of Interview: Mar 18, 2017
   Total – 8 Participants

KII Participants Khotang

Name	Organization/Occupation	Date of Interview
Chetra Bahadur Karki	Former CDMC Coordinator	March 14, 2017
Lokmaya Thapa	Officer, NRCS	March 14, 2017
Ramesh Pokhrel	VDC Secretary, Bahunedada	March 14, 2017

FGD Participants Khotang

1. Group Category: Active CDMC Group, Bahunedada
   Date of Interview: Mar 14, 2017
   Total – 10 Participants

2. Group Category: CDMC Group, Badahare
   Date of Interview: Mar 17, 2017
   Total – 9 Participants

3. Group Category: CDMC Group, Badahare
   Date of Interview: Mar 17, 2017
   Total – 8 Participants

KII Participants Sunsari

Name	Organization/Occupation	Date of Interview
Babita Subedi	Team Leader, NRCS	March 14, 2017
Shankar Acharya	VDC Secretary, Prakashpur	March 14, 2017
Rabin Ghimire	Community Leader	March 14, 2017

FGD Participants Sunsari

1. Group Category: CDMC Group, Prakashpur
   Date of Interview: Mar 14, 2017
   Total – 6 Participants

2. Group Category: EWS Taskforce, Prakashpur
   Date of Interview: Mar 14, 2017
   Total – 6 Participants

3. Group Category: CDMC Group
   Date of Interview: Mar 14, 2017
   Total – 8 Participants

KII Participants Saptari

Name	Organization/Occupation	Date of Interview
Renu Chaudhary	Social mobilizer, NRCS	March 17, 2017
Birendra Majhi	Community Leader	March 17, 2017

FGD Participants Saptari

1. Group Category: CDMC Group, Bhardaha
   Date of Interview: Mar 17, 2017
   Total – 8 Participants

2. Group Category: Womens Group
   Date of Interview: Mar 17, 2017
   Total – 7 Participants

KII Participants Udayapur

Name	Organization/Occupation	Date of Interview
Gopal Thapa	Social mobilizer, NRCS	March 16, 2017
Satya Narayn Hujder	VDC Secretary, Tapeshwori	March 15, 2017
Dhruva Prasad Koirala	CDMC Coordinator, Tapeshwori	March 15, 2017

FGD Participants Udayapur

1. Group Category: CDMC Group, Tapeshwori
   Date of Interview: Mar 15, 2017
   Total – 9 Participants

2. Group Category: Women Group, Tapeshwori
   Date of Interview: Mar 15, 2017
   Total – 7 Participants

3. Group Category: CDMC Group
   Date of Interview: Mar 16, 2017
   Total – 8 Participants

ANNEX II: INDICATORS MEASURED IN THE STUDY

The project established the end line figures against project indicators by collecting information through review of project documents, household survey, observations, FGDs and KIIs. The key indicators measured are:

- % of target communities with 9 minimum characteristics of resilience as stipulated in Flagship-4 programme of Nepal government (Goal indicator)- CDMC FGD
- % of reduction in loss of lives and economic losses on households during disasters in the target communities (Goal indicator).
- % of community DRM plans linked with village DRMP plans in the target communities (Outcome 1 indicator)- CDMC FGD
- % of DMC that implement DRM interventions listed in plans and ensure continuity (Outcome 1 indicator) – CDMC FGD
- % of DMCs that are managing funds as per CDMC fund management guidelines (Outcome 1 indicator) CDMC FGD
- Number of communities that are identified, characterized and targeted according to their specific needs (Output 1.1 indicator)- Covered by VCA
- Number of VDCs and communities that have conducted VCAs in inclusive and participatory way (Output 1.1 indicator)- Observation
- Number of districts with updated DRM plan (Output 1.2 indicator)
- % of DRM plans conducted following Government's LDRMP Guideline (Output 1.2 indicator)- Literature review and CDMC FGD
- % of VDC DRM plans endorsed by VDC council (Output 1.2 indicator)- CDMC FGD
- % of communities who completed at least one drill exercise on the DRM plan every year (Output 1.2 indicator)- CDMC FGD
- Number of DMCs formed in the targeted VDCs and communities (Output 1.3 indicator)- CDMC FGD
- % of DMCs that are implementing their community DRM plans (Output 1.3 indicator)- CDMC FGD
- % of targeted communities whose members are trained on CBDRM (Output 1.3 indicator)0 CDMC FGD
- % of communities trained on management and leadership skills (Output 1.3 indicator)- CDMC FGD
- % of trained people involved in VCA and other CBDRM activities (Output 1.3 indicator)- CDMC FGD
- % of targeted communities that have community response teams (Output 1.4 indicator)- Observation
- Number of community members trained on first aid (Output 1.4 indicator)- CDMC FGD
- Number of community members trained on CADRE (Output 1.4 indicator)- CDMC FGD
- % of communities maintaining a roster of people trained on first aid, CADRE and EWS (Output 1.4 indicator)- Observation
- % of communities with at least one set of search and rescue kit with CDMCs (Output 1.4 indicator)- Observation
- % of communities CDMCs that have received seed money for emergency/DRM fund (Output 1.5 indicator)
- % of communities that have received grain collection container (Output 1.5 indicator)
- % of communities are you involved in cash and grain collection activities for use during disaster (Output 1.5 indicator)- Observation
- % of target communities with at least one structural mitigation activity carried out during the project cycle (Output 1.6 indicator)- Observation
- % of the target communities maintaining food grain container and rescue kit (Output 1.6 indicator)- Observation
- Number of people from targeted communities that have received vocational training based on need assessment (Output 1.7 indicator)- CDMC FGD
- % of trained people from target communities who have received livelihood start-up support (Output 1.7 indicator)- above and this question on HHS-

- % of the target households applying livelihood strategies disseminated by the project (Output 1.7 indicator)- HHS
- Number of consultation and orientation workshops conducted at national, district, VDC and community levels to promote mutual collaboration and cooperation (Output 1.8 indicator)- KII NRCS staff
- Number of monthly/half yearly/annual meetings organized at community, district and headquarters levels (Output 1.8 indicator)- CDMC FGD and project report
- Number of stakeholder coordination meetings organized at district level and community level during project period (Output 1.8 indicator)- KII NRCS staff
- Number of knowledge and experiences exchange events among partners and stakeholders at national and international platforms (Output 1.8 indicator) - KII NRCS staff
- % of the communities where at least 60% of population are aware of hazard zone and disaster risks (Outcome 2 Indicator)- HHS
- % of the households who can tell at least one safety measure to respond to each identified hazards in the target communities (Outcome 2 Indicator)- HHS
- % of the target communities that have implemented at least one hazard resilient practice in their family (Outcome 2 Indicator)- CDMC FGD
- % of households that can identify the EW focal point in their community (Outcome 2 Indicator)- HHS
- % of the target households that have increased level of awareness on WatSan and hygiene promotion (Outcome 2 Indicator) -HHS
- Number of target communities that have established at least one channel for communicating EW message (Output 2.1 indicator)- Observation
- Number of CDMCs that have at least 5 members trained in EWS (Output 2.1 indicator)- CDMC FGD
- Number of target communities where EWS is tested at least once in a year (Output 2.1 indicator)- CDMC FGD
- % of the target communities covered through open street mapping (Output 2.1 indicator)- Observation
- Number of households that received basic health and WASH trainings in target communities (Output 2.2 indicator) -HHS
- % of target communities that organize an awareness in celebrating days of special issues (Output 2.2 indicator) –CDMC FGD
- Number of CDMC members from each district who participate in NRCS organized exposure visits (Output 2.2 indicator) – CDMC FGD
- Number and nature of public service announcement (PSAs) aired on radio at least once in a month (Output 2.2 indicator)- HHS
- % community people who have understanding of humanitarian values (Outcome 3 indicator) HHS
- % of target households that express commitment to promote non-discrimination, inclusion and human dignity issues in their respective community (Outcome 3 indicator)- HHS
- % of DMCs that have most vulnerable (dalits, janajatis, PWDs) people as members (Outcome 3 indicator)
- % of community mobilizers and volunteers who are trained on CoC and complaint response mechanism (CRM) (Output 3.1 indicator)
- % of the target CDMCs have a beneficiary communication focal point in place (Output 3.1 indicator)- CDMC FGD
- % of target communities that have at least 1 youth trained on humanitarian values and non-discrimination (Output 3.2 indicator) – CDMC FGD
- % of target districts that have conducted workshop on humanitarian issues for government officials and local opinion leaders (Output 3.2 indicator)
- % of target district chapters that have volunteer mobilization and reporting system in place (Outcome 4 Indicator)
- % of district chapters that have developed and implemented long term development plan (Outcome 4 indicator)
- % of trained staff/volunteers who can recall at least three learnings of the respective training (Outcome 4 indicator)

- % of target district chapters that have availability of at least 12 trained responders (DDRT) available (Output 4.1 indicator)
- % of trained staff/volunteers who are able to correctly recall at least four steps of CBDRR process (Output 4.1 indicator)
- % of district chapters that have at least 5 trained staff and volunteers in health and WASH area (Output 4.1 indicator)
- % implementing districts that have at least 4 of their staff/volunteers trained on volunteer management and leadership (Output 4.2 indicator)
- % implementing districts that have at least 25 of their staff/volunteers trained on OD capacity building (Output 4.2 indicator)
- 0% of the implementing districts that have long term OD plan in place (Output 4.2 indicator)
- Number of volunteers whose insurance is completed in the district (Output 4.2 indicator)
- Number of volunteers that are recognized with prize at least two times during programme period (Output 4.2 indicator)
- % of target communities that have organized one quiz/drawing contest at school level (Output 4.3 indicator)
- % of junior/youth circles involved in awareness generation activities in target communities (Output 4.3 indicator)

ANNEX III: TERMS OF REFERENCE (TOR)

Terms of Reference for:

NEPAL COMMUNITY BASED DISASTER RISK MANAGEMENT IN THE KOSHI BASIN

1. SUMMARY

Purpose: To review the impact of community-based disaster risk reduction (Koshi River Basin) project undertaken by the Nepal Red Cross Society (NRCS) supported by the International Federation of Red Cross and Red Crescent Societies (IFRC) from June 2013 to December 2016, and to analyze key areas for improvement as well as capturing learnings and best practices. The evaluation will specifically look at the design, implementation and sustainability elements of the programmes, with more focus on community-based disaster risk reduction (CBDRR) (including early warning system), health, water, sanitation and hygiene promotion (WASH), livelihood as part of building disaster resilient communities. It is expected that key lessons and recommendations from this evaluation will guide the NRCS to scale up ongoing as well as future DRR initiatives and contribute to broader Red Cross Red Crescent learning, particularly to better address community DRR initiatives/community resilience, taking into account long-term impact and sustainability.
Audience: Nepal Red Cross Society, IFRC, Partner National Societies (PNS), donors and national and local government authorities.
Commissioners: Nepal Red Cross Society and IFRC Nepal Country Office
Reporting to: Evaluation Management Team represented by the Head of National Society Development Unit, IFRC Nepal Country Office
Duration: 35 working days
Timeframe: 24 February – 1 March 2017
Location: Kathmandu, Nepal; with field work in a representative number of programme communities in five programme districts (Saptari, Sunsari, Udayapur, Khotang and Bhojpur) based on agreement with NRCS and IFRC.

2. BACKGROUND

Nepal is one of disaster prone countries in the world exposed to various hazards. Floods, landslides, fires and epidemics are most recurrent hazards whereas lightening; glacier lake outburst floods (GOLFs), avalanches and windstorms are other disasters that have great effects in the country. Besides, earthquake is one of the alarming as well as devastating disasters that has caused huge loss to human life and livelihood in the past. Nepal is ranked in 30th position in relation to the water induced disasters and also it is ranked in 11th position in terms of risk from earthquake[1]. A study conducted by the World Bank classified Nepal as one of the global “hot-spots” for natural disaster[2].

With an observed pattern of increased annual rainfall in the Koshi basin areas, located in the eastern part of Nepal, every year, has caused the loss of human life and widespread property damage through flooding and very frequent changes in course. The Koshi's alluvial fan has fertile soil and abundant groundwater in a region where agricultural land is in great demand.

Thus, the flood-prone area is densely populated and therefore poses a great risk to safety, homes and livelihoods, as was seen most acutely during the floods in 2008. In addition to floods, the people living in the Koshi basin area as also exposed to landslides, drought, wild animal attack, boat capsize, water and vector borne diseases among other others.

The major city to access Koshi basin areas is through Biratnagar. Nepali is the official language used in the region; however, many people speaks Maithili as well. The political and security situation are very much linked to and influenced by national political environment. In the project areas, the administrative structure followed is same as the national structure i.e. central, regional, district, Municipality/VDC and ward/community.

2.1. Programme summary

IFRC implemented an integrated community-based resilience project in the Koshi River basin since 1 June 2013 to 31 December 2016 and World Bank was one of the partners to support this. This project was implemented in 25 most vulnerable communities of 10 village development committees (VDCs), across five districts (Saptari, Sunsari, Udayapur, Khotang and Bhojpur) of Nepal. Health, WASH, DRR, livelihood, organizational development and capacity building were the major components of the project carried out in areas that are at risk of floods in the plains (Terai), areas at risk of landslides in the hill and mountain districts. The table below summarises the project coverage in terms of geographical locations and number of people.

District	VDCs	Communities (ward numbers)	No. of household	Male	Female	Total
Bhojpur	Jarayotar	Ward No. 1, 2 & 3	352	773	889	1,662
	Charambi	Ward No. 4 & 5	187	430	464	894
Khotang	Badahare	Ward No. 1, 2 & 4	103	239	283	522
	Bahunudada	Ward No. 3 & 5	149	390	350	740
Saptari	Ko-barsain	Ward No. 2 & 4	212	602	594	1,196
	Bhardaha	Ward No. 1, 5 & 6	735	2,119	2,126	4,245
Sunsari	Paschim Kusaha	Ward No. 3 & 4	1,090	2,403	2,680	5,083
	Prakashpur	Ward No. 4, 5 & 9	763	2,107	2,099	4,206
Udayapur	Rampur	Ward No. 1, 3 & 5	1,145	2,422	2,810	5,232
	Tapeshwori	Ward No. 1 & 5	1,125	2,350	2,795	5,145
	Total	**25 communities**	**5,861**	**13,835**	**15,090**	**28,925**

In addition to the World Bank, NRCS and IFRC have worked in partnership with American Red Cross, Japanese Red Cross Society, Norwegian Red Cross, and Zurich Alliance for the project. Similarly, collaboration with Practical Action has been ongoing for early warning systems (EWS), livelihoods and project documentation.

Within the country, NRCS maintains a close cooperation and coordination with the Department of Hydrology and Meteorology for early warning system and with Nepal Risk Reduction Consortium (NRRC) Flagship four member organisations such as UN agencies including UN OCHA, Ministry of Home Affairs, Ministry of Federal Affairs and Local Development (MoFALD) as well as district authorities and grass government offices such as District Administration Office, District Development Committee Office and VDC Offices.

NRCS with support of IFRC established an agreement with the Nepal Telecom (NTC) for delivering disaster risk reduction messaging through TERA phone messaging system.

2.2. Project result framework

a. Project goal:

25 target communities in the Koshi region have reduced their exposure and vulnerability to the impact of disasters such as floods, landslides and other hazards, including as those due to climate change, and have their overall resilience enhanced within three years.

b. Outcomes and expected results

Key result areas of Koshi River community-based disaster risk reduction (CBDRR) include following outcomes and outputs as laid out in the table below:

No.	Expected outcomes	Expected outputs
1.	**Outcome 1:** Enhanced capacity of the target communities to plan for and to respond and recover effectively from identified hazards.	**Output 1.1**: Participatory risk assessment carried out at VDC and community level as a basis for planning.
		Output 1.2: DPRP/DRM plan developed and tested.
		Output 1.3: VDC and community DM committees are established and trained on community-based disaster risk reduction
		Output 1.4: Community response teams (first aid and search and rescue) formed trained and equipped.
		Output 1.5: Community funds established to provide support to the affected households in emergency.
		Output 1.6: Target communities have small scale community-based mitigation (structures and non-structures) for effective DRR action.
		Output 1.7: Livelihood capacity of the target communities is improved.
		Output 1.8: Information sharing and coordination mechanism is developed with government, UN, I/NGOs and civil society organizations for optimizing mutual collaboration and cooperation (at local, national and global level).
2.	**Outcome 2:** Enhanced knowledge and behaviour change in the target communities on effective disaster risk reduction procedures and measures.	**Output 2.**1: Early warning system with appropriate technology established and tested.
		Output 2.2: Established mechanisms for improving community knowledge on identified hazards.
3.	**Outcome 3:** Social inclusion and a culture of non-violence and peace is promoted through the project.	**Output 3.1**: Mechanisms, skills, tools and resources in Beneficiary Communication of NRCS are improved.
		Output 3.2: Dissemination of humanitarian values through awareness campaigns, community trainings (embedded in other trainings), youth camps and workshops with local stakeholders.
4.	**Outcome 4:** Increased NRCS capacity to support community	**Output 4.1**: NRCS staff and volunteers are trained on relevant areas to support communities.

	DRR intervention at the community level.	**Output 4.2**: Mechanisms, skills, tools and resources in OD (particularly on volunteer development and leadership skills) of concerned branches/communities are enhanced.
		Output 4.3: Strengthened support and mobilize JRC/ YRC to extend awareness related to project theme.

Detailed logframe and project activity plan can be found in the project proposal document.

3. PURPOSE AND SCOPE

3.1. Purpose (overall objectives)

This evaluation is part of the CBDRR project implemented between June 2013 to December 2016. The evaluation will determine to what degree the results have been achieved, quality, effectiveness, relevance and how the methodologies used have facilitated and contributed to the results attained. Particular focus will be given to DRR, livelihood, WASH, health, organizational development and humanitarian value in line with Red Cross principle as thematic components of integrated programme, providing recommendations on how this capacity can be further strengthened at both NRCS headquarters (HQ) and district chapter levels.

The desired result of the evaluation is to provide best practices, lessons learned, and recommendations that may inform NRCS, IFRC and other Movement partners in establishing better guidelines, priorities, plans and implementing ongoing or future community-based programming. In addition, the lessons learned will be used to improve and scale up this project to other programme districts of NRCS.

3.2. Scope

This evaluation will be concentrated in five programme districts (Bhojpur, Udayapur, Sunsari, Khotang and Saptari) with focus on target communities as well as in line with expected outcomes and outputs. A representative number of VDCs/municipalities in the district will be identified in agreement with NRCS and IFRC.

In addition to the NRCS headquarter (HQ), involvement of the NRCS district and sub-chapters' staff and volunteers will be important to assess the impact of the Koshi CBDRR programme implemented between June 2013 to December 2016. NRCS has a presence in the project areas through its district chapters and sub-chapters in most of the target VDCs. Involvement of the community members as well as Community Disaster Management Committees (CDMC) and other local stakeholders participation need to be considered while carrying out the evaluation on the field.

4. OBJECTIVES AND CRITERIA

4.1 Objectives

The evaluation should highlight good practice, lessons learnt and areas of improvement to inform future programming, together with recommendations on how to proceed.

The evaluation aims to:

i. Assess the extent to which interventions under the programme have achieved their results at outcome level in line with the baseline assessment report.

ii. Determine the impact on communities in terms of nine minimum characteristics of a disaster resilient communities (as envisaged in flagship 4 of Nepal Risk Reduction Consortium)[3].
iii. Assess the capacity of the NRCS (particularly the district chapter levels) to follow up effectively and make recommendations on how this capacity can be further strengthened and sustained.
iv. Gather further recommendations from the communities on the next steps.
v. Assess the level of ownership taken by the communities after the handovers.

The role of gender and social inclusion should be taken in account where relevant. In addition, the evaluation should be designed in way that NRCS is capable of using the designed assessment tool for future CBDRR programme in Nepal.

4.2 Criteria

The following criteria will be used to guide the evaluation recommendations. Based on appropriateness and relevance of below criterion, the most relevant ones will be considered in consultation with the Evaluation Management (EMT).

a. Relevance and appropriateness

1. How effective were the interventions in identifying the most vulnerable among the affected population and responding appropriately to their particular circumstances?

    - Was the community/beneficiary selection process fair, appropriate and effective?

    - What strategies were used to ensure quality, timely and relevant delivery to target beneficiaries including mechanisms to capture beneficiary complaints/feedback?

2. Were the activities carried out appropriate and sufficient to meet intended needs?

3. To what extent were the community involved in the assessment, planning, design, implementation, and monitoring of the interventions?

4. Were intervention strategies and priorities in line with local customs and practices of the community people, the priorities of the government authorities and other key humanitarian and development actors?

5. Were the interventions in line with NRCS and IFRC strategies, standard operating procedures (SOPs), guidelines and Red Cross fundamental principles?

6. What problems and constraints were faced during implementation and how did the interventions manage these?

7. What important lessons have been identified that can improve future interventions in the Nepal and be shared more widely?

8. Acceptance by the communities in terms of usefulness of project activities and their participation?

b. Coverage

9. Did the interventions reach all the vulnerable groups in communities, including those in remote areas who would otherwise have not been addressed?

10. Were there exclusions or differential impact between groups based on their location?
11. How could the coverage be improved?
12. How relevant were the coverage areas (5 districts and VDC's)?

c. Efficiency/effectiveness/accountability

13. Did the interventions meet needs of the communities?
14. Were there adequate resources (financial, human, physical and informational) available and were they utilized effectively and efficiently?
15. Were systems, procedures and control mechanisms adequate to ensure smooth delivery of assistance and protect the National Society and IFRC from financial loss and reputational risk?
16. Were adequate tracking systems in place to ensure transparency and accountability?
17. Were complaints/feedback mechanisms put in place for community questions and concerns to be answered? What were the concerns raised by communities during the intervention?
18. How effective were processes for planning, monitoring and quality management, (e.g. use of assessment data, internal reviews and other quality assurance mechanisms)?
19. To what degree was integration achieved and how could this be further strengthened?
20. Would greater investment in CBDRR have resulted in more efficient, effective and less costly interventions?
21. How were programme activities managed and coordinated, particularly between NRCS and IFRC as well as NRCS headquarters, district chapters and sub-chapters and local authorities?
22. Was the capacity of the human resource system enough to fulfil the needs of the interventions and communities? Were personnel skills utilized in an efficient and effective manner?
23. Was there adequate and relevant staffing including: a) decisions concerning the number of staff members needed, where, when, with what competences, at what levels, and at required availability and b) decision-making chain regarding staffing?
24. Did the review workshops and meetings result in NRCS addressing the identified capacity and implementation gaps?
25. Did NRCS have sufficient capacity, knowledge and appropriate skills to undertake the project? What changes within NRCS/IFRC is required to undertake such projects?

d. Impact

26. What evidence (both direct and indirect) is available that the interventions contributed to the reduction of disaster risk and enhancing disaster preparedness and disaster resilience of targeted communities?
27. What impact did the programme brought on how the communities cope with future disasters?

e. Connectedness and Sustainability

28. Did the programme result in enhanced institutional capacity of the NRCS district chapters, in terms of: a) ability to implement DRR programmes, b) ability to support to the programme communities after programme is phased over and c) ability to work with local authorities in DRR programmes in the future?
29. Did the support of the IFRC strengthen and complement the effort of NRCS headquarters/chapters or hinder them?
30. Has the impact of programme activities been sustained following completion of the interventions?
31. Did the support provided to affected communities enable them to enhance their resilience to withstand possible future hazards?

5. METHODOLOGY

The methodology will adhere to the IFRC Framework for Evaluations, with particular attention to the processes upholding the standards of how evaluations should be planned, managed, conducted, and utilized.

An **IFRC evaluation management team** will manage and oversee whole of the final evaluation process and schedule and, with the evaluators, ensure that it upholds the IFRC Management Policy for Evaluation. The EMT will consist of three people (Head of NSDU, NRCS DM director, IFRC PMER) not directly involved with the programme implementation.

The **external evaluator** will provide an independent, objective perspective as well as technical experience on evaluations, and will be the primary author of the evaluation report. S/he will not have been involved or have a vested interest in the NRCS programme being evaluated, and will be hired through a transparent recruitment process (preferably, someone who is already working or present in Nepal), based on professional experience, competence, ethics and integrity for this evaluation. The **evaluation team leader** will report on progress or challenges to the evaluation management team.

NRCS and IFRC programme focal points will work with the evaluator in the evaluation process to provide programme prospective and designing of appropriate evaluation methodology. The detailed evaluation design is to be created by the external evaluation team; however, the following should be taken into account:

- Sampling method is to be decided by the evaluator, as long the final sample to be evaluated on includes all Movement partners involved in the floods operation interventions, municipalities, sectors of the intervention and the 'most vulnerable' beneficiaries.

- Data collection methods and pace are to be decided by the evaluator, in consultation with the NRCS and IFRC country office focal person(s), but should take into account the reality of difficult-to-reach districts. One-on-one interviews, discussion groups and key informant interviews are encouraged. For data analysis both qualitative and quantitative data to be used. The evaluator should be using multiple data sources both from primary and secondary sources. For secondary sources, latest Census report, district disaster profile data of local government, District Response Plan as well as VDC DRM Plan should be considered during data triangulation stage.

- The evaluation team should visit a representative number of VDCs/Municipalities in Koshi region where CBDRR programme was implemented. The total evaluation work is estimated at 35 days including travel time.

- Interviewing key stakeholders directly or indirectly involved and/or participated in the programme implementations. Interviewees will include, NRCS staff and volunteers, IFRC, and PNS personnel (e.g. managers, field officers, direct implementers, volunteers and community mobilizers), beneficiaries (e.g. NRCS district chapters' officials, sub-chapters' Executive Committee members, volunteers, 'most vulnerable' beneficiaries including children, pregnant and lactating women, the elderly, and families with high dependency ratios), and potentially, non-beneficiaries or people who did not receive assistance including local government authorities (e.g. District Administration Office, VDC office, Department of Hydro and Metrology local representatives, CDMC). These may be in the form of key informant interviews (KII), focus group discussions (FGDs) or other methods, at the discretion of the evaluation team. Interviews will also take place at the Kathmandu level to include perspectives from high-level management of NRCS, IFRC, and PNS.

- Appropriate training (estimated 1-day) should be organized for the chapter and facilitated by the evaluation team to provide volunteers with the knowledge and practice to conduct interviews/fill questionnaires in the evaluation process as required.

The evaluation team will be responsible to clearly outline the support needs in-county in their inception report. This will be agreed with NRCS and IFRC based on resources available.

6. DELIVERABLES (OR OUTPUTS)

Some of the key deliverables are as follows:

1. Inception report and detailed work plan and data collection plan for the evaluation.
2. Draft report to be submitted one week after the conclusion of the evaluation.
3. Facilitation of a lessons learned workshop to present key preliminary evaluation findings to NRCS and IFRC in Kathmandu, including an opportunity for key stakeholders to clarify any immediate points.
4. Final evaluation report of no more than 20 pages (excluding executive summary and annexes) which highlights key conclusions and recommendations[4].
5. Additional deliverables such as photos, videos, presentations from the field should be submitted to the EMT.

Suggested report outline

Content	Description
Executive Summary	Summarize the overall findings of the evaluation with key conclusions and not more than 10 key recommendations. Executive Summary must be specific to the Evaluation and clearly outline the specific context of the interventions.
1. Background	A general section that will outline the overall objectives, aims, intervention strategy, policy frameworks, targets, main stakeholders, financial frameworks, institutional arrangements.
2. Methodology	Outlines the overall approach used and the rationale why the approach used, the tools applied and the key assumptions. It will focus on consideration for efficiency, effectiveness, relevance and sustainability, in function of the internal and external issues.
3. Comparative findings	Outlines the findings of the evaluation.
4. Conclusions	Outlines the main conclusions that have emerged from the findings.
5. Lessons learned and recommendations	General overall recommendations, including on cross-cutting issues that affect not only the specific intervention.

NRCS-IFRC Evaluation Management Response to Recommendations for the Nepal Community-Based Disaster Risk Reduction Management (CBDRM) project, in Koshi River Basin

Background information:

- **Date and duration of evaluation:** 1 to 31 March 2017 (31 days)
- **Evaluator/s:** Progress Inc., New Baneshwor, Kathmandu, Nepal
- **Evaluation Management Response Team members:** NRCS and IFRC
- **Background Information**: Classified as a global 'hotspot' (World Bank, 2005), Nepal is vulnerable to multiple natural disasters, suffering an average of 900 natural disasters each year resulting in lost lives and damaged livelihoods (MoHA, 2009). The Natural Disaster Relief Act, 1982 of Government of Nepal (GON) is the first Act so far that recognizes earthquake, fire, storm, flood, landslide, heavy rainfall, drought, famine and epidemics as disaster. In the same context, IFRC implemented an integrated community-based resilience project in the Koshi River basin between 1 June 2013 to 31 December 2016. In addition to the World Bank, Nepal Red Cross Society (NRCS) and IFRC worked in partnership with the American Red Cross, Japanese Red Cross Society, Norwegian Red Cross, and Zurich Alliance for this project. The project aimed to support 25 vulnerable communities from 5 most vulnerable districts, in the Koshi basin. The project districts include Saptari, Sunsari, Udayapur, Khotang and Bhojpur.

  In March 2017, IFRC on behalf of NRCS commissioned a final evaluation of this three years project. The final evaluation aimed to review the impact, lessons learnt well as to capture the best practices of the community-based disaster risk reduction (Koshi River Basin) project. An independent national consultant looked at the design, implementation and sustainability elements of the project, focused on an integrated CBDRR components, including early warning system, health, water, sanitation and hygiene promotion (WASH), livelihood as part of promoting disaster resilient communities. The findings and recommendations from this evaluation will guide NRCS's plan to scale up ongoing as well as future DRR initiatives in Nepal. This evaluation will also contribute to broader Red Cross Red Crescent learning, particularly to better address community DRR initiatives/community resilience, taking into account long-term impact and sustainability.

Summary of Management Response:

The evaluation was useful to assess the extent to which interventions under the programme have achieved their results, impact on communities in line with the 9 minimum characteristics of a disaster resilient communities (as envisaged in Flagship 4 of Nepal Risk Reduction Consortium) and capacity of NRCS district chapters' capacity on DRR. The recommendations will be useful to scale up DRR interventions to new areas in Koshi basin and improve future DRR programmes planned for 2018 and beyond.

There are 28 recommendations that include programme related (15), other recommendations (4), awareness and capacity building (4), advocacy and lobbying (2) and sustainability related (3). Of which, NRCS accepted and/or partially accepted most of the recommendations (10 each) whereas 8 recommendations have been rejected with rationales.

1. Programme Recommendations

Recommendation 1.1: The medium for information dissemination should be selected to assure maximum coverage.

Mediums like radio and community meetings can be utilized in communicating with the community about the orientation and initiation of the program. Moreover, the frequency of information dissemination should be increased at different time slots.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
Partially accepted	*Appropriate FM radios were selected based on the consultation with different groups such as youth and women, farmers who were also the target group of the broadcasted messages. Due to difficult topography, the transmitted messages did not reach and/or heard by all the community people. Hence, different time slot was selected based on the appropriateness to the target groups.*	*The recommendations will be taken into consideration while implementing future projects; especially selection of the radio stations, frequency and time slots for transmission of risk reduction messages.*	*Planning phase of next CBDRR project starting from July 2017*	*Project Coordinator, NRCS*

Recommendation 1.2: Providing a tailored solution to these population would make the project successful in terms of being inclusive in its true sense.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Accepted**	*This one of the important lessons learnt through this pilot project. NRCS will design more tailor-made activities based on target groups.*	*Tailored made solution to reach differently able people in the project area. For this purpose, disability profile will be collected in the inception phase of the next phase project.*	*Inception phase of next CBDRR project starting from July 2017 onwards*	*Project Co-ordinator, NRCS*

Comments: Nothing to comment.

Recommendation 1.3: A disability mapping via YRC and JRC would be instrumental in identifying the prevalence of people with different types of disability and designing the awareness campaign with a customized approach.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Accepted**	The 7th Development Plan of NRCS highlighted this as a key component to be delivered through longer-term development programmes. Hence, the next phase of CBDRR project is focused on disability issues.	*As mentioned above, disability profile will be collected in the inception phase of the project. Appropriate solution will be planned accordingly.*	*Inception phase of next CBDRR project starting from July 2017 onwards*	*Project Co-ordinator, NRCS*

Recommendation 1.4: There should be strong sharing mechanism in the community from the people involved directly in the process. This can be done through door-to-door awareness through social mobilization.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Accepted**	*NRCS has 5 social mobilizers and Red Cross volunteers in each district who are instrumental in community-based activities. NRCS will further promote its CRM mechanism in project as well as awareness on 1130 hotline numbers and social medias such as Facebook.*	*Trained human resources will be mobilized for the awareness activities such as door-to-door visits with emphasis on knowledge transfer to other community people.*	*Next CBDRR project starting from July 2017*	*Project Coordinator, NRCS*
Comments: nothing.				

Recommendation 1.5: There needs to be high level of community involvement to understand the rationale of developing DRR plans. Therefore, integration of DRR as a priority area in the 14-step planning process will not only ensure community participation, but also will enable mainstreaming DRR in government priorities for the long-term sustainability.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Partially accepted**	*DRR planning process requires certain level of technical knowledge. To provide required knowledge to CDMC members, a CBDRR training was provided. Similarly, appropriate technical guidance was provided to CDMC members through the project staff. As there are up to 25 members in each CDMC, their*	*Appropriate attention will be given in DRR planning to ensure that all the CDMC members understand the rationale of DRR plan. More attention will be given on social mobilization. For this purpose, Social Mobilizers will be recruited within the communities to ensure that they can adequately interact with the community people as required.*	*Next project starting from July 2017 onwards*	*DM Director, NRCS*

	participation throughout the planning process was varied.			

Recommendation 1.6: The inadequate capacity of the community members to link VCA with DRR plans and all DRR activities is largely because of inadequate social mobilization- the limited involvement of project to continuously share how each DRR activity is linked with VCA and DRR plan. It is recommended to intensify social mobilization building skills of the staffs to link the VCA to DRR plans and VCA and DRR plans to DRR activities.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Accepted**	*Social mobilization under the project framework will be intensified as recommended. Social Mobilizers were from outside the community. Project team is now in place for next phase CBDRR project starting from July 2017. NRCS will use existing social mobilizers and volunteers to share project related information with the target communities.*	*In the next phase of the project, SM will be selected within the project communities. This will allow the project to reduce rapport building time and can concentrated on the social mobilization al5ready from the inception phase of the project.*	*Planning phase of the next project starting from July 2017*	*Project Coordinator, NRCS*
Comments: *Nothing.*				

Recommendation 1.7: There should be knowledge transfer from the person trained to others.

To retain the learning for the existing response teams, follow-up trainings and post-training support should be provided even after the programme is terminated.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Partially accepted**	*Trained human resources can be mobilized by the project within the project period. However; mobilizing them after termination of the project cannot be ensured.*	*Trained human resources will be mobilized for awareness generation activities.*	*Development phase of the next project – July 2017 onwards*	*Project Coordinator, NRCS*

Recommendation 1.8: CDMCs can be familiarized with different alternatives to accumulate and diversify funding. One measure could be through livelihood support. Communities can be provided diversified livelihood options with the clause to ensure that certain portion of the income would be contributed to the emergency fund.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Rejected**	*Emergency fund management and livelihood support to selected families are for different purposes. Link between the two may be established, however, this depends on the community context. Livelihood support is for ultra-poor families exposed to a hazard whereas each community member can contribute to the emergency fund.*	*N/A*	*N/A*	*N/A*

Comments: *Nothing.*

Recommendation 1.9: Linking people with existing institutions like cooperatives, and savings group, and market enables them to be better prepared for the disaster.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Partially accepted**	*Existing community groups had been considered as capacities of the communities and were utilized a resource for different project activities. However; due to provision made in the Local Disaster Risk Management Planning Guideline such groups are not eligible to be a focal point for the DRR planning and actions.*	*Potential linkages with existing institution will be explored in the inception phase of next projects. Linkage will be established if found appropriate and beneficial for communities.*	*Next project starting from July 2017*	*Project Coordinator, NRCS*

Recommendation 1.10: Creating linkages with the local bodies for mobilization of local resources is also important in this aspect. Coordination with DADO, DLSO and other local bodies can be effective to strengthen livelihood options of the people. The linkage with the DADO and DLSO will provide livelihood support options (access to seed, access to livestock) for the people, thereby increasing their purchasing power and hence, enhance their life style. Likewise, it can also include bringing a District Public Health Office (DPHO) staff in the communities to orient on epidemic risk during or after monsoon. Another example is bringing staff from DADO/DLSO to speak on health risks to crops and livestock.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Rejected**	*There was collaboration and cooperation with different government offices. However; this was varied from district to district because of plan of the respective government offices. For example, Khotang district worked with District Agriculture Office for goat shed improvement, whereas Bhojpur district worked with District Drinking Water Office for construction of drinking water scheme. So, the level and area of cooperation varies based on plan, resources and priority of the respective government offices. Hence, approach of the project was to capitalize available opportunities of collaboration and cooperation rather than establishing standard collaboration.*	*N/A*	*N/A*	*N/A*
Comments: *Nothing.*				

Recommendation 1.11: The stronger linkage with local level government is crucially important.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Accepted**	*Due to absence of elected representatives and limited presence of the bureaucrats of the local bodies, required advocacy and linkage was below satisfactory level.*	*Establish regular information sharing mechanism among the CDMC, project staff and the elected representative of the local bodies.*	*Inception phase of the next project starting from July 2017*	*Project officer at district level and DM direct at HQ level*

Recommendation 1.12: A separate fund for operation and maintenance can be established. The 5% development fund assigned for DRR activities from local bodies should support for such activities.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**

☐ **Partially accepted**	*Instead of establishing separate fund for operation and maintenance, the existing emergency fund can be utilized for operation and maintenance. Managing different funds by the same entity is difficult. Regarding the 5% allocation for DRR by government, we can't influence the government decision but will advocate this issue.*	*N/A*	*N/A*	*N/A*
Comments: *Complete per instructions above.*				

Recommendation 1.13: The restructuring process of the local bodies in Nepal in the federal system is another opportunity to ensure that adequate resources are allocated for DRR work at the local level.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Rejected**	This is also expectation of the project from the concerned local bodies/government. The project is continuously advocating for this. However; its beyond project control to directly influence government's decision.	*N/A*	*N/A*	*N/A*

Recommendation 1.14: While modern EWSs are needed, it is equally important to continue promoting and strengthening traditional EWSs. Overall, a mixture of traditional and modern EWS is expected to contribute to the sustainability of such systems.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Accepted**	*Koshi basin project promoted and established EWS for floods in 15 communities. To strengthen EWS further will one of the priorities in the next phase of the project.*	*Possibility of using traditional methods or mixing with modern methods of communication for EWS will be analysed before establishing EWS in next project. Secondly, training, linkages and communication mechanisms with DEOC will be continued.*	*Inception Phase of next project - July 2017 onwards*	*Project Coordinator, NRCS*
Comments: *Nothing.*				

Recommendation 1.15: It is important that this is transferred to the non-intervention communities as well. Such replication and scaling up could be possible by organizing exchange visits between intervention and non-intervention communities and by mobilizing VDMCs to take care of DRR work across all VDC.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Rejected**	*The project activities were designed in such a way that focus remained on the targeted communities. Due to budget as well as geographical constraints exchange visits between target and non-intervention areas was not possible. However, NRCS with the support of IFRC and other partners has plan to scale up this model to non-intervention communities in 2018.*	*N/A*	*N/A*	*N/A*

2. Other Recommendations

Designing of the project

Recommendation 2.1: VCA has been conducted by the project after the project started as it is a normal practice. But the presence of NRCS across the districts can be used to conduct exercises before the project is designed. Training to NRCS sub-chapter members may be a cost-effective strategy NRCS can employ in this regard. Although, some projects and the communities where VCA is conducted may not be selected, the criteria for selection a pre-requisite to be shared to all participants of VCA not to increase expectation, all participants will be sensitized on the gravity of problem and also their own capacities.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Rejected**	*VCA is robust process that requires technical knowledge, skills and resources. NRCS Sub-chapters have limited skills, knowledge and resources. Additionally, VCA process and tools requires some customized approach based on the community context and priorities of partners. Hence initiating VCA before project start is not possible.*	*N/A*	*N/A*	*N/A*

Comments: *Complete per instructions above.*

Recommendation 2.2: Though project has a substantial focus on risk informed communities, risk sensitive interventions but transformative approaches can be strengthened (financial institutions, markets insurance systems)

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
Rejected	*Nepal is under political transition with ongoing restructuring process both at central and district levels. This recommendation can be considered once more clarity at local level is available.*	*N/A*	*N/A*	*N/A*
Recommendation 2.3: Complaint/grievance handling mechanisms can be improved where beneficiaries need to have right to disagree, right to information and right to lodge complaints				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Accepted**	*Since the complaint response mechanism was established in half way of the project, the purpose and process of this mechanism couldn't be communicated to community people effectively.*	*Complaint handling mechanism will be included from the beginning of CBDRR projects. The NRCS toll free number 1130 will be used for this purpose.*	*Next project – July 2017 onwards*	*DM Director, NRCS*
Comments: Nothing.				
Recommendation 2.4: Research component as a learning organization, NRCS could have built in some researches within the project. As for example, what works and what does not work in terms of modern EWS; what are the forces and factors contributing to a functional DMC, etc. These researches could strengthen the work though tailoring the interventions. Alternately, a real-time evaluation could always be useful to make necessary adjustments in the project				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Partially accepted**	Research component can be included in the project based on the available resources. However; this shouldn't be mandatory component in every project.	Research component will be added in a CBDRR project in consultation with partners.	*Planning phase of next CBDRR project – July 2017 onwards*	*DM Director, NRCS and IFRC*
Comments: *Complete per instructions above.*				

3. Awareness raising and capacity building

Recommendation 3.1: The project has enhanced the knowledge of the community members on DRR. However, more entertaining ways of awareness raising activities such as street dramas can reach more people and will be effective in future interventions.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Partially accepted**	*Under non-structural mitigation activities such as video shows, street drama, orientation are planned for next phase of project.*	*This will be taken into consideration while designing awareness activities in next project.*	*Inception phase of next project – July 2017 onwards*	*Project Coordinator, NRCS*
Comments: *Nothing.*				
Recommendation 3.2: The project did make use of trilogy emergency relief application (TERA) for risk reduction messages to the project communities. By working on the location tracker, the same system can be used to messaging people since mobile technology is widely prevalent in all the intervention districts.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Rejected**	*The scope of TERA system is wide. However; due to technical issues raised by telecom provider (NTC) the system was not implemented in full scale. Despite continuous follow up through focal points and management of NRCS and IFRC, NTC was found to be unwilling to its full operation.*	*N/A*	*N/A*	*N/A*
Recommendation 3.3: Some of the awareness raising activities such as radio programs/messages have been useful to an extent but unless listener's survey was conducted, and radio stations and time are agreed with communities, radio messages may not be meeting the targeted audiences. Voices of the communities in the radio programs enable communities to listen to radios. Feedback sessions on radio messages are important to understand the type of information they require. Such feedback can be received through regular CDMC meetings.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Partially accepted**	*Feedbacks about radio stations and transmission time were collected before deciding about the station and time.*	*Listeners survey and community feedback sessions will be incorporated in future if awareness through radio is to be planned.*	*Next project – July 2017 onwards*	*Project coordinator, NRCS*
Comments: *Complete per instructions above.*				
Recommendation 3.4: The project has not trained all beneficiaries expecting that the trainees chosen for a training package will share the learning in the community with other members. As it was found that not all trained participants share their learning, it is recommended to put in place a sharing mechanism.				

This means cascading training requires follow up to make sure the information being transferred is accurate and that those trained are indeed passing on information to other community members.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Accepted**	*This is a key lesson learnt and NRCS is committed to promote in the next phase of CBDRR programme in Koshi basin.*	*Trained human resource will be mobilized for awareness activities and sharing their learnings to other community people through community meeting and awareness sessions.*	*Implementation phase of next CBDRR project July 2017 onwards*	*Project Coordinator, NRCS*
Comments: *Nothing.*				

4. Advocacy and lobbying **Recommendation 4.1**: Though stakeholders are involved in trainings, there were no conclusive evidences to show that communities were actively engaged in advocacy work. The project has successfully integrated and mainstreamed DRR, health, WASH, OD in designing of the programme. Future focus should be in advocating for taking a mainstreaming approach in addition to stand alone approach (i.e. integrating DRR into interventions in education, agriculture, WASH/health, etc.) in government priorities.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Partially accepted**	*Though, the project worked together with the government's local bodies, the advocacy at national level was not included in the project. Thus, the project did advocate at local level only.*	*NRCS together with IFRC will continue advocacy in an integrated approach through flagship 4 (integrated CBDRM platform).*	*First quarter of 2018*	*DM director, NRCS and IFRC focal point*
Comments: *Nothing.*				
Recommendation 4.2: This is also a sustainability issue, but, despite the emergency fund in communities, not all communities have been able to diversify this fund. A structured advocacy plan to raise funds form line agencies and stakeholders will increase the chance of sustaining this fund.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**

☐ **Accepted**	*Although the emergency fund was effective in some of the target communities, but sustainability remained challenging.*	*Lobby/advocacy for the contributing by different stakeholders for the emergency fund will be considered depending on the availability of resources of existing stakeholders at communities and districts. Such advocacy will be linked to RCM advocacy effort for Disaster Law, positioning RC in government mechanism, etc..*	*July 2017*	*DM Director/Legal Director, NRCS*

5. Sustainability

Recommendation 5.1: It is recommended that NRCS district chapters interact with communities, time and often, to track the sustainability of the project. Low-cost follow up activities such as minimum support to update and operationalize the DRM plans is a clear need in these communities. A simple phone call to DMC members could be another cost effective alternative way of follow up.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility
☐ **Partially accepted**	*As the CDMC is governed by local government and NRCS is a member of the CDMC. Hence, it is not the proper mechanism to directly follow up to the CDMCs after project is phased over. However; NRCS will follow up to CDMCs for post project activities and sustainability.*	*Follow up to CDC for post project activities (twice a year).*	*First quarter of 2018*	*Project Coordinator, NRCS*
Comments: *Nothing.*				

Recommendation 5.2: Easy handbooks for DMCs and task forces are needed as there is an issue of retention of trained community members.

Management Response	Decision Rationale	Action/s to be taken	Timeframe	Responsibility

☐ **Accepted**	*NRCS already providing printed copies of training materials, government guidelines and awareness raising messages to the trained community members. In next phase of the project, some refresher training been planned and also ways will be explored to engage them through upcoming project activities.*	*Hand book or reference materials will be developed for CDMCs and trained human resources.*	*Next project starting from July 2017 onwards*	*Project Coordinator, NRCS*
Recommendation 5.3: Livelihood has been one of the project components, but as communities shared that they may not have adequate resources to implement the plan, support to communities through income generation activities should always supplement the DRR interventions. It will only increase the resilience of the beneficiaries by making them more prepared in case of disaster, but also help them contribute to the emergency fund.				
Management Response	**Decision Rationale**	**Action/s to be taken**	**Timeframe**	**Responsibility**
☐ **Rejected**	*Individuals were supported to start up selected livelihood activity primarily who have been exposed to hazards and are economically vulnerable families. From past experience, such support was provided in a form of community revolving fund, which, in many cases, were not found to have reached the most economically vulnerable groups. To ensure that the livelihood support is reached the economically most vulnerable people, the livelihood support was targeted to individual families rather that community groups. According to our experience, targeting to individual families is more beneficial for the poorest of the poor families. Since financial capacity of economically vulnerable people is critical in building their resilience, any effort for the same will certainly contribute to overall community resilience.*	*N/A*	*N/A*	*N/A*
Comments: *Nothing.*				