



Nepal Earthquake Recovery Program – Utthan | End of Program Evaluation Report

July 2019

Abbreviations

ANC	Antenatal Care
ARC	American Red Cross
BBS	Build Back Safer
BCCC	Behaviour Change Communication
CBHFA	Community-based Health and First Aid in Action
CBO	Community Based Organization
CDMC	Community Disaster Management Committee
CEA	Community Engagement and Accountability
CfW	Cash for Work
CHAST	Children’s Hygiene and Sanitation Training
CLTS	Community-Led Total Sanitation
CRC	Canadian Red Cross
CSO	Civil Society Organisation
DADO	District Agricultural Development Office
DAO	District Administrative Office
DDC	District Development Committee
DDRC	District Disaster Relief Committee
DDRT	District Disaster Response Team
DLSO	District Livestock Services Office
DME	Design Monitoring and Evaluation
DPHO	District Public Health Office
DRR	Disaster Risk Reduction
DUDBC	Department of Urban Development and Building Construction
DWSS	Department of Water Supply and Sewerage
EoP	End of Program
ERO	Earthquake Response Operation
FCHV	Female Community Health Volunteer
FGD	Focus Group Discussions
GESI	Gender Equity and Social Inclusion
GoN	Government of Nepal
HH	Households
HRRP	Housing Recovery and Reconstruction Platform
ICB	Institutional Capacity Building
IFRC	International Federation of Red Cross and Red Crescent Societies
IGA	Income Generating Activity
ITT	Indicator Tracking Table
KII	Key Informant Interview
LDRMC	Local Disaster Response Management Committee
LLIN	Long Last Insecticidal Nets
LoP	Life of Program
M&E	Monitoring and Evaluation
MVC	Most Vulnerable Children
NRA	National Reconstruction Authority
NRCS	Nepal Red Cross Society
ODF	Open Defecation Free
ODK	Open Data Kit
O&M	Operation and Maintenance
ORS	Oral Rehydration Therapy
NGO	Non-Government Organisation
NRA	National Reconstruction Authority

NRCS	Nepal Red Cross Society
PASSA	Participatory Approach to Safer Shelter Awareness
PHAST	Participatory Hygiene and Sanitation Transformation
PNGO	Partner Non-Government Organisations
PNS	Participating National Societies
RAG	Recovery Action Group
RCM	Red Cross Movement
SC	Steering Committee
SLTS	School-led Total Sanitation
SM	Social Mobiliser
SpRC	Spanish Red Cross
ToR	Terms of Reference
ToT	Training of Trainers
TPO	Transcultural Psychosocial Organization Nepal
TSC	Technical Support Centre
UNDP	United Nations Development Program
VCA	Vulnerability and Capacity Assessment
VDC	Village Development Committee
WASH	Water, Sanitation and Hygiene
WUSC	Water Users and Sanitation Committees

Final Evaluation of the Nepal Earthquake Recovery Program Utthan.



This report shows the results of an evaluation of the program “Nepal Earthquake Recovery Program Utthan” In partnership with the American Red Cross, Spanish Red Cross and Canadian Red Cross, the Nepal Red Cross Society implemented this program between October 2015 and September 2019 with funding from the Red Cross partners. The evaluation was carried out by the Nepal Development Research Institute and NDI Consulting.

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Executive summary

This report presents the end of project evaluation findings of the American Red Cross supported, Nepal Earthquake Recovery Program Utthan. Launched in October 2015, the program set out to facilitate the sustainable recovery of vulnerable earthquake-affected households in 19 villages in Nuwakot, Rasuwa and Makwanpur districts. Targeting vulnerable earthquake-affected households and communities, the program sought to increase access to safe and sustainable infrastructure and basic services and increase household and community ability to self-organize and take actions to recover quicker, by adopting improved resilience practices through a community-driven, integrated approach. This included **strengthening** household and community capacity to build safer shelter and WASH infrastructure; **reduce** health risks by practicing healthy behaviours; **enhance** sustainable livelihoods; and **promote** organisational development.

The evaluation found that the program was very effective in increasing access to safe and sustainable infrastructure and basic services for vulnerable earthquake-affected households. The program significantly improved access to financial, human resources and materials to build back safer shelters. It also successfully increased access to safe water supplies and to hand washing facilities and toilets. Furthermore, the program successfully resourced outreach clinics and equipped community health volunteers, which proved instrumental in improving the capacity of health clinics and volunteers to help service marginalised groups. Furthermore, the program stimulated agricultural production through the repair of livelihood infrastructure.

In terms of the program's effectiveness in increasing the ability of vulnerable earthquake-affected households to self-organize and take actions to recover quicker by adopting improved resilience practices, the evidence is mixed. The program was very effective in building household and community capacity to build safer shelter and to build and sustain water schemes and toilets. Yet, the extent to which improved resilience transcended into improved health and hygiene behaviour, and sustainable livelihoods was limited by a number of factors. These include a) limited participation rates in hygiene promotion training; b) early phasing out of health programming and cancellation of behaviour change activities; and c) the delayed roll out of collective initiatives (market-orientated production) and cancellation of other activities (off-farm vocational training) undermined the effectiveness of moving farmers from subsistence to commercial farming.

The report begins with an overview of the program and the evaluation methodology (**section A**). Research was carried out in May 2019 and included visits to ten of the 19 target villages in Nuwakot, Rasuwa Makwanpur districts. The study was based on a mixed-methods approach, featuring a survey amongst 775 households, case studies, technical inspections, key informant interviews and focus group discussions.

Section B presents its findings presented per key evaluation criteria. **Section C** draws conclusions and recommendations and supports evidence-based learnings. Key findings are summarised below.

Context, Relevance, Coverage and Principles

- The program design was developed within the **context** of the *National Red Cross Society Recovery Framework (2015)* to provide a coherent framework to contribute to the earthquake recovery. Consistent with the *Recovery Framework*, the *Utthan Program* design adopted an integrated recovery approach, incorporated institutional capacity building and community-based approaches and tools.
- At the *national level*, the program was aligned to the strategic pillars of the Government of Nepal (GoN) (WASH, livelihoods and infrastructure) and major findings of the *Independent Impacts and Recovery Monitoring Report* and the *Inter-Agency Common Feedback Project*, ensuring **relevance** with priorities and policies.

At the *community level*, interviews with earthquake-affected beneficiaries all confirmed that the main activities of the *Recovery Framework* and the program design were relevant to their key concerns, most particularly those related to the construction/re-construction of water systems and support for the construction of houses and toilets, and livelihood activities. However, despite conducting initial assessments, and commissioning reports (such as the 2017 "*Assessment of the Mental Health and Psychosocial Status and Needs of Earthquake-Affected Communities*") highlighting the need for collective initiatives, commercialisation of the livelihood sector, psychosocial support and disaster risk reduction (DRR), significant gaps remained.

- The three proposed program districts, Nuwakot, Rasuwa and Makwanpur all fell within the GoN designated 14 most affected districts. The GoN Post Disaster Needs Assessment (Government of Nepal,

2015) ranked Nuwakot and Rasuwa as among the six most affected districts. While the decision to have a wide presence and scope was defended by a number of key informants who believed that it was appropriate for NRCS to follow the GoN prioritisation approach, others expressed a view that they should have concentrated a full recovery program, with wider **coverage** within a smaller geographical area.

- Interviews with National Red Cross Society (NRCS) and American Red Cross (ARC) revealed that staff were well briefed and applied **Red Cross values and principles** in their daily work. Beneficiary selection is one of the key areas where Red Cross values and principles were incorporated. In program design and implementation, vulnerability was one of the key components of beneficiary selection.

Outcomes, Effectiveness and Efficiency

- The program generated positive **outcomes** in terms of shelter, WASH, livelihoods and health. Combined with interventions in organisational development this led to the development of safer and more inclusive communities.

In terms of **shelter**, the evaluation found that 2,885 households successfully had their home reconstructed through the access of cash grants, with 98 percent of households retaining knowledge of the build back safer methodology. Ninety-five percent of homeowners completed construction that was fully compliant and conformed to all required standards.

Regarding **water supply and sanitation**, positive trends were found with regards to access to safe and adequate water supply facilities, with 87 percent of households taking less than 10 minutes to fetch water. This is combined with 100 percent of water user and sanitation committees (WUSCs) practicing operation and maintenance related to WASH infrastructure. Findings also revealed that 98 percent of households now have access to toilets, with all VDCs declared open defecation free once again. Negative trends however were recorded against several indicators relating to the knowledge and practice of proper hygiene behaviour.

Concerning **livelihoods**, a significant shift in capacity took place from early recovery to recovery for vulnerable earthquake-affected households and communities in asset building; livelihood diversification and the building of human/social capital. This was significant enough to ensure 65 percent of households were above the livelihood threshold and 83 percent of households above the survival threshold, despite modest rises in incomes. However, the delayed roll out of collective initiatives (market-orientated production) and cancellation of

other activities (off-farm vocational training) undermined the effectiveness of moving farmers from subsistence to commercial farming.

With respect to **health**, the program has been highly effective in resourcing outreach clinics, and equipping community health volunteers. It was found however, that the program had been less effective delivering activities that would contribute to healthy behaviours, with important community-based behaviour change activities and psychosocial services that had originally been planned, either not been fully conducted, or not begun at all. This ultimately constrained communities and households practicing health behaviours.

- The program directly benefitted approximately 15,000 villagers across 3,000 of the most vulnerable households in 19 village development committees (VDCs) with an integrated package of shelter, WASH and livelihoods support. This represented approximately 19 percent of households with fully destroyed homes. These households were **effectively** supported and frequently visited by program staff.

Regarding **objective 1**, results were mixed. While the program was very effective in building household and community capacity to build safer shelter and WASH infrastructure, along with livelihood assets and diversification, this increased capacity along with greater ability to self-organise has yet to translate into behaviour change and improved resilience practices as envisaged in the program design.

Concerning **outcome 2**, all assessable program indicators relating to access to safe and sustainable infrastructure were either achieved or showed a strong positive trend. This is particularly the case in shelter, where technical and financial support was considerable. The program was also very effective in improving agricultural productivity through the repair of livelihood infrastructure as part of the Cash for Work program.

- A key issue at the Earthquake Response Operation level that impacted the **efficiency** of the program that was identified by informants (NRCS staff at district and HQ, and ARC, SpRC and Canadian Red Cross) was difficulties associated with delivering against one of the visions presented within the *Recovery Framework*, namely that the recovery operation would be characterised as one demonstrating “*joint responsibility, light coordination and swift decision making.*” It was found that that centralised decision-making led to many bottlenecks, and slowed down operations at district level and within the community. Additionally, the use of existing policies, guidelines and procedures of the

NRCS, without an examination as to whether they would meet the requirements of a large recovery operation that needed to be swift and agile, was seen as a gap that should have been rectified earlier.

Sustainability and Gender/Social Inclusion

- Most program outcomes were seen as **sustainable**, given the willingness and capacity of villagers to continue pursuing underpinning activities. In building civil society, the program has strengthened savings groups and water users' committees or has established them where they do not exist. Water supply systems are sustainably managed, with back-up from the government if required.

With the intentional focus on building household and community capacity, the training of local masons, carpenters and households in BBS has meant that newly constructed shelters are generally more robust and better built than pre-disaster shelters. The training of maintenance workers for the repair and maintenance of water structures will enable the community to adequately maintain infrastructure associated with water schemes.

The phasing out of Recovery Action Groups (RAGs) however, rather than integrating them into existing permanent community structures such as Local Disaster Response Management Committees represents a missed opportunity in building community resilience in DRR. Additionally, it is unlikely that livelihoods will be sustained in the long term, particularly with regards to the commercialisation of agriculture.

- The program proactively sought to rectify female under-representation in decision-making roles through quotas for groups such as RAGs and WUSCs. However, there was little evidence that increased participation led to more **gender** equitable decision-making, with interviews revealing that women tended to remain passive during meetings.

With the construction of new water schemes, water is now available at or very close to peoples' houses. Handwashing stations have been constructed close to toilet facilities. These typically have two or even three different height levels for taps, designed to suit adults, children and people with disabilities, thus ensuring **social inclusion**. Most water points also displayed a good quality ceramic tile with symbols and pictograms to promote good hygiene practices.

- The opportunity for women to participate in shelter construction training was mixed within the three districts. Where it was carried out it was very successful and the women felt they could and should be a part of that to a greater extent. Interestingly the men in those groups, including masons and

carpenters all agreed. However, while advertising the call for mason training, advertisements specified that only experienced people in construction should apply, rather than being gender inclusive.

Community Participation and Empowerment, Coordination and Relationship Management and Satisfaction

- The program utilised a range of community-based tools and approaches to ensure **community participation and empowerment** in assessment, design and implementation.

The home-owner driven reconstruction approach implemented jointly by Build Change and NRCS was a significant success. The approach ensured that homeowners themselves chose the design of their house, from number and layout of rooms to choosing preferred building materials, with technical support centres located in each of the working VDCs.

The concept of 'Alo Palo' was a significant community participation approach, where communities would pool their labour together and help with the construction of each house.

- **Coordination and relationship management** proved to be a sensitive and complex issue, as expressed by the different views that were shared during the evaluation process. Interviews tended to indicate that the concept of partnership, joint responsibility and co-management articulated in the *Recovery Framework* did not occur as anticipated, resulting in a deterioration in the levels of mutual trust between NRCS and partners.

Feedback from the districts and at central levels however revealed that NRCS maintained a high level of coordination with government line agencies. Apart from partnering with Build Change as the lead agency assisting homeowners to rebuild their homes, there was no other collaboration with external organisations with interviews revealing there was a general reluctance to work with external partners, despite the potential to augment Red Cross capacity and provide opportunities for learning.

One channel provided by the program to monitor and manage the level of **satisfaction** among beneficiaries was community access to safe and responsive mechanisms to handle complaints. This included providing various confidential feedback channels including suggestion boxes, community meetings, the 1130 national phone hotline, kiosks and Facebook pages. However, despite resources being allocated especially to the hotline and feedback boxes, the majority of those interviewed preferred to use community meetings and face-to-face discussions

Table 1 - Overview of Key Observations and Recommendations

No.	Key Observations and Recommendations	Reasoning
A.	To effectively reinforce community resilience and adaptive capacity, integrated multi-sectoral interventions that engage the community are required that bring tangible benefits to the broader community	
A.1	Given the demands for a holistic integrated approach to community resilience programs, future programming needs to integrate multi-sectoral expertise - both conceptually and in practice.	Implemented through a single consortium, the Utthan program pooled the strong expertise of Build Change. While such pooling is commendable in the context of community-based resilience programs, expertise must be used in an integrated and holistic approach to be effective. In the case of the Utthan program, there was holistic integration but not enough external coordination. More conceptual and practical advances are required to reinforce community resilience more effectively. Ensuring DRR and psychosocial support should be crosscutting activities underpinning 4+1 disaster programming.
A.2	An integrated approach to resilience building in the context of emergencies or disasters should seek to integrate DRR and psychosocial services into planning (see D.3)	
B.	To effectively implement recovery programming, policies, procedures and governance structures must be fit for purpose	
B.1	Movement partners (IFRC & PNS) should support NRCS to adapt existing policies and procedures when shifting from development to recovery and enable scale-up and scale-down - analysing different models and tools that can be used.	One of the challenges faced by the Utthan program, within the context of the broader Nepal ERO, was the inability to deliver against one of the visions presented within the Recovery Framework, namely that the recovery operation would be characterised as one demonstrating “joint responsibility, light coordination (and) swift decision making”. Future recovery programming of the scale of the Utthan program requires the adaptation of existing policies, procedures and governance structures to enable scale up and scale down.
C	The homeowner-driven reconstruction approach enables communities and homeowners to build back safer	
C.1	In order to advance housing construction, the provision of complimentary in-kind materials for toilet construction, low-tech rain water harvesting from rooftops or solar lighting should be considered as alternatives to direct financial support to supplement the government-imposed cash grant cap	The Utthan program was innovative due to both the technical support provided, and the scale of the reconstruction effort. The technical support provided by Build Change allowed the homeowner to stay fully informed and make key decisions with the correct knowledge. The collaboration with Build Change was an example of a successful external partnership that drew upon technical expertise, engineering innovations and technology, as well as local capacity and solutions for housing reconstruction. The success of the homeowner driven methodology can be seen in both the number of homeowner’s who have started construction and those who have completed a house that is fully compliant and conforms to all required standards and checklists (94 percent).
C.2	In order to reduce the burden of debt because of the government-imposed cap of housing reconstruction, it is recommended that NRCS investigate the government loan program and, if feasible, provide training to local NRCS volunteers and staff at the district level on options for beneficiaries to transfer from high interest to low interest loans	
D	Building resilience capacity to absorb and adapt to stressors rests on building human/social capital, asset building, diversification of livelihoods and DRR	
D.1	To effectively reinforce resilience building in recovery programming, both absorptive and adaptive capacity must be strengthened and enhanced over time	The Utthan program made a strong contribution to the capacity of people to absorb the negative impacts of disaster on their livelihoods and ‘bounce back’ after the earthquake. It did so by building the social capital of community groups, built assets social safety nets and social protection schemes and built human capital and diversified livelihoods by increasing community skills and knowledge in the production of livestock and crops. However, the absence of disaster risk reduction, or an effective psychosocial referral system and lack of access to productive resources including credit, markets and linkages to input suppliers, will limit the capacity to adapt to multiple, long term and future risks.
D.2	Collective initiatives (market-orientated production and market access) should be integrated into ongoing livelihood development programming at district chapter level	
D.3	An integrated approach to resilience building in the context of emergencies or disasters should seek to integrate DRR and psychosocial services into planning (see A.2)	

Table 2 - Summary Table of Findings

Reference	Indicators	Baseline Value	Endline Value	LoP Target	LoP Status
Outcome 1.1: Enhanced household and community capacity including capacity of vulnerable and traditionally marginalized groups, to build safer structures					
Shelter	% of households in the shelter supported area have knowledge of Build Back Safer	0	98%	60%	Achieved
Outcome 1.2: Enhanced household and community capacity including capacity of vulnerable and traditionally marginalized groups, to build and sustain WASH infrastructure and services					
WASH	% of target water user and sanitation committee that are practicing operation & maintenance system of WASH infrastructure and services.	N/A	100%	95%	Achieved
	% of people practicing proper hygiene behaviour including washing hands with soap at critical times.	64% ¹	N/A%	75%	Negative Trend
	% of working VDCs declared Open Defecation Free (ODF).	79% ²	100%	100%	Achieved
Outcome 1.3: Households and communities' health risk including vulnerable and traditionally marginalized groups, reduced by practicing healthy behaviours					
Health	% of people having knowledge of improved health practices (e.g. preventable disease, epidemic, safe motherhood including immunization).	N/A	N/A	75%	Negative Trend
	% of people practicing improved health behaviour (e.g. preventable disease, epidemic, safe motherhood including immunization).	N/A	N/A	60%	Negative Trend
	% of supported outreach clinic become operational.	0	100%	80%	Achieved
Outcome 1.4: Enhanced household and community capacity including vulnerable and traditionally marginalized groups, to sustainably increase production and income					
Livelihoods ³	% of target household meet their livelihood protection thresholds	43%	65%	60%	Achieved
	% of target HHs (most vulnerable) meet their survival thresholds	64%	83%	60%	Achieved
	% of target HHs (most vulnerable) have adopted improved farming practices.	N/A	97%	80%	Achieved
	% of household increased their farming productivity	N/A	N/A	75%	Not Assessable
	% of trained people applied new knowledge and skills to acquire a paid job	N/A	N/A	50%	Not Assessable
Outcome 1.5: Communities increased capacity to manage their recovery and address other needs as a cohesive and inclusive community					
Community Mobilisation	% of community forums (RAG) for mobilization, planning and action are functional in the working areas.	N/A	N/A	60%	Not Assessable

¹ Data sourced from Nepal Earthquake Response Operation Baseline (ERO) Report² Data sourced from discussions with ARC WASH sector specialist³ Data sourced from Nepal Earthquake Recovery Program Livelihoods Evaluation, Red Cross, 2019

Table 2 - Summary Table of Findings

Reference	Indicators	Baseline Value	Endline Value	LoP Target	LoP Status
Outcome 2.1: Increased household and community including vulnerable and traditionally marginalized groups, access to financial, human resource, material and other resources needed to build locally acceptable and safer structures					
Shelter	% of target household living in shelters meeting agreed standard as per government guidelines.	3% ⁴	95%	95%	Achieved
Outcome 2.2: Increased household and community access to locally acceptable, gender sensitive and disaster resilient WASH services					
WASH	% of target people that have access to safe and adequate water supply facility.	86% ⁵	N/A	75%	Positive Trend
	% of target households that have access to toilets with full use, operation and maintenance.	74% ⁶	98%	85%	Achieved
Outcome 2.3: Increased household and community access to livelihoods infrastructure, assets and other resources to sustainably increase production & income					
Livelihoods	% of HHs involved in CfW project spent their earning to cover their basic needs/services	N/A	N/A	80%	Positive Trend
	% of HHs benefited by livelihood infrastructures reported improved capacity to recovery process.	N/A	N/A	75%	Positive Trend
Outcome 3.1: NRCS has sufficient skilled and diverse human resources to implement community-based recovery, resilience, disaster risk reduction and readiness to respond to programming					
Institutional Development	# of NRCS district chapter capacity is enhanced to be able to effectively implement activities incl. recovery program.	0	3	3	Achieved
Outcome 3.2: NRCS has necessary material assets to implement community-based recovery, resilience and disaster risk reduction programming and has improved readiness to respond to disasters					
Institutional Development	# of NRCS district chapters have safer building and equipped with essential assets incl. IT and communication system	0	3	3	Achieved

⁴ Data sourced from ERO Report⁵ Data sourced from ERO Report⁶ Data sourced from ERO Report

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Introduction

With its complex geophysical structure and vulnerability to a variety of disaster types, Nepal ranks as one of the most disaster-prone countries in the world. On April 25, 2015, a 7.8-magnitude earthquake struck near Kathmandu, Nepal and was followed by a series of large aftershocks, including a further 7.3-magnitude earthquake on May 12. The disaster, which affected over 8 million people, led to more than 9,000 deaths, and temporarily displaced 2.8 million people, prompting a significant response from the international community⁷. The combined impact of the initial earthquake and the severe resulted in:

- The death of at least 8,856 people,
- Injuries to more than 18,000 people,
- Extensive destruction and damage to housing and livelihoods affecting more than 1.1 million families.
- 700,000 families being displaced,
- 600,000 houses being fully destroyed and a further 280,000 seriously damaged,
- The destruction of key infrastructure (including schools, health facilities, bridges, roads and irrigation systems).

The Government of Nepal's response to the disaster culminated in the 14th National Development Plan and strategically focused on socioeconomic transformation and rapid poverty reduction, particularly in agricultural transformation, developing infrastructure, good governance and promoting cross-cutting sectors such as gender equity and inclusion.

Consistent with the government's National Development Plan key priority areas, and the Nepal Red Cross Society (NRCS) Recovery Framework (2015), the NRCS in partnership with American Red Cross (ARC), Spanish Red Cross (SpRC) and the Canadian Red Cross (CRC) began implementing the four-year Nepal Earthquake Recovery Program (*Utthan Program*) in October 2015. The program aimed at contributing to the sustainable recovery of vulnerable earthquake-affected households and building safer and more resilient communities in 19 Village Development Committees (VDCs) and one municipality in Rasuwa, Nuwakot and Makwanpur districts. Adopting a community-driven integrated approach, the program combined shelter, water, sanitation and hygiene (WASH), livelihoods, health and organizational development interventions in a holistic manner to maximize impact and an efficient allocation and use of resources.

To what extent has the program made a difference, and what can be learned from this experience? These are the two key questions that guided the present evaluation. Research was carried out in May 2019 and included field visits and a household survey in ten village development committees. Findings are based on a mixed-method approach that included a survey amongst 775 households and a range of qualitative tools such as case studies, technical observations, focus group discussions and key informant interviews.

The report is organized into three sections. **Section A** (Background) reviews the background of the program and of this evaluation. **Section B** (Findings) includes the key findings, for each evaluation criteria as per the terms of reference. **Section C** provides the main conclusions. Innovations and lessons that can be drawn from the program for future replication. The appendices provide additional information on the terms of reference, data files, tools and sampling as well as technical reports and case studies.

⁷ Ministry of Home Affairs (MOHA), 30 Sept 2015. (Latest government data as of Aug 2016.)



SECTION A | BACKGROUND

1. Program Overview

Immediately following the earthquake in April 2015, the Red Cross Movement provided a large amount of emergency assistance through NRCS at the national and chapter level, and through Emergency Response Units. In cooperation with the International Federation of Red Cross and Red Crescent Societies (IFRC), ARC and NRCS proceeded to distribute relief packages in selected disaster affected districts to meet the immediate needs of the earthquake-affected population.

Utthan program goals and objectives

As a long-term recovery operation, the Utthan program was launched on October 15, 2015 and ended on March 31, 2019. Building on the principles and strategies laid out in the NRCS draft recovery framework, the Utthan program was geared towards adopting a community-driven integrated approach to self-recovery and resilience building, with the goal of contributing to the sustainable recovery of vulnerable earthquake-affected households and more resilient communities. Central to this was the integration of shelter, health, WASH and livelihoods, mobilising community, especially the most vulnerable, as active participants in decision making, planning, and implementation, through capacity building and in-kind material support.

Targeting three of the most affected districts – Nuwakot, Rasuwa and Makwanpur – and 19 VDCs, with a total of 3,000 HH, the *Utthan Program* interventions were developed to achieve three main objectives (see Figure 1).

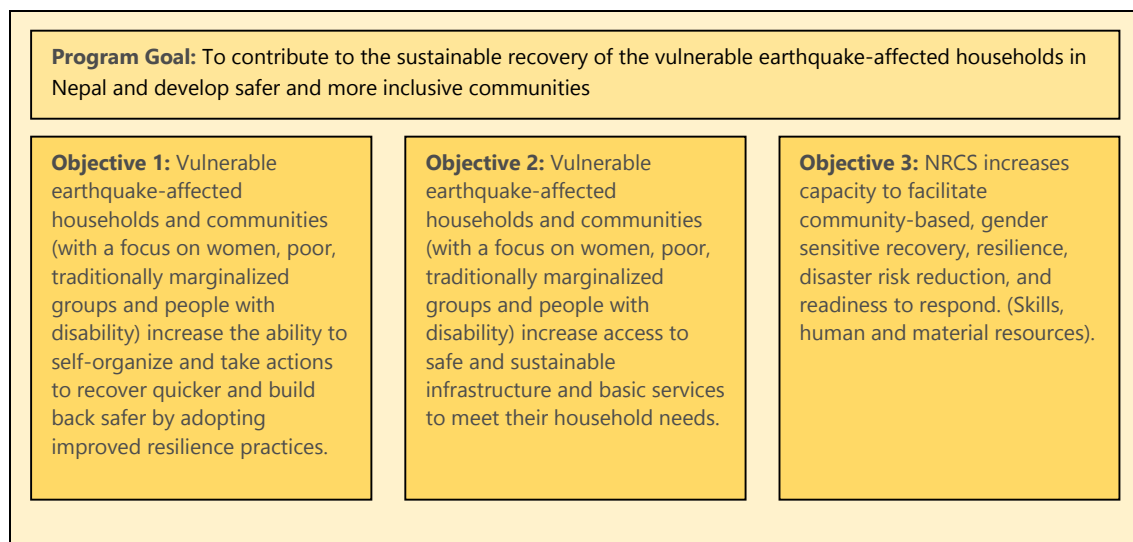


Figure 1 - Utthan Program Objectives

The *first objective* focused on building community capacity in shelter, WASH, health and livelihoods in order to improve resilience practices to future disasters. The *second objective* focused on access to safe and sustainable infrastructure and basic services across all sectors for earthquake-affected households and communities. The *third objective* targeted the institutional capacity of NRCS to manage and implement community-based recovery, resilience and readiness.

Activities

Implementation began with a rapid participatory assessment that served planning purposes for the integrated sector activities and also helped to build active partnerships and linkages between communities and local and national institutions including civil society, government and private sector establish partnerships and coalitions

With regard to *objective 1* on building community capacity in shelter, WASH, health and livelihoods, activities included:

- Training of community-based masons and carpenters on building back safer (BBS) approaches
- Establishment or strengthening of existing community-based water user committees to construct, protect, maintain and repair WASH infrastructure
- Training of NRCS and health facility staff in health and hygiene promotion and strengthening of referral pathways; strengthening of community-based health and hygiene promotion groups; and the development of community-based health and hygiene promotion campaigns
- Building capacity of existing savings and farmer groups; off-farm vocational training and farmer training; and improving market access.

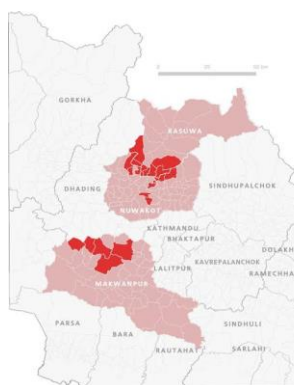
The main activities in support of *objective 2* comprised:

- Provision of cash grants/in-kind materials for shelter construction, rehabilitation/construction of damaged water schemes, livelihood assets and health equipment and provision of cash grants for community micro projects.

In support of *objective 3*, activities comprised:

- capacity building of NRCS staff in disaster risk reduction (DRR), post-disaster rapid assessments, behaviour change communication (BCC), gender equality and social inclusion (GESI) and first aid; building institutional capacity in warehouse management, information management systems, and knowledge management systems.

The following table provides a program overview.



Map | Utthan Program areas

Program Name	Nepal Earthquake Recovery Program
Program Location	Rasuwa, Nuwakot and Makwanpur Districts
Program Goal	Contribute to the sustainable recovery of vulnerable earthquake-affected households in Nepal and develop safer, more resilient communities
Program Outcomes	Objective 1: Vulnerable earthquake-affected households and communities increase the ability to self-organize and take actions to recover quicker and build back safer by adopting improved resilience practices to disasters Objective 2: Vulnerable earthquake-affected households and communities increase access to safe and sustainable infrastructure and basic services to better meet household needs. Objective 3: NRCS increases organizational and technical capacity to manage and implement community-based recovery, resilience and readiness to respond programming.
Program Components	• Support to targeted VDCs, municipalities and temporary camps • Integrated programming with Red Cross focus on of shelter, WASH, community health promotion, and livelihoods • Community-driven and community-owned action plans with Red Cross supporting prioritized areas of shelter, WASH, health and livelihoods • Provision of assistance through cash transfer and cash grants, training and technical assistance, material inputs
Program Beneficiaries	Direct beneficiaries 3,000 households (15,000 individuals) earthquake-affected households receiving an integrated package of services with Red Cross support focused on shelter, WASH and livelihoods services Indirect beneficiaries 20,636 households (98,480 individuals) directly supported through community level services with Red Cross focused on the sectors of WASH, health and livelihoods services
Program Start Date	15 th October, 2015
Program End Date	31 st March, 2019
Program Budget	USD \$17.6m
Funding Sources	ARC: US\$14.5m SpRC: US\$1.82m CRC: US\$1.3m

Figure 2 - Program Overview

2. Evaluation Objectives and Approach

2.1 Objectives

The purpose of the evaluation as outlined in the terms of reference (ToR) criteria consists of two aspects: *first*, it was to provide accountability by assessing the program in terms of its relevance, coverage, satisfaction, context, outcomes, effectiveness, efficiency, and sustainability. This was to include the provision of evidence of program outcomes (intended or not) within the lives of women and men in target communities. The ToR criteria also required the evaluation to assess the role of the program towards a) gender and social inclusion, b) community empowerment and relationship management, and c) alignment with Red Cross principles and values.

Second, the evaluation was to identify evidence-based learning. Based on the synthesis of program-level findings, the evaluation was to identify and map innovative approaches throughout the program design and implementation and the degree of replication of activities and approaches locally and globally. The scope of the evaluation as outlined in the ToR can be found in *Appendix A*.

The evaluation was independently conducted by the Nepal Development Research Institute (NDRI) and conceptualised through the development of an inception report (*see Appendix A*). The report integrated the ToR's key criteria and evaluation questions into an evaluation framework and plan, from which research tools were developed.

2.2 Approach

To arrive at the answers to the evaluation criteria, a mixed method sequential approach was developed with the household survey representing the quantitative component and case studies, technical observations, focus group discussions and key informant interviews forming the qualitative component.

The mixed methods approach enabled the use of hybrid form of the convergent parallel design, as well as explanatory sequential design. The hybrid form of the convergent parallel design enabled evaluators to obtain different, but complementary quantitative and qualitative data. Data was analysed separately, and then merged, in order to best understand the findings and convergence in data at outcome level. This design used different groups of people from both the qualitative and quantitative study based on the data collection methodology in the program monitoring and evaluation plan.

An explanatory sequential design used qualitative findings to explain quantitative results (significant, nonsignificant, outliers or surprising results) and to guide the identification of additional stakeholders to be interviewed based on quantitative results.

2.2.1 Sampling Methods

Ten of the 19 VDCs and one municipality across the three districts were selected for visits by the evaluation team. A systematic stratified design was used: households in shelter-supported VDCs formed stratum-I and households in non-shelter supported VDCs formed stratum-II. All four (4) shelter-supported VDCs were selected. Two (2) non-shelter-supported VDCs from each district were randomly chosen from the Non-shelter stratum from a total of 16 VDCs. Stratum-I VDCs (Gogane of Makwanpur; Thulogaunn of Rasuwa; and Kaule and Bhalche of Nuwakot) focused on shelter support as well as combining activities from different sectors, whereas Stratum-II implemented all other sectors, except shelter.

For the household survey, sampling was based on the probability proportional to size technique, taking the two strata as separate sampling frames. The total sample frame was 20,853 households. The sample size was calculated on the basis of a confidence level of 95 percent and a margin of error of 5 percent for both strata. Eight-hundred and fifty (850) households were sampled, divided equally among the two strata. However, the planned sample could not be fully attained during field research (775 of the planned 850 households

were interviewed), however was within the 10 percent non-response rate. VDC sample sizes were calculated using equal household distribution approach. Households were selected using systematic random sampling from lists prepared from the earthquake rehabilitation activities.

For qualitative data collection, sampling of informants was appropriate to the resources available and relevant to the information sought from them. As such, not all informants listed in the program were sampled, but only those informants that had the greatest involvement in the program and relevance to the information being collected. Focus group participants and key informants were purposively sampled by the evaluation team. Each focus group ranged from 8-10 participants and were of mixed gender. A total of 19 focus groups were conducted across WASH, livelihoods, shelter, health, institutional development and community mobilisation. Twenty-three (23) key informant interviews (KIIs) were conducted at district level, covering livelihoods, health, shelter and WASH sectors as well as community mobilisation and institutional development. Nine (9) KII were conducted among the ARC, NRCS, Canadian Red Cross and Spanish Red Cross, whilst one KII was conducted with Build Change. In total, 33 KIIs were conducted. The names and titles of individuals and groups interviewed can be found in *Appendix B*.

Forty-five (45) technical inspections were conducted across all districts in health (4 outreach clinics across Nuwakot, Rasuwa and Makwanpur districts), shelter (6 households in Makwanpur, 20 households in Nuwakot and 5 households in Rasuwa), livelihoods (2 irrigation schemes in Rasuwa and Makwanpur, and one road improvement scheme in Nuwakot) and 5 water schemes across all districts.

For greater analysis of the overall survey design covering quantitative and qualitative sampling, please refer to *Appendix A*.

2.2.2 Data Collection Methods

Key documents were also reviewed covering the start to the present Utthan Program as well as those relating to the Red Cross Movement (RCM) Earthquake Response Operation (ERO).

To address the evaluation criteria related to “outcomes”⁸, the evaluation assessed achievement against life of program targets for 20 indicators, as well as using established baseline measurements to measure change, where possible. Household surveys were used to collect data from identified respondents to capture quantitative information on key indicators from the monitoring and evaluation (M&E) plan.

The aim of the survey was to be simple to answer and record responses, and not take more than 60 minutes to complete. The survey was structured according to a fixed-response format, divided into four sections: Demographic and Household Characteristics, Shelter, Water, Sanitation and Hygiene and Health. The household survey, can be found in *Appendix A*. Data was collected through the Open Data Kit (ODK) application Kobo toolbox. The household survey was conducted between the 15th – 22nd May 2019 by seven enumerator teams (20 enumerators in total) across all three districts under the supervision of three district supervisors. The enumerators were trained over three days by the evaluation team on the survey methodology including tools, data administration, mobile collection, ethical principles of data collection and logistics. The survey and ODK application were field tested before administration.

Four livelihood indicators that were part of the original program M&E plan were not measured because comparable data was collected in April 2019 as part of the *Utthan Livelihood Component Endline Report*⁹. As such, relevant data was extracted for this evaluation¹⁰. One WASH indicator was excluded from the evaluation because implementation changed. Refer to

⁸ In addressing the evaluation criteria of ‘outcomes’, the value of each indicator derived from the program’s Monitoring and Evaluation (M&E) Plan at the outcome level was measured

⁹ 367 households were selected using systematic random sampling from beneficiary lists across Makwanpur, Nuwakot and Rasuwa districts.

¹⁰ The livelihoods component of the program was supported by the Spanish Red Cross through a separate program agreement with NRCS.

Appendix A for a list of indicators that were not included in the evaluation data collection process.

KII were conducted with program partners and focus group discussions (FGDs) with community groups to capture qualitative and some quantitative data. Interview questions were developed to ensure alignment with the outcome level logframe indicators and relevant evaluation criteria in the ToR. FGD and KII interview guides are provided in the Inception Report that can be found in *Appendix A*. Qualitative data collection was conducted from the 29th May – 5th June 2019 by three research teams (12 researchers in total), one per district. A two-day training session for field researchers for qualitative data collection took place between 27th – 28th May on research design and methodology, ethics and risk management, interviewing techniques, interview tools and logistics. The agenda for both training sessions can be found in *Appendix A*.

Technical inspections of key program infrastructure were conducted by sector specialists in the evaluation team relating to health clinics, shelter, WASH drinking water schemes and household toilets and livelihood schemes that focused on irrigation and foot trails. The technical inspection checklist can be found in *Appendix A*.

Three case studies were conducted on earthquake-recovery interventions and were either exploratory, descriptive or explanatory in nature.

2.2.3 Data Analysis and Reporting

Quantitative survey data were entered into Excel and subsequently cleaned. They were then exported to SPSS 24 for statistical analysis. Simple frequency tables were generated and presented. Where relevant, tests for associations were conducted. Qualitative data was analysed narratively by the evaluation team consistent with the team member roles stipulated in the ToR. A complete analysis plan can be found in *Appendix A*.

2.3 Evaluation Quality and Standards

The evaluation fully respected the seven Fundamental Principles of the Red Cross and Red Crescent and was carried out under the strict observance of the IFRC evaluation standards, i.e. utility, feasibility, impartiality and independence, transparency, accuracy, collaboration and participation and all applicable ethics and legality.

The evaluation also observed the 'Do No Harm' principle and applied all standard ethical considerations for evaluations, i.e. safe and secure environment, informed choice, and the voluntary participation in this evaluation. All interviewees were asked to provide their consent and were fully informed of the purpose of this evaluation. All interviewees and FGD respondents verbally agreed to participation to, where applicable, agreed to be quoted.

Data protection was assured by treating all information strictly confidential. Any contextual information was coded and/or published only with the expressed consent of the individual. Information obtained for use in case study was either anonymized or the specific consent of respective individuals was obtained prior to usage. This also applies to photographs. Any recorded interviews (for the purpose of later transcription) were erased once transcribed, and all data held by the consultant(s) will be erased once the final product has been accepted by the client.

2.4 Limitations and Constraints

Due to sound preparation and excellent support by NRCS and ARC, the evaluation experienced no major logistical challenges.

It was noted however that the evaluation team did not always have timely access to program documentation or received no pertinent documentation at all from ARC/NRCS. This in particular related to budget information, making it difficult to assess the efficiency of the program from a cost perspective or levels of underspending. In other cases, monitoring data did not exist for information related to key indicators. This was the case for Recover Action Group (RAG) functionality for example.

It was stated in the terms of reference and inception report that to ensure gender representation, 50 percent of respondents would be female. However, only 38 percent were sampled because NDRI was requested by ARC to conduct systematic random sampling instead of simple random sampling.

One issue that was apparent early on during data collection related to a number of surveys that took significantly less time or significantly greater time than the average time of 45 minutes. Of the 775 surveyed, there were eight (8) surveys that took 12 minutes or less and 26 surveys that took up to 20 hours. For those cases that took significantly more time, it was found that enumerators had not signed out of Kobo Toolbox correctly. For those surveys that took significantly less time, an unusual number of skips took place. For those surveys that took significantly less time (20 minutes), surveys were conducted again. This totalled 25 households.

One limitation with respect to data analysis related to indicator tabulation. NDRI was requested by ARC to develop multiple questions for the survey that related to different dimensions for the one indicator. However, this created difficulties in compiling non-cumulative results into the one standard indicator. Whilst weighting of questions was an option as part of aggregation, it was considered too subjective given no one question related the indicator in question. In order to overcome potential methodological issues, it was agreed that proxy indicators would be used. Whilst baseline data was not available for these proxy indicators, evaluation team sector specialists were able to ascertain, on balance, whether positive or negative trends could be evaluated.

Another limitation related to the request to use FGDs as the source for quantitative data collection for half the indicators that were to be measured. However, because focus groups do not employ rigorous sampling plans and do not interview large numbers of respondents, they generally do not present an appropriate setting for collecting quantitative data. Where findings were explicit and unambiguous, data was collected and analysed. Otherwise it was not possible to assess findings for certain indicators. As a result, evaluation team sector specialists ascertained on balance whether positive or negative trends were observed.

In terms of disaggregating survey findings by strata for the livelihood's component, the unit of study for the *Livelihoods Endline Evaluation*, which was the source for the quantitative findings in this report, was across three different strata (livestock, agriculture, others). This compares to shelter and non-shelter stratum sampled for this evaluation. As a result, it was not possible to assess findings between stratum-I and stratum-II and the relationships between shelter and livelihood outcomes.

Two baseline studies were conducted as part of this program. The *Nepal Earthquake Response Operation [ERO] Baseline* and *Baseline Study of the Livelihood Sector of Nepal Earthquake Recovery Program Utthan*. Both studies proved only marginally relevant to providing credible baseline data for the evaluation however. Where relevant and comparable, the evaluation report has referenced baseline values from both these reports with caveats. For example, a different sampling approach was used for the baseline and endline¹¹ livelihoods component of the *Utthan Program*. The baseline was conducted in three phases across all the VDCs, whereas the endline used the stratum approach. The ERO baseline was conducted across all 14 districts of the ERO response.

¹¹ Endline data from the *Utthan Livelihood Component Endline Report* was used for this report.



SECTION B | FINDINGS

Section B provides an outline of the findings, organised into four sections, consistent with the key evaluation criteria. The first part explores the context and relevance, coverage and application of Red Cross principles in the program. The second part examines the outcomes, effectiveness and efficiency, whilst the third part studies sustainability and gender/social inclusion. The final two sections explore community participation, relationship management and satisfaction and finally, opportunities for program innovation, replication and learning are presented.

3. Context, Relevance, Coverage and Principles

3.1 Context and Relevance

Context:

"How does the program fit into the local context."

Evaluation Terms of Reference

This section explores the extent to which the program was in line with local needs and priorities and whether humanitarian activities were tailored appropriately to local needs, increasing ownership and accountability. This was undertaken by analysing the design process, the policy context, planning at the community and district level and relevance to the beneficiaries in target communities.

Design Context: Relevance and context are complementary criteria used to evaluate both the wider goal of an intervention and its specific approach in terms of how it responded to local context and needs. Analysis of context and an adequate needs assessment are of particular importance for promoting relevant and appropriate responses. Interventions are more likely to be relevant and appropriate if they: (i) are begun with an adequate needs assessment; and (ii) show understanding of and support the resilience and capacities of the affected population (Active Learning Network for Accountability and Performance in Humanitarian Action, 2006).

The *National Red Cross Society Recovery Framework (2015)* was developed to provide a coherent framework to contribute to the earthquake recovery. A key element of the Framework was the need to understand the local context as part of the assessment and design process. A simplified framework was developed to consider programme options and to help choose the most appropriate approach in each case, with consideration been given to altitude, market access, seasonality and hazards.

Consistent with the *Recovery Framework*, the *Utthan Program* design adopted an integrated recovery approach. This included as a 'minimum package' community mobilisation and engagement in four key areas: safer shelter, health, hygiene and livelihoods. 'Hard' components within the core integrated package according to identified needs included latrines, water systems, livelihood inputs and housing.

Ensuring that District Chapters had adequate capacity to deliver these programs, the design incorporated institutional capacity building (ICB), including soft and hard elements. NRCS was effective in engaging with Movement partners, including American Red Cross, Spanish Red Cross and Canadian Red Cross to contribute to core programming.

The planned integration within the design of community-based approaches and tools including community-based health and first aid in action (CBHFA), community-based disaster risk reduction (CBDRR), participatory hygiene and sanitation transformation (PHAST) and Participatory Approach for Safe Shelter Awareness (PASSA) indicated the program was well aligned to the *Recovery Framework*.

Policy Context: WASH, livelihoods and infrastructure are key strategic pillars of the Government of Nepal (GoN), along with major findings from the Independent Impacts and Recovery Monitoring (IRM) (Asia Foundation, 2016) report and in community surveys conducted by Inter-Agency Common Feedback Project (CFP) (Communicating with Communities Working Group, 2015). It was found that the *Utthan Program* was aligned with GoN priority of providing income opportunities to enable farmers to generate income opportunities and improve productive infrastructure in the short-term and recovery of livelihoods to facilitate local economic recovery in the medium term. The program was also well aligned to the GoN's reconstruction strategy that focused on reconstructing damaged shelters and access to clean drinking water.

Relevance of activities for affected communities: FGDs and KIs with beneficiaries from affected communities at district level all confirmed that the main activities of the *Recovery Framework* responded to their key concerns, most particularly those related to the construction/re-construction of water systems and support for the construction of houses and toilets, and livelihood activities. These findings correspond to a report commissioned by NRCS in 2017 entitled, "*Assessment of the Mental Health and Psychosocial Status and Needs of Earthquake-Affected Communities*", and conducted by Transcultural Psychosocial Organization Nepal (TPO Nepal) in Rasuwa, Nuwakot, and Makwanpur Districts. The key finding was that 73 percent of earthquake-affected communities reported income/livelihood as their most pressing need, followed by shelter 64 percent and support to cope with distress/tension, 61 percent. However, whilst addressing psychosocial needs was addressed in the original design, activities were later dropped. See *Section 4.1* for more information regarding psychosocial services.

Most beneficiaries interviewed in FGDs reported that the shelter intervention was fully relevant to their needs and priorities and had been actively involved in planning, design and implementing the shelter intervention. This was largely due to innovative approaches adopted by NRCS in partnership with Build Change. This included the development of a design library, mobile applications, technical support centre, partnering with Master masons and on-site construction coaching.

With respect to WASH, the combination of extreme water scarcity, inoperable sanitation systems, and difficulties for people maintaining good hygiene standards impacted the health of communities residing in the affected areas. The incidence of water borne diseases and

Relevance:

"The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies."

OECD 2010:32

health issues associated with contaminated water and poor hygiene increased markedly after the earthquakes and was exacerbated by poor living conditions in temporary shelters. According to KII and FGD respondents from Red Cross and from communities, the WASH related needs within the disaster affected populations during the relief and recovery phases included access to clean water for consumption and livestock and agriculture, sanitation infrastructure, hygiene standards conducive to good health. The approach adopted by the *Utthan Program* was consistent with the needs identified by the communities and the master plan of the GoN and aimed to ensure that all program areas were open defecation free (ODF). It also aimed to be inclusive of vulnerable people and provide interventions that addressed the various needs of girls, boys, men and women.

For livelihoods, KII and FGD respondents from Red Cross and from communities reported that a phased approach in generating short term income opportunities and improving infrastructures along with improving technical and investment capacity to increase production was important and an integrated approach to support was the right way to address not only the short- and medium-term needs of the earthquake affected communities, but to put them on a more sustainable footing with a view of increasing household income, diversifying activities and income, and putting people back in charge of their lives. Although it was acknowledged that whilst relevant to long term sustainable development, collective initiatives and commercialisation was generally absent from programming.

Thanks to the integrated approach of linking health with safe housing, safe and accessible water, and improved household livelihood, beneficiaries interviewed confirmed the relevance of NRCS health interventions, appreciative of the trainings related to preventative health and health provisions for households and health posts. However, the lack of psychosocial support was seen by community as a substantial gap that was not addressed.

Relevance of activities for government partners: The implementation of the Nepal Earthquake Recovery Program at the district level primarily depends on establishing and maintaining good working relationships with key partners from the district government. The intervention was designed through ongoing discussions with local government authorities, including the District Office of Water Supply and Sanitation, District Agricultural Development Office (DADO), District Livestock Services Office (DLSO) and the District Public Health Office (DPHO). All partners confirmed that the program was highly relevant to their plans, as well as to needs of the vulnerable local population and they emphasised that they were always supportive of program activities.

3.2 Coverage

An evaluation of coverage can exist at multiple levels (Active Learning Network for Accountability and Performance in Humanitarian Action, 2006):

- 1) international - determining whether the resources provided in one emergency are adequate in comparison to other emergencies; and
- 2) national - determining whether support was provided according to need in different areas, and why or why not;
- 3) local - determining who received support and why; information at this level should be broken down by social categories such as socioeconomic grouping, gender, age and ethnicity.

The evaluation sought to assess coverage at both the national and local level - determining whether support was provided according to need in different areas and who received support and why.

District targeting: The three proposed program districts, Nuwakot, Rasuwa and Makwanpur all fell within the GoN designated 14 most affected districts. The GoN Post Disaster Needs Assessment (Government of Nepal, 2015) ranked Nuwakot and Rasuwa as among the six most affected districts. The report also revealed that the poorer population residing in the six lowest

Coverage:

"How did actual program coverage compare to expectations and identified needs?"

Evaluation Terms of Reference

Human Development Index (HDI) districts that witnessed disaster effects above NPR 130,000 per person also happened to be in Nuwakot, Rasuwa, confirming that the poorest and the most vulnerable people usually sustain the worst impact of disasters. The assessment also indicated that whilst Makwanpur was crisis hit, its inhabitants were among the higher-HDI districts and sustained disaster effects lower than the average value of NPR 130,000 per person.

While the decision to have a wide presence and scope was defended by a number of key informants who believed that it was appropriate for NRCS to follow the GoN prioritisation approach, others expressed a view that they should have concentrated a full recovery program, aiming for wider coverage within a smaller geographical area. This case was made from the perspective of efficiently conducting an integrated approach, given only 15 percent of the targeted population were beneficiaries of the integrated package of services.

Community targeting: Within each district, decisions regarding which VDC or wards NRCS operations would support were taken in close consultation with the District Disaster Relief Committee (DDRC) and validated by NRCS NHQ; interviews at district level suggested that chapters and sub-chapters could have been more proactively included and involved in this process. In Rasuwa the NRCS district chapter was unhappy that it was not able to prioritise communities in the upper, more vulnerable parts of the district as well as the lower part, reportedly due to the insistence of the PNS to only select communities in the program area it was supporting prior to the earthquake.

Targeting the most vulnerable people within the community: While NRCS shelter-related activities followed the National Reconstruction Authority (NRA) beneficiary lists at ward level, in the majority of cases a combination of participation in the Recovery Action Groups (RAGs)/Ward Citizen Forum (WCF), convening specific community meetings and house-to-house surveys through sampling was used to carry out needs assessment and determine beneficiaries for different activities. It was reported in KIIs that the guidance of the Recovery Framework to use the Vulnerability and Capacity Assessment (VCA) methodology across all communities was not widely used so that community members themselves could identify beneficiaries for each of the main activities.

In identifying its pathways to recovery, the GoN stated:

“As the government prepares to develop a large-scale recovery programme on the basis of post-disaster needs assessment results, there is a widely shared realisation that it has to be a multi-pronged effort with a strong orientation towards the poorest and most vulnerable”. (Government of Nepal, 2015)

In a few isolated cases some focus group participants articulated a measure of confusion, disappointment or resentment related to vulnerable people being omitted from beneficiary lists; had these districts followed the participative processes of VCA this may have been avoided, as well as establishing a strong basis for ongoing community engagement throughout the operation and beyond. It is understood that NRCS was initially reluctant to target the most vulnerable people within a community in some instances, preferring to opt for a blanket approach, but this reportedly changed over time and the targeted approach was approved of by the vast majority of informants.

“For beneficiary selection a blanket approach was done where there was coverage for all. Some household weren’t selected even though they are vulnerable.” (KII NRCS District Chapter).

3.3 Red Cross Principles and Values

Fundamental Principles

Humanity
Impartiality
Neutrality
Independence
Voluntary service
Unity
Universality

Values

Protection
Respect
Non-discrimination
Understanding
Service

International Red Cross
and Red Crescent
Movement

The IFRC has developed a consistent and inspirational approach to promoting humanitarian values through seven Fundamental Principles of the Red Cross and Red Crescent Movement and five values.¹²

The Fundamental Principles are: humanity, impartiality, neutrality, independence, voluntary service, unity and universality. The values that the Red Cross Movement has formally stated it believes to be of importance for external promotion, include:

- the protection of life, health and human dignity
- respect for the human being
- non-discrimination on the basis of nationality, race, gender, religious beliefs, class or political opinions
- mutual understanding, friendship, cooperation and lasting peace among people
- service by volunteers

The aim is to influence the behaviour of the people it works with, through a better understanding of the Fundamental Principles and humanitarian values. Three main target groups were assessed as part of the evaluation in terms of whether the program followed the principles and values espoused – staff and volunteers working within Red Cross Red Crescent National Societies, public and private authorities, and members of the communities.

Key informant discussions with NRCS and ARC staff revealed that in general, staff were well briefed and applied Red Cross values and principles in their daily work. Staff at district level revealed they underwent a two-day induction training on Red Cross principles and values. However, awareness of these values and principles tended to diminish slightly at the district and community levels among social mobilisers and volunteers in particular who were interviewed. Interviews with external partners and community revealed little knowledge of the principles and values.

However, it is at the programmatic level where the application of principles and values are felt the most. The Recovery Framework established key principles of recovery, which outlined expectations for recovery programs and activities. These key principles of recovery were consistent with the Red Cross Principles, whereby:

- *Every effort will be made to identify individuals and households that are particularly vulnerable within the affected communities, those at risk of marginalisation, and those with additional or different needs, and to bring a lens of inclusion to decisions on targeting and programme design.*
- *Project planning will utilise a gender, violence and protection lens, and bring this perspective to the design, implementation and monitoring of the programmes.* (NRCS, 2015)

Beneficiary selection is one of the key areas where Red Cross values and principles were incorporated. Encouragingly, in program design and implementation, vulnerability was one of the key components of beneficiary selection. Whilst, the GoN defined beneficiary selection criteria for shelter support, beneficiaries of other community-based livelihoods activities were selected after detailed community assessments and formation of community action committees, through a participatory process with the community at the VDC or ward levels and development of selection criteria. As already discussed, some focus group participants revealed that vulnerable people were omitted from beneficiary lists, although this was not the norm.

Encouragingly, gender was fully integrated into the program design, rather than being viewed as an add-on. Quotas in leadership, as well as intentionally targeting women for participation in savings groups and influencing gender roles in water management, particularly by involving

¹² <https://www.ifrc.org/en/what-we-do/principles-and-values/>

both women and men in integrated water resources initiatives positively influenced are examples of this.

4 Outcomes, Effectiveness and Efficiency

4.1 Outcomes

This section presents the quantitative findings of the evaluation in order to assess whether the program has been successful in meeting its stated outcomes. This section begins with general observations and then analyses the level of target achievement for each of the nine program outcomes.

The conclusions in this section are based on analysis of household survey data from respondents in the nine VDCs and stakeholder consultations at local levels. Greater analysis is provided in the effectiveness section on the data results.

Program achievement has been evaluated based on analysing 20 performance indicators. Data was not collected against one indicator¹³ that was part of the original program logframe because of changes to planned activities during implementation. Where relevant, disaggregation of findings by strata has been made.

Demographic Description of Respondents

Out of 775 surveyed respondents in Nuwakot, Rasuwa and Makwanpur 61.1 percent (n=474) were male and 38.8 percent (n=301) were female.

The survey sought to interview heads of households based on the assumption that they would have best knowledge about the household status and livelihood support. In the absence of a household head, other family members were interviewed. In the survey 56.6 percent (n=438) respondents were the head of the household and 44.4 percent (n=337) were other family members. Eleven percent of households were found to have at least one disabled member.

Outcome 1.1: Level of achievement

Enhanced household and community capacity including capacity of vulnerable and traditionally marginalized groups, to build safer shelter (shelter)

The shelter reconstruction component was a homeowner driven re-construction program jointly implemented through ARC, NRCS with technical assistance from Build Change. Implementation was conducted in four VDCs - Kaule and Bhalche in Nuwakot, Thulogaunn VDC in Rasuwa, and Gogane VDC in Makwanpur. Activities began in August 2016, and Build Change transferred responsibility to NRCS in December 2018 for the final completion.

Overall, building household and community capacity to build safer shelter was extremely successful. The success of the Homeowner driven methodology can be seen in both the number of homeowner's who started construction and those who have completed a house that is fully compliant and conforms to all required standards and checklists (94 percent).

Initially, awareness raising through community theatre, a long-standing tradition in Nepal, was held in all VDCs, reaching 3,151 adults with public awareness campaigns on the basics of safe construction. Homeowner training sessions were also part of the awareness raising approach with 96 percent of all eligible households receiving this homeowner training which was split into 2 main topics:

- The technical specifications homeowners need to follow to meet the government standards (Different for each housing type) and training in Participatory Approaches for Safer Shelter Awareness (PASSA)
- The process homeowners need to follow to receive next tranche successfully

Outcomes

"To what extent did the program meet its expected outcomes?"

Evaluation Terms of Reference

1,097 masons trained in earthquake-resistant building methods and led the way in post-earthquake housing reconstruction

¹³ % of schools, institutions or offices within the VDCs areas have toilet facilities

Build Change provided on-the-job training to various stakeholders who were involved in the reconstruction effort. The objective of this training was to improve the quality of construction within the community and ensure that construction practices improved. The program successfully trained 1,097 (life of program [LoP] target - 900) semi-skilled masons and carpenters at the VDC level into skilled masons and carpenters capable in assisting community members in shelter construction as well as reaching 3,106 households (97 percent LoP target) with Build Back Safer information.

"Now we can teach others to build too. Before we didn't know. We can now teach our children for the future" (FGD Makwanpur)

To reinforce high quality construction, Build Change worked with contracted master masons who trained local masons. Master masons received a small incentive based on completed, fully compliant houses. The approach of training masons and carpenters who in turn trained community members in BBS was seen as an effective low-cost and sustainable option that made communities feel stronger and more resilient from future disasters.

Indicator 1.1.1 - % of households in the shelter supported area have knowledge of Build Back Safer	Baseline 0%	Endline 98%	Target 60%	Status Achieved
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This indicator measured the percentage of households in the target areas who have knowledge about Build Back Safer (BBS). Households surveyed were asked to recall at least five out of 10 messages related to BBS (see household survey in *Appendix A*). Survey findings indicated that 98 percent of respondents could successfully recall at least five BBS messages. Encouragingly, 90 percent of survey respondents correctly recalled at least nine messages, whilst 77 percent could recall all 10.

Outcome 1.2: Level of achievement

Enhanced household and community capacity including capacity of vulnerable and traditionally marginalized groups, to build and sustain WASH infrastructure and services. (WASH)

The program successfully established/strengthened 37 (LoP target 36) community water user and sanitation committees. The group-based response was instrumental in developing improved water infrastructure and in promoting the construction of toilets and hand washing facilities with full use O&M.

Achieving open defecation free status (in all VDCs) is arguably the most significant achievement in this regard. Whilst all districts were declared ODF prior to the earthquake, due to the damage and destruction of latrines, the GoN announced all VDCs undeclared. With no other organisations assisting in the targeting VDCs, NRCS conducted community-led total sanitation (CLTS) to ensure ODF status once again.

However, with respect to hygiene promotion a negative trend was found. With only 18 percent of households participating in hygiene promotion training over the last year, the percentage of household able to correctly identify the appropriate time for washing hands, correctly demonstrating how hands are washed and whether a separate place is used for washing and drying utensils was relatively low.

Indicator 1.2.1 - % of target water user and sanitation committee that are practicing operation & maintenance system of WASH infrastructure and services	Baseline N/A	Endline 100%	Target 95%	Status Achieved
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This indicator measured the percentage of water user and sanitation committees (WUSC) that are practicing operation and maintenance related to WASH infrastructure and services. Interviews were conducted with WASH beneficiaries, village maintenance workers, district chapters and WUSCs and were asked a range of questions related to the establishment of an operation and maintenance (O&M) fund and guidelines, completion of pre-and-post

37 village maintenance workers trained for repair and maintenance of water structures.

37 user committees supplied with tools for O&M.

construction management training, and presence of village maintenance worker in each water scheme.

In all FGDs it was revealed that the creation of WUSCs and the setting up of O&M is ensuring long-term sustainability. In establishing the schemes, community labour contributions (calculated as a rupee contribution per person per hour of labour), was an approach that the community members highly appreciated because it valued their contribution and made them feel true partners in the program.

In discussions with the NRCS WASH sector specialist it was indicated that the one percent guideline on investment in O&M systems is being surpassed. At the district chapter level, it was also remarked that WUSC are practicing O&M, providing seed funding for a maintenance fund, that includes a monthly contribution of NPR 100 per HH to fund the village maintenance worker.

Indicator 1.2.2 - % of people practicing proper hygiene behaviour incl washing hands with soap at critical times	Baseline N/A	Endline N/A	Target 75%	Status Negative trend
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To measure this indicator households were asked a series of questions related to appropriate time for washing hands, what is used for washing hands, whether a separate place is used for washing and drying utensils and were asked to demonstrate how hands are washed.

Respondents from most communities visited recalled that hygiene promotion had been conducted with a diverse range of communication used, i.e. community theatre/street theatre, radio and TV programmes, group meetings, and even house-to-house visits. However, when surveyed it was revealed that only 18 percent of households participated in hygiene promotion training over the last year, and of these households, only 12 percent participated in Red Cross-organised training, compared to government and other NGOs.

Because of the difficulties associated with compiling non-cumulative results into one standard indicator, an overall value could not be assessed. Nevertheless, a number of proxy indicators reveal some negative trends¹⁴ associated with practicing hygiene behaviour, which is

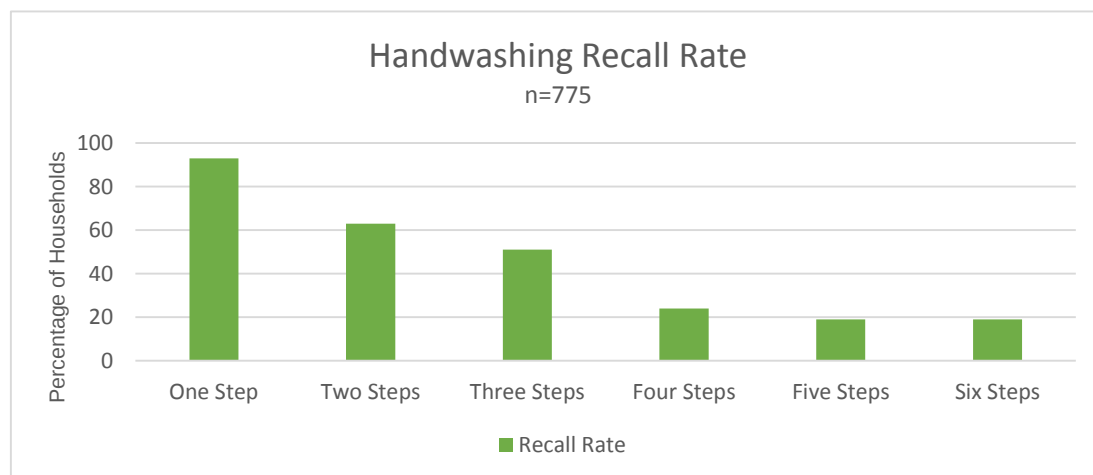


Figure 3 - Handwashing Recall Rate

unsurprising given the low percentage of households attending training, although this is despite 100 percent of the VDC population being reached with hygiene and health promotion campaigns.

Across all three districts, 90 percent of respondents now use water and soap to wash their hands. No variation was recorded by strata. When asked to demonstrate the six-steps associated with handwashing, only 19 percent of respondents could identify all six steps successfully. Most respondents (93 percent) could recall one step successfully. However, this

¹⁴ Whilst baseline data was not available for these proxy indicators, evaluation team sector specialists were able to ascertain, on balance, whether positive or negative trend were observed.

percentage fell away significantly as more steps were attempted to be recalled – 64 percent could only recall two steps; 51 percent could recall three steps; 24 percent, four steps and 19 percent, five steps. There was no significant variation in the findings by strata.

In terms of knowledge on critical times when to wash hands, more awareness raising is required, with only 24 percent of respondents able to identify 'before eating' as a critical time to wash hands, and 15 percent after defecating. Only two percent of respondents identified cleaning a baby's stool as a critical time to wash hands and three percent before feeding a baby.

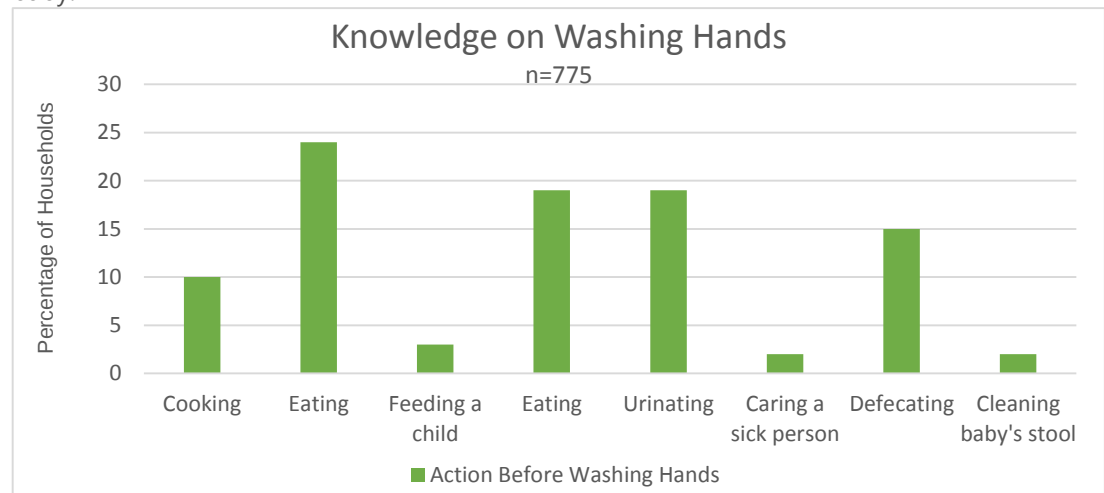


Figure 4 - Knowledge on Hand Washing

Only 48 percent of respondents identified diarrhea as a possible cause of poor hygiene. Only 59 percent of respondents had a separate place for washing and drying their utensils. These findings suggest more work is required on improved health behaviour and disease prevention hygiene and the review the way sanitation promotion campaigns are run by district chapters, given there was a planned 100 percent population coverage across all VDCs.

Indicator 1.2.3 - % of working VDCs declared Open Defecation Free (ODF)	Baseline 79%	Endline 100%	Target 100%	Status Achieved
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Data was collected from FGDs with district water supply and sanitation members and WASH beneficiaries and explored whether communities defecate into a toilet rather than in the open environment. Thanks to CLTS, communities conducted their own appraisal and analysis of open defecation and took action to become 100 percent ODF throughout all VDCs. The application of CLTS successfully triggered the community's desire for collective change, and propelled them into action, encouraging innovation, mutual support and leading to a greater sense of ownership and sustainability. These results are impressive, especially when considering the technical and logistical challenges associated with the remote locations.

Outcome 1.3: Level of achievement

Households and communities' health risk including vulnerable and traditionally marginalized groups, reduced by practicing healthy behaviours. (HEALTH)

It was found that the program had been highly effective in resourcing outreach clinics, and female community health volunteers (FCHVs) with basic equipment and pregnant women with long-last insecticidal nets (LLIN). This proved instrumental in improving the capacity of health clinics and volunteers to help service marginalised groups (family planning, taking the weight of children, outpatient clinics). Although, in one FGD with health beneficiaries in Rasuwa, they had not heard of LLIN. Contributing to declared total immunization status across all VDCs is arguably the most significant achievement in this regard thanks to the work of FCHVs.

Beyond the provision of supplies and equipment however, it was found that knowledge and practice relating to healthy behaviours was poor, consistent with findings with respect to hygiene behaviour under WASH. In discussions with the health sector specialists from ARC, a

Psychosocial support ranked as the third most pressing need among earthquake-affected communities in Rasuwa, Nuwakot and Makwanpur
2017 TPO Mental Health Assessment

premature decision was made in December 2017 to phase out of the health program and divert to recovery programming in livelihoods, shelter and WASH programming. This decision was seen as feasible given that hardware activities (operationalising and equipping outreach clinics, equipping pregnant women with LLINs, equipping community health volunteers with emergency kits) had already been conducted and where relevant, handed over to government. However, it resulted in important behaviour change activities that had originally been planned, either not been fully conducted or not begun at all. This ultimately constrained communities and households practicing health behaviours, where negative trends were recorded.

Apart from the training of social mobilisers and volunteers in disease prevention and health promotion, limited household and community capacity building took place. This included training of trainers (ToT) in community-based health and first aid in action (CBHFA), (33 percent achievement against life of program targets), health workers trained in safe motherhood (22 percent achievement status), people trained in conducting emergency response (0 percent achievement status), volunteers and social mobilisers trained in psychosocial support (76 percent achievement) and people referred to psychosocial counsellor (0 percent achievement).

In 2017 an “Assessment of the Mental Health and Psychosocial Status and Needs of Earthquake-Affected Communities”, was conducted by Transcultural Psychosocial Organization Nepal (TPO Nepal) in Rasuwa, Nuwakot, and Makwanpur Districts. The key finding was that the lack of support to cope with stress and anxiety was the third most common need (61 percent) among earthquake-affected communities, behind livelihoods (73 percent) and shelter (64 percent).

Despite mental health and psychosocial support being integrated into the Utthan recovery program, it was revealed by the health sector specialist at ARC that no referral centre existed in the community, nor was there expertise available to conduct psychosocial activities in the community. This is despite original plans to partner with TPO in the delivery of psychosocial programming. As a result, program activities related to psychosocial services were dropped.

“I received stress management training, but I couldn’t counsel the earthquake victim, so I tried to divert their attention to the recovery activities” (Kil Rasuwa)

Indicator 1.3.1 -% of people having knowledge of improved health practices (e.g. preventable disease, epidemic, immunization).	Baseline N/A	Endline N/A	Target 75%	Status Negative trend
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This indicator measured the percentage of people having knowledge of improved health practices on diarrhoea, malaria, maternal health. Households were asked whether they attended any health-related training, their knowledge on the causes and treatment of diarrhea and malaria and knowledge related to pregnancy and antenatal care (ANC). Because of the difficulties associated with compiling non-cumulative results into one standard indicator, an overall value could not be assessed. Nevertheless, a number of proxy indicators reveal some negative trends¹⁵ associated with knowledge of improved health practices.

Only 10 percent of respondents attended any health-related training. Despite 100 percent of the total VDC population being reached with health campaigns, only 20 percent could identify contaminated water and eight percent not washing hands with soap after defecation as causes for diarrhea. Whilst 91 percent of respondents knew when to apply oral rehydration therapy (ORS), nearly half the respondents (49 percent) did not know how to prevent malaria. Only 20 percent identified a malaria net as a way to prevent malaria.

¹⁵ Whilst baseline data was not available for these proxy indicators, evaluation team sector specialists were able to ascertain, on balance, whether positive or negative trend were observed.

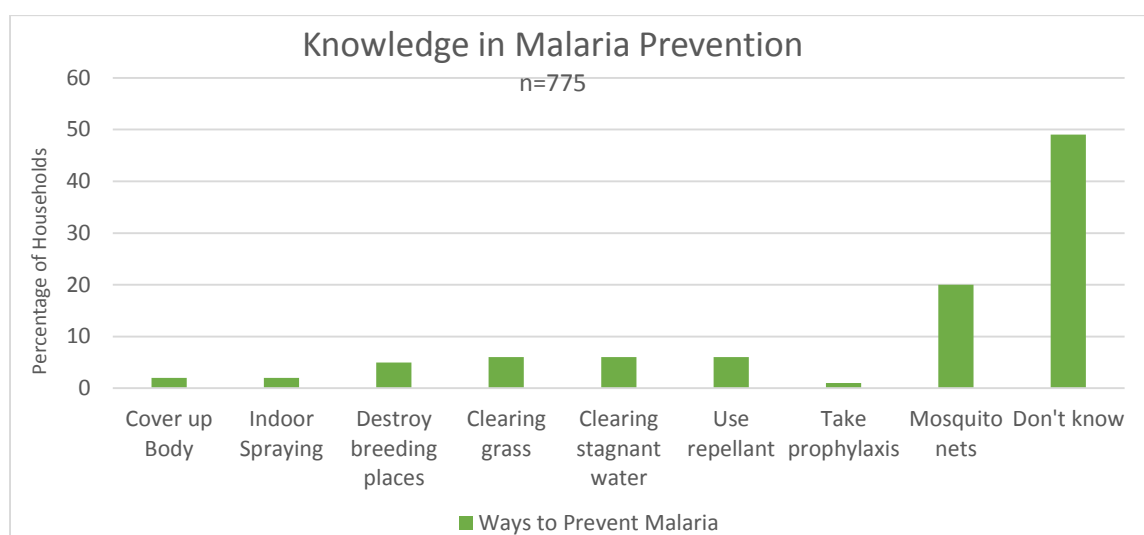


Figure 5 - Knowledge in Malaria Prevention

Knowledge on maternal health was more promising with 61 percent of respondents correctly identifying the need to receive ANC four or more times during a pregnancy, 80 percent knew where to go for ANC services, and 67 percent could identify 2-5 years as an optimal period for birth spacing. Given that this is an ongoing activity by most health posts, this result is not surprising. For all proxy indicators no significant variation in the findings occurred between the two strata.

Indicator 1.3.2 - % of people practicing improved health behaviour (e.g. preventable disease, epidemic, maternal and child health including immunization).	Baseline N/A	Endline N/A	Target 60%	Status Negative trend
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In order to measure the indicator, sampled households were asked a series of questions relating to what they do when they fall sick, frequency of visiting health facilities/outreach clinics, actual treatment for diarrhea, pneumonia and use of mosquito nets. Because of the difficulties associated with compiling non-cumulative results into one standard indicator, an overall value could not be assessed. Nevertheless, a number of proxy indicators reveal some negative trends associated with practicing improved health behaviour.

Fifty-nine percent of respondents reported that during the preceding six months, at least one household member fell sick, with fevers reported in 51 percent of cases and stomach aches in 24 percent of cases. In 68 percent of cases a family member fell ill to diarrhea within the last six months, with 64 percent treated with ORS. Less than one percent of respondents contacted a FCHV when they fell sick, with 96 percent attending health facilities for treatment.

Almost 100 percent (99.05 percent) of children under two years are fully immunized (60 percent) or partially immunized (39.05 percent). However, 35 percent of respondents do not have a vaccination card or could produce it when requested. Almost half (49 percent) of respondents used a mosquito net on the night before the survey took place. While this is significantly higher than the 20 percent of respondents that could identify mosquito nets as a way of preventing malaria, the difference could be due to the fact that FCHVs distributed 2,615 LLINs, but did not provide malaria prevention education as part of the distribution. For all proxy indicators no significant variation in the findings occurred between the two strata.

Indicator 1.3.3 - % of supported outreach clinic become operational.	Baseline N/A	Endline 100%	Target 80%	Status Achieved
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This indicator measures the number of outreach clinics which were supported by NRCS (essential medical and non-medical equipment) and are now operational as primary health care service providers. According to the outreach clinic database, all 29 clinics were recorded as fully functional (11 Makwanpur, 7 Rasuwa, 11 Nuwakot), and providing a range of services, including immunization, ANC, family planning, medicine distribution, basic medical treatment.

Services in Makwanpur generally operated two days per week, six days a week in Rasuwa and one to two days a week in Nuwakot.

Technical observations conducted across all districts at four health posts in Bhalchhe, Kaule, Bhorle and Thaha corroborated database findings, revealing that all health posts were functional and were conducting outreach clinics as required, with good utilization of health services by local people. Observed health posts were equipped with essential equipment required for patient examination and had received basic emergency preparedness for disasters, were equipped with basic WASH facilities including toilets and had health education materials available to educate people. Observation showed that all the health posts had adequate space available for patient waiting area, examination, medical procedure and drug storing and dispensing. For greater analysis on the functionality of the health posts, please refer to the Health Technical Report found in *Appendix E*.

Outcome 1.4: Level of achievement

Enhanced household and community capacity including vulnerable and traditionally marginalized groups, to sustainably increase production and income. (LIVELIHOODS)

The livelihood component of the *Utthan Program* was underpinned by a livelihood approach which provided a conceptual framework for transitioning along a continuum from an early recovery phase through to recovery (phase 2) and development (phase 3). With support from the Spanish Red Cross, a significant shift in capacity took place from early recovery to recovery for vulnerable earthquake-affected households and communities in asset building; livelihood diversification and human/social capital.

Whilst interventions were roundly supported at the household level, its delayed roll out during phase one and two undermined impact as a development strategy (collective initiatives were only conducted in one VDC per district as a pilot program, nine months prior to phase out). In KII, it was indicated that delays were attributable to policies related to staff recruitment and procurement that had not been scaled up for the ERO.

Planned activities supporting Outcome 1.4 at the beginning of the program included training in agriculture and livestock production, cash grants to increase investment capacity, off-farm vocational training, and strengthening of savings and loan groups for women.

Average income across the three districts increased 22 percent compared to baseline

97 percent increase in the proportion of people who saved compared to baseline

30 percent increase in the proportion of households above survival thresholds compared to baseline

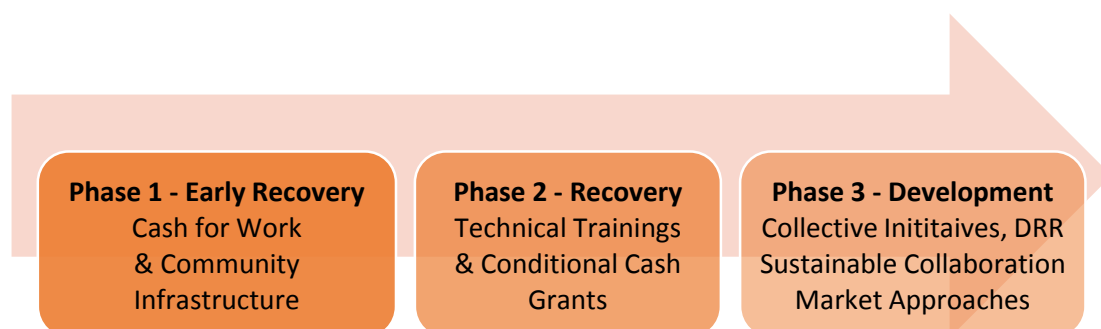


Figure 6 - Recovery to Development Continuum

Production - Based on survey findings from the April 2019 *Utthan Livelihood Component Endline Report*¹⁶, the program successfully distributed 2,917 (100 percent of life of program target) second instalment cash grants, leading to a significant increase in investment and productive capacity (purchasing livestock or agricultural inputs) and asset building. The number of poultry owned per household increased from two (2) at baseline to nine (9) at endline, whilst the number of goats owned increased from three (3) at baseline to five (5) at

¹⁶ The unit of study for the Livelihoods Endline Evaluation, which was the source for the quantitative findings in this report, was across three different strata (livestock, agriculture, others), compared to the shelter and non-shelter stratum for this evaluation. As a result, it was not possible to draw conclusions as to whether being a shelter beneficiary impacted livelihood outcomes.

endline. Interviews with social mobilizers and community people revealed that the slightly lower result for goats was due to many dying due to disease.

Whilst the program coordinated well with government on training in livestock and agricultural production, there was an apparent lack of collaboration on other services. Interviews with the District Livestock Office (DLSO) for example revealed there was greater scope for collaboration on animal medicine, vaccination, improved breeding and feeding, a factor that may have reduced goat deaths.



Goat Rearing - NRCS

It was noted however, that in the second cash grant instalment, some beneficiaries did not purchase the required number of livestock. Similarly, discussions with revealed some households were living in the goat sheds constructed through the first cash grant, some households had other livestock also within the sheds, and some sheds were not used at all. These examples highlight weaknesses in post-distribution monitoring.

Building human capital by training of 2,829 vulnerable households (100 percent target) significantly improved agricultural and livestock practices. The introduction of small-scale technologies to farmers was significant as part of this process. The introduction of mineral blocks for example have supported a change in the way farmers feed

their livestock.

Income - Compared to baseline, there had been a modest increase in average income across all three districts (22 percent), with Makwanpur increasing 36 percent, Rasuwa 18 percent and Nuwakot 14 percent. In total, 46 percent of the households were found to have two sources of income, 28 per cent with only one source and 22 per cent with three sources. It was found that most of the livestock and agriculture beneficiaries had two sources of income (50 per cent and 44 per cent respectively), however it was not evident that diversification of livelihood assets encompassed both livestock and crop production.

Greater improvements in income may have resulted however, if Participatory Market Chain Group (PMCG) activities had begun earlier. Unfortunately, activities with respect to the commercialisation of the agricultural sector and the development of market-orientated production (collective initiatives) only began in November 2018, nine months prior to phase out, despite the significant need, a point repeatedly expressed in FGDs.

"We want to sell our produce, even though we may get less profit, instead of having the produce rot." (FGD Nuwakot)

However, with 80 percent of sampled households producing only enough food to last six months, it is unlikely, at least in the short term, that farmers would have sufficient capacity or surplus to move beyond subsistence to commercial agriculture of any significant scale.

Similarly, off-farm vocational training and employment support was not pursued by the program, despite being planned. In KII with Red Cross staff it was revealed that vocational training was not pursued after subsequent assessment reports revealed difficulties in finding a trainer as well as difficulties for participants attending lengthy certified training programs far from home. It is interesting to note that the British Red Cross faced similar dilemmas, however a market assessment in association with local governments, education/training institutes, local companies, Chamber of Commerce, and communities identified existing marketplaces to assist program beneficiaries to prioritise business products and services according to district, sector and gender. To improve training access, it sought to provide cash grants to assist beneficiaries.

The *Utthan Program* did provide cash grants to beneficiaries owning off-farm enterprises, such as retail shops, tailoring, beauty parlours, snack shops, wood work and blacksmiths, but this was the limit of the support.

Furthermore, it was remarked by some FGD participants that because the level of education is very low in some remote communities, it would have been good to consider vocational training to build the capacity of uneducated youths. Savings group FGDs indicated they would like to have the skills and knowledge to expand their agricultural enterprises or diversify into other enterprises with the money they have saved, but do not have the support required to do this.

Whilst there was a 97 percent increase in the proportion of people who have made savings (up from 44 percent at baseline to 87 percent at endline), thanks to the establishment/strengthening of 64 savings groups, there has not been a significant increase in the amount of savings made, with 78 percent of sampled households saving less than 500 NPR a month. KI interviews revealed that the modest rise in income prevented a significant rise in savings, as well as additional capital outlays and loan repayments to supplement the government grant and Red Cross funding to construct a permanent disaster resilient structure.

Nevertheless, in focus group discussions with savings groups, it was reported that access to financial services through community groups, or financial institutions have increased. Group members stressed on the importance of savings as a cushion against the risks associated with disaster, suggesting that there is a sense of internalisation among the community members regarding savings. FGDs revealed that savings group loans have been used to support income raising activities for women, including kitchen gardening, raising goats and chickens. This has greatly supported women's economic empowerment at the grass root level.

The group-based approach was generally found to be effective, building social capital through forums of mutual exchange and support. The program successfully established/strengthened 64 savings groups (target was 63), and three (3) collectives that supported the development of human capital by increasing skills and knowledge in agriculture, livestock and savings methodologies.



Livelihood Promotion - NRCS

It is arguable however whether the livelihoods component of the program was successful in shifting communities from a phase of recovery (and subsistence) to that of development. Whilst the program was successful in meeting the basic needs of communities, such as conducting cash for work and community infrastructure (asset building) (see Outcome 2.3) in the early recovery phase, along with technical trainings and cash grants during the recovery phase (diversification of livelihoods and

human capital), it was not evident that a shift from recovery to development was achieved. Without a sustainable increase in income and savings (through collective production, market-orientated production, employment through vocational training), sustainable collaboration with partners and disaster risk reduction, it is less likely that adaptive and transformative capacities can be supported.

Indicator 1.4.1 - % of target households meet their livelihood protection thresholds.	Baseline 43%	Endline 65%	Target 60%	Status Achieved
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The livelihood protection threshold represents the total income required to sustain local livelihoods. This means total expenditure to ensure basic survival needs, as well as maintaining access to basic services (e.g. routine medical and schooling expenses), plus sustaining livelihoods in the medium to longer term (e.g. regular purchases of seeds, fertilizer), and finally achieving a minimum locally acceptable standard of living (e.g. purchase of basic clothing, coffee/tea). The threshold was calculated by adding all income from different sources minus the cost of food, medical expenses, education expenses, agricultural expenses and other expenses (clothing).

At baseline it was found that 43 percent of households met their livelihood protection thresholds. Disaggregated by district Makwanpur had 50.3 percent of households above the threshold, Rasuwa recorded 45.2 percent, whilst Nuwakot recorded 37.5 percent.

By end of program, 65 percent of sampled households were above the livelihood threshold, well above the life of program target of 60 percent. This was marginally greater than the 60 percent life of program target. Disaggregated by district Makwanpur recorded 74 percent of

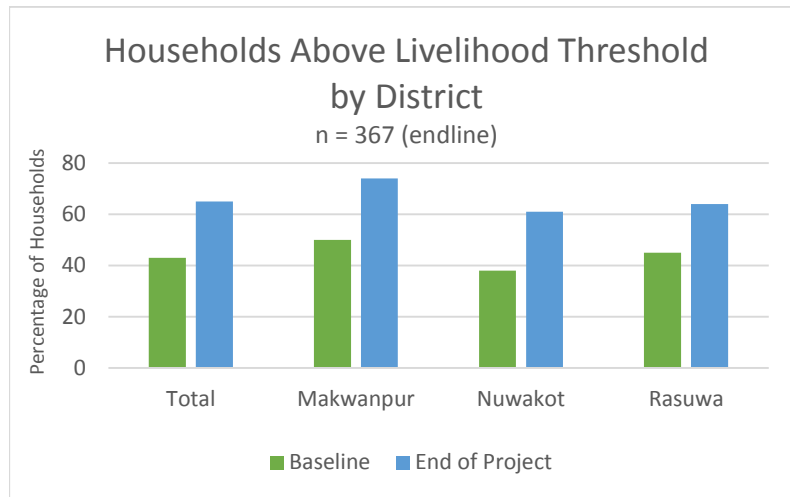


Figure 7 - Households Above Livelihood Threshold by District

(average increase of 22 percent across all three districts), and livelihood thresholds, is in part attributable to cash grants supporting investment and productive capacity), along with improved diversification, and farming practices (over 80 percent of sampled beneficiaries believed productivity levels increased). It is likely however that diversification of livelihood assets to encompass both livestock and crop production as well as developing market linkages and market-orientated production would have supported more households above livelihood protection threshold levels.

Indicator 1.4.2 - % of target HHs (most vulnerable) meet their survival thresholds	Baseline 64%	Endline 83%	Target 60%	Status Achieved
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This indicator measures the household selected for livelihoods support that meet their survival thresholds. Whilst livelihood thresholds focus on household capacity to sustain expenditure on a broader range of short and longer term needs, the Household Economy Approach method defines the survival threshold as the total income required to cover, 100 percent of minimum food needs, plus the costs associated with food preparation and consumption (i.e.

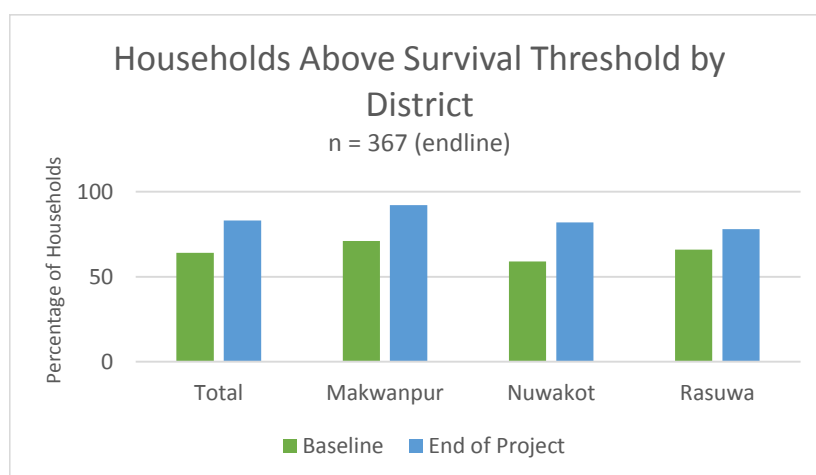


Figure 8 - Households Above Survival Threshold by District

households above the threshold, Rasuwa 64 percent, and Nuwakot 61 percent. The evaluation findings also revealed that Nuwakot recorded the highest cost of living, resulting in less households meeting livelihood thresholds compared to the other districts.

The rise in household income

salt, soap, fuel for cooking and lighting), as well as water for human consumption. The indicator was calculated by subtracting food and water costs from the total annual household income.

At baseline, 64 percent of all households could meet their survival

thresholds, with Makwanpur having 70.7 percent of households above the threshold, Rasuwa with 65.7 percent and Nuwakot recording 59.2 percent. Those households with agriculture being their primary source of income were least likely to be above the survival threshold (59.6 percent). Whilst households with skilled labour (87.0 percent) and those owning a retail shop (88.9 percent) were more likely to be above the survival threshold. By end of program, 83.1 percent of sampled households were above the survival threshold. Disaggregated by district Makwanpur recorded 92 percent of households above the threshold, Nuwakot 82 percent, and Rasuwa 78 percent.

Indicator 1.4.3 - % of target household have adopted improved farming practices	Baseline N/A	Endline 97%	Target 80%	Status Achieved
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This indicator explores the application of learning into practice and specifically measures beneficiaries who adopted two or more improved practices as a result of training in goat and chicken rearing as well as off-season and cash crop production. The findings revealed that 100 percent of sampled beneficiaries adopted at least one practice learned in the training, whilst 97.2 per cent of the beneficiaries adopted two or more practice.

In case of goat rearing, 97 percent of sampled households had adopted at least two improved practices. One-hundred percent of those surveyed had constructed a goat shed, whilst 89 percent had insurance. In relation to own a shed, the 100 percent finding is attributable to the strict monitoring put in place by Red Cross, by only releasing the first tranche of the cash grant to households who had constructed the shed. However, despite the construction, some households were observed to be living in it, whilst other households had other livestock within the sheds, and some sheds were not used at all.

With respect to poultry rearing, 100 percent of households surveyed had adopted at least two improved practices. Construction of a ventilated shed was reported in 100 percent of cases as well as providing clean water and feeders (95%). Similar to the goat shed, the reason for majority of the households constructing the ventilated poultry shed was attributed to the strict monitoring by Red Cross. Culling practices and feeding rations were reported in less than a third of all cases (24 percent and 29 percent respectively). Interviews revealed that this was attributable to households selling off their chickens.

Eighty-six percent of households surveyed had adopted two or more off-season crop practices with plastic tunnelling (97 percent) and organic manuring (84 percent) proving most common.

Interviews revealed that the continuation of improved practices would be highly dependent upon the financial position of the beneficiaries. In some interviews it was highlighted that improved practices such as the up-lifting of sheds, and insurance may not continue after program support ends due to the financial burden placed upon beneficiaries.

Indicator 1.4.5 - % of household increased their farming productivity	Baseline N/A	Endline N/A	Target 75%	Status NOT ASSESSABLE
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Data from the April 2019 *Utthan Livelihood Component Endline Report* revealed that a perception survey was used to measure productivity by asking HH whether they perceived if their production increased. Overall, it was found that 83 percent of households perceived that production had increased. However, this data has its limitations. Firstly, perception is not an accurate measurement, suggesting that farmers did not keep diaries. Interviews with farmers confirmed this to be the case. Secondly, production is not the same as productivity.

Using food self-sufficiency as a proxy for productivity, it was revealed that eighty percent of sampled households produced enough food to last six months, with 30 percent stating they could only produce enough food for one to three months. At the time of the baseline, nine (9) percent of households surveyed indicated they could produce enough food for 12 months. By endline, this had only increased to 10 percent.

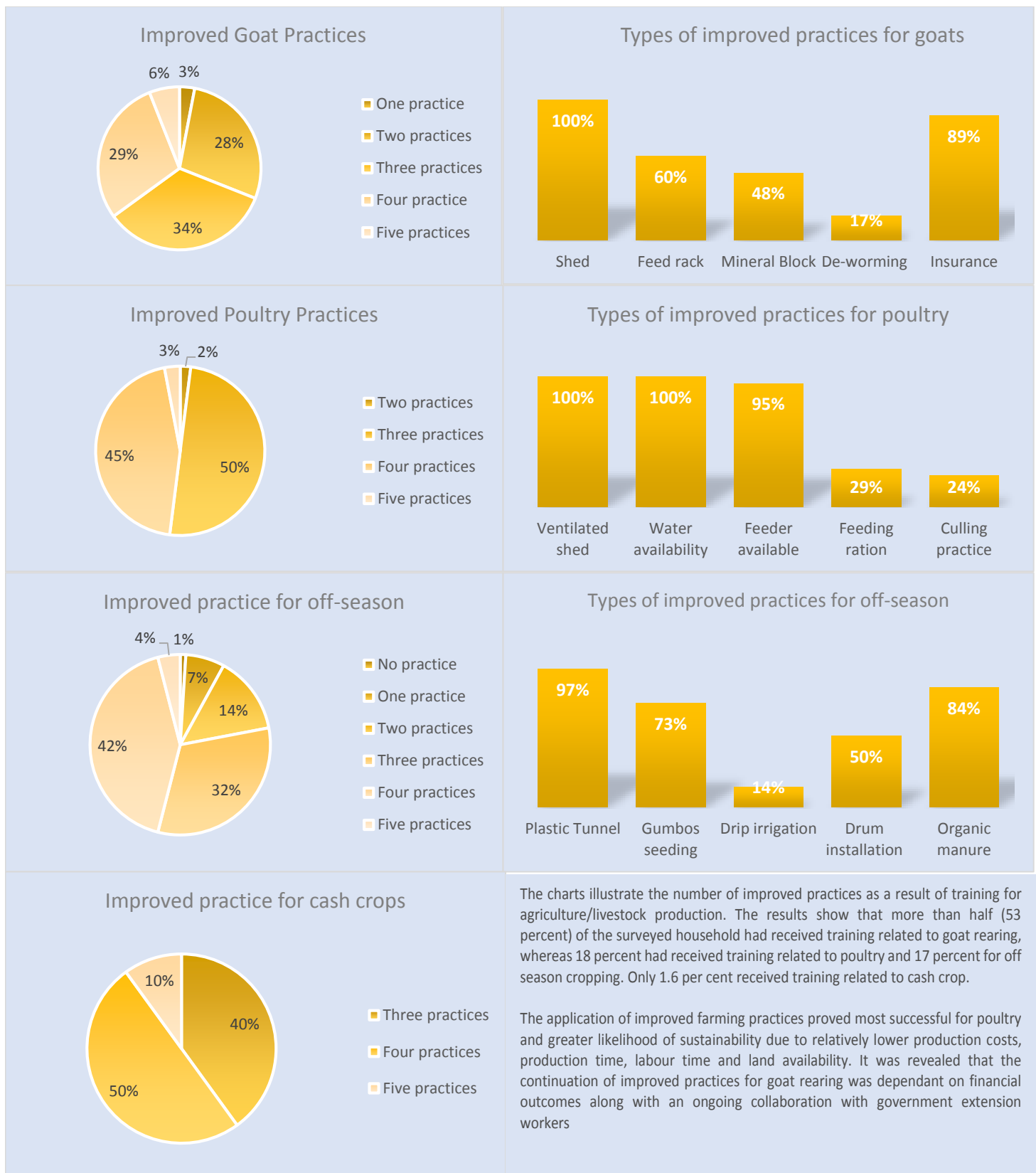


Figure 9 - Improved Farming Practices

Indicator 1.4.6 - % of trained people applied new knowledge and skills to acquire a paid job (employment or self-employment).	Baseline N/A	Endline N/A	Target 50%	Status NOT ASSESSABLE
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Over the course of program implementation, it was decided that promotion of non-agricultural livelihoods, including vocational training would no longer be pursued - the indicator has thus become redundant.

In Interviews with the livelihood sector specialist from ARC, it was revealed that it was difficult to find a consultancy firm to conduct vocational training because of the demand for training consultants after the earthquake. It was also indicated that the vocational training process was time intensive and because there were relatively few beneficiaries targeted a management decision was made by NRCS to reallocate underspent budget to cash transfers and in so doing, increase the number of overall beneficiaries.

Having said that, it was found that the only three non-agricultural income sources were found to be job/pension, businesses and remittances. Around 15 percent of households surveyed received income from either of these sources.

Outcome 1.5: Communities increased capacity to manage their recovery and address other needs as a cohesive and inclusive community. (COMMUNITY MOBILIZATION)

In general, there was a positive experience across all districts and sectors relating to community capacity to increase recovery as a cohesive and inclusive society. Inputs such as the training of masons in safer building techniques, livelihoods and livestock training, awareness-raising related to health issues are all contributions to local capacity strengthening valued by community members participating in FGDs. Locally trained masons assisted in building earthquake-resistant houses and at the same time were provided with skills that remain an asset to the community. Similarly, the creation and support of water user committees (with operation and maintenance [O&M] funds to support the ongoing maintenance of the installations), training of FCHVs, working through mother's health groups, and the establishment/strengthening of savings group, are all examples of supporting existing structures and strengthening the social capital of the community.

Crucially, the program has strengthened the connectedness of communities to line agencies and district level resource organisations which is contributing to resilience building. The recruitment and training of 227 volunteers (such as FCHVs and Red Cross volunteers) and social mobilisers from the local communities (95 percent achievement against life of program target) where the RC operated can also be considered a contribution to strengthening local capacity.

The establishment of Recovery Action Groups (RAG), which were involved in the targeting of activities such as health trainings together with volunteers, are now dissolved because the recovery operation has finished is seen as a lost opportunity however. This is particularly the case in relation to disaster risk reduction (DRR), which should have been at the heart of the program, and the potential to integrate RAGs into other permanent community structures such as Community Disaster Management Committees (CDMC) or Local Disaster Response Management Committees (LDRMCs) as part of a sound transition and exit planning.

Indicator 1.5.1 - % of community forums (RAG) for mobilization, planning and action are functional in the working areas	Baseline 0	Endline N/A	Target 60%	Status NOT ASSESSABLE
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A total of 52 RAGs were established and functional in six VDCs across all three districts. Of those established, 37 RAGs (71 percent) had at least one or two females in a decision-making role (18 of those groups were located in Nuwakot). This was below the 90 percent target set. Fourteen of the 37 RAGs had one disabled group member that was in a decision-making role (14 of those groups were in Rasuwa), whilst 20 groups had between one to five Dalit members in decision making roles (half of those in Makwanpur).

In terms of RAG functionality, it was not possible to measure this indicator as the monitoring information system did not collect this data. In KII at HQ level it was revealed that RAGs were

instrumental in the community level planning process, which proved very effective in the early recovery phase given the lack of local government representation. After political restructuring nation-wide, the election took place and new local government representatives came were elected. As a result, a local government structure at community level was identified as the formal institution for planning and implementation in the community. This resulted in RAGs gradually becoming redundant. It was noticeable that FGD Participants did not talk about these groups.

Outcome 2.1 Increased household and community including vulnerable and traditionally marginalized groups, access to financial, human resource, material and other resources needed to build locally acceptable and safer structures. (SHELTER)

Despite substantial government delays in 2016, NRCS assistance in shelter construction considerably enhanced the capacity of the Government of Nepal to deliver earthquake-resistant housing to families who lost their houses. Overall, the program was highly effective in helping earthquake-affected households' access financial, human resource and materials to completely construct 2,885 houses. The program was very effective in improving access to human resources support, including access to:

- Trained masons/carpenters,
- Mobile construction monitoring and supervision teams,
- A network of Technical Support Centres providing free house design/drawing, BBS awareness, information about the government established homeowner-driven reconstruction program and a technical helpdesk staffed by civil engineers
- On-site monitoring application to survey, track and evaluate the progress of each household

In addition, the program improved access to financial resources by providing a 300,000 rupees cash grant, divided into four tranches, which was then paid the masons/carpenters. Each household received each subsequent tranche based on reaching certain construction milestones, ensuring each house met agreed standards, based on government guidelines. Table 4 contrasts National Reconstruction Authority (NRA) tranche approvals, with that of NRCS, indicating that the percentage of houses meeting safer building standards through to completion is 94 percent (as indicated by recipients receiving their fourth tranche), compared to the NRA which almost half the NRCS rate. This high level of reconstructed houses would not have been possible without the technical support that was provided to homeowners, and the funding from ARC.

	NRA (June 2019)*		NRCS (March 2019)	
	HH Numbers	%	HH Numbers	%
First tranche received	669,147	92%	3,031	100%
Approved second tranche applicants	533,538	74%	2,968	98%
Approved third tranche applicants	N/A	N/A	2,892	95%
Approved fourth tranche applicants	418,304	58%	2,878	94%
Housings constructed	388,395	54%	2,885	95%

Table 3 - Comparison of NRA/NRCS House Construction Statistics

*(NRA, CLPIU-GMALI 2019)

"In the past everything used to be in the same place like goats, kitchen, sleeping etc. in new house by Red Cross, we can sleep in one room while cook and eat in another. This is new concept where we have a house with a partition and with different rooms." (FGD Makwanpur)

Cash grants were transferred using the banking system, which assisted in maintaining transparency/accountability. However, it did create challenges for some vulnerable groups to access cash because of their remoteness. Additionally, the evaluation team consistently heard through both FGDs and KIIs that the grant cap of NPR 300,000, which was set by the government, was generally insufficient in order to construct a new house. Costs in most cases have come to NPR 800,000 to 1.2 million, driving many households into smaller homes. In over a third of all cases observed it was reported that one or two roomed homes were not sufficient for family requirements. In other instances, households were very thankful. Greater analysis can be found in the Shelter Technical Report, located in *Appendix C*.

“Only having two rooms is difficult. Before, our parents used to stay downstairs, and we used to stay upstairs separately. Nowadays there is only two rooms. It is inadequate” (FGD Makwanpur)

In many instances, households have been forced into debt in order to just complete their home. Among beneficiaries in the livelihood sector, it was found that households had an average loan of NPR 127,205, a significant increase from the baseline amount of NPR 51,831. This finding was backed up through FGDs with community groups in Nuwakot and Rasuwa, asserting that earthquake-affected households were burdened with huge loans because of the government-imposed cap on the value of the grant they could receive. There were a number of cases where families had to take out NPR 300,000 - 600,000 loans at high interest (14% > 20% depending on the source). Coupled with only modest rises in income, the burden of debt was a significant contributor to low levels of savings being recorded among livelihood beneficiaries (78 percent of livelihood beneficiaries had less than NPR 500).

Whilst shelter top-up cash was provided to 104 most vulnerable families, it was acknowledged in KII discussions with ARC and in community FGDs that more could have been done support vulnerable households. Providing in-kind materials for toilet construction, or low-tech rain water harvesting from rooftops or solar lighting as an important backup to community supply or providing cash incentives to advance construction were examples mentioned. According to shelter database records, 23 percent of cases solar was provided. It was also suggested that the Movement could have used its legitimacy and leadership by joining coalitions with other international and local agencies to advocate for lifting the reconstruction grant cap of 30,000 NPR and the provision of additional support for highly vulnerable households beyond the 50,000 rupees already being mandated.

The main challenges experienced related to changes in government policy, including the amount distributed to each owner changing from two to three lakh, changes to deadlines to complete construction for different tranches, and the backlog and slow approval of tranches, causing delays in construction.

Indicator 2.1.1 - % target households living in shelters meeting agreed standard per government guidelines (based on 10 key message/criteria)	Baseline 3%	Endline 95%	Target 95%	Status Achieved
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This indicator measures the percentage of beneficiaries living in newly constructed shelter that meets agreed standards as per government guidelines. Whilst the life of program target was 3,106 households supported with shelter reconstruction, 3,031 households received the first tranche and began construction. Of those 3,031 households, 95 percent or 2,885 finally meet the agreed standard set by the government, up from three percent at baseline, successfully meeting the life of program target set by the program.

Outcome 2.2: Increased household and community access to locally acceptable, gender sensitive and disaster resilient WASH services. (WASH)

With the lack of access to water identified during FGDs as a major concern for communities visited during the evaluation with water sources having either dried up or systems destroyed

after the earthquake. Thus, it is unsurprising that the focus on the construction of drinking water systems within the WASH programme is highly valued by affected communities, together with the work it is carrying out to support household toilet construction and training in maintenance and cleaning.

FGDs indicated that the impact of the program was significant, improving the situation pre-earthquake in many instances, while the focus on household toilet construction is strongly contributing to VDCs being able to declare themselves ODF once again. NRCS support for toilet construction has also helped improve access for 3,513 households and for people with a disability, NRCS has constructed 51 disable-friendly toilets throughout the life of the program. Although there was no alternative signage observed for any toilet facilities for people with disabilities. NRCS has also built the image and relationship with district level line agencies. In all 3 districts it was revealed that line agencies, including the Chief District Officer (CDO) believed that NRCS is among the most trusted partner in the district.

Findings indicate that stratum-I households fared much better in terms of access to clean water less than 10 minutes from their home, sufficient water allocations, and less challenges with water supply. Similarly, stratum-I households had more toilets constructed by Red Cross than stratum-II. Both these findings indicate that access to WASH infrastructure was disproportionality focused on shelter households. While this finding in and of itself is not necessarily negative, and may in fact be cost-effective, it nevertheless highlights that a significant proportion of the overall expenditure of the program – well over 80 percent, was channelled into four of the 19 VDCs.



Gender and disability-friendly toilets - NRCS

Schools visited have been provided with both, upgraded toilet facilities and water points. The new school toilets also provide easy wheelchair access and wall supports to aid people with disabilities, although these were not observed to have additional signage for children with disabilities. Toilets are gender segregated and child friendly. Female toilets at high schools included disposal of sanitary pads by

way of incineration. Toilets and urinals seen had differing heights so as to accommodate smaller children. Similar to water points in villages, those in schools enable easy access for children, adults and people with disabilities.

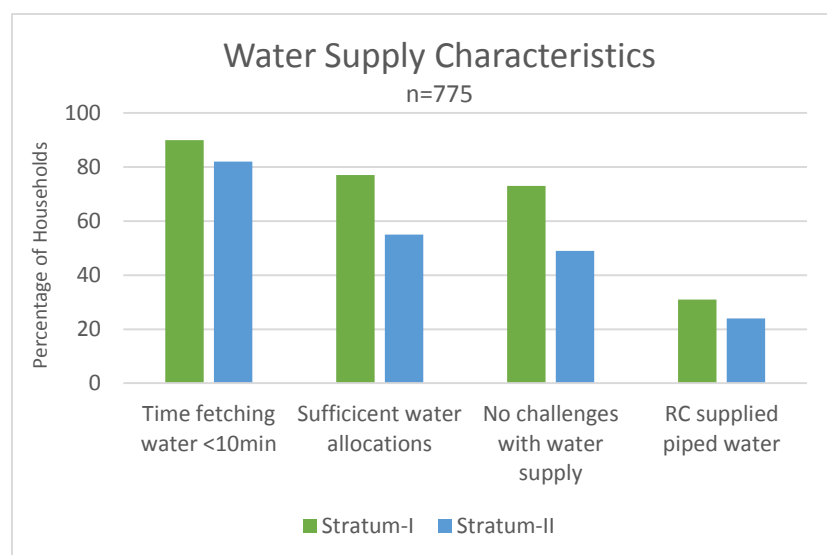
KIs however revealed a widespread view that work on water schemes should have started much earlier; not having sufficient water available has impacted not only on the wellbeing of people, but also on the ability of shelter activities to progress. In the view of a number of informants, NRCS could have signed an agreement with the Department of Water Supply and Sewerage (DWSS) at the beginning of 2016 (as opposed to July 2016) in order to move forward in implementing activities. Additionally, there were several cases of design and construction issues relating to water schemes, as well as access issues that have been explored more in the WASH Technical Report, located in *Appendix D*.

Indicator 2.2.1 - % of people that have access to safe and adequate water supply facility	Baseline	Endline	Target	Status
	86%	N/A	75%	Positive Trend

This indicator measures the percentage of population who have access to safe and adequate water supply facility. Respondents were asked what their main source of water supply is for their family, how long it takes to fetch water, if the available water is sufficient for daily use, and whether they treat their water.

Because of the difficulties associated with compiling non-cumulative results into one standard indicator, an overall value could not be assessed. Nevertheless, a number of proxy indicators reveal positive trends¹⁷ associated with access to safe and adequate water supply.

For 87 percent of respondents, fetching water takes less than 10 minutes. This compares to the past where FGD revealed that many households reportedly took hours to collect water. Stratum-I (shelter) recorded 90 percent of respondents taking less than 10 minutes to collect water, whilst stratum-II recorded 82 percent. The fact that almost 10 percent of shelter households, according to Red Cross shelter database records, received additional water supply support is a contributing factor to account for this difference.



A total of 62 percent of households use piped water as their main source of water supply. With 23 percent indicating that the piped water was supported by Red Cross (stratum-I recorded 31 percent and stratum-II was 24 percent). However, only 66 percent of households remarked that current water

Figure 10 - Comparison of Water Supply Characteristics

allocations are sufficient for their daily use. Again, this percentage was higher for stratum-I beneficiaries which recorded 77 percent, whilst stratum-II recorded 55 percent. Similarly, for challenges with water supply in households, overall, 39 percent of households recorded challenges, with stratum-I recording 27 percent and stratum-II, 51 percent. Irregular water supply, tied to water allocations proved to be the greatest challenge faced among all households, suggesting sufficient water allocations need to be addressed by WASH-CCs, WUSC and NRCS to ensure that all households receive adequate water allocations for their daily use.

Indicator 2.2.2 - % of households have access to toilets with full use, operation and maintenance	Baseline 74%	Endline 98%	Target 85%	Status Achieved
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This indicator measures the percentage of households that have access to toilets with full use, operation and maintenance. Respondents were asked whether they have a toilet facility with sufficient water for daily use and cleaning.

Survey findings revealed that 98 percent of respondents had access to toilets (with no statistical difference between stratum-I and stratum-II), with significant attribution to Red Cross. Ninety-nine (99) percent of households had their toilet constructed after the earthquake, with 83 percent of respondents indicating it was constructed by Red Cross. In 99 percent of cases, stratum-I households had their toilet constructed by Red Cross, whereas only 67 percent of stratum-II households indicated that their toilet was constructed by Red Cross. The fact that 57 percent of shelter construction included provision of a toilet, according to Red Cross shelter database records, and that 51 percent of toilet construction (1,785 households out of 3,513 toilets constructed) overall was conducted in stratum-I VDCs (four VDCs out of a total of 19) can account for the differences in survey findings between the stratum.

¹⁷ Whilst baseline data was not available for these proxy indicators, evaluation team sector specialists were able to ascertain, on balance, whether positive or negative trend were observed.

Encouragingly, 94 percent of respondents were reported to be cleaning their toilet at least once a week, with 96 percent either using water (32 percent) or water and a cleaning agent (63 percent) to clean their toilet. Across all districts 87 percent of households now use a pour flush toilet. There was no statistical difference between stratum-I and stratum-II. With 100 percent of VDCs now declared as ODF it can be concluded that households are accessing and utilising the toilets.

Outcome 2.3 Increased household and community access to livelihoods infrastructure, assets and other resources to sustainably increase production and income. (LIVELIHOODS)

Cash for Work (CfW) was a strategy adopted in all the districts visited as part of the phase one early recovery approach in order to generate short term income and improve/construct 21 targeted infrastructure works, including irrigation channels, road improvements, foot trails and school toilets. Overall, 1,673 household benefitted from CfW exceeding the life of program target of 1,500. Discussions with beneficiaries revealed the participation in such activities were critical to meeting their short-term livelihood threshold needs, as well as repaying possible debts thanks to money received in exchange of their work. Communal infrastructure constructed through CfW was seen as critical to improving the productivity of agricultural production.

Community engagement throughout the process was extensive, whilst beneficiary selection included the use of vulnerability criteria, which ensured that the most vulnerable households benefitted and paid the minimum wage. Payment of the minimum wage was justified in KII with NRCS staff as this would ensure only the most vulnerable would participate. Nevertheless, decisions related to CfW have created confusion in some districts; community members in some districts suggested in FGDs that some people had been excluded due to their poverty status, while in other communities, community members said that they had been excluded due to their party-political allegiances. Some concern was raised that CfW (and cash grants) may negatively influence community cohesiveness and solidarity and may also not be suitable for marginalised people such as disabled individuals, the very young or the very old, although it was noted in KIIs that efforts were made to find appropriate CfW roles for disabled people, which is commendable.

Indicator 2.3.1 - % of HHs involved in CfW project spent their earning to cover their basic needs/services	Baseline N/A	Endline N/A	Target 80%	Status Positive Trend
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While this indicator was not directly assessed, FGDs revealed that livelihood beneficiaries are happy with the cash for work scheme, especially women, who reported that it helped them fulfil their small household needs including school supplies for children and food supplies in the kitchen.

Although this indicator is difficult to quantify through FGDs, the vast majority of discussions indicated that CfW activities helped to cover livelihood needs.

“The remaining money after food helped us in many problems. It did not meet larger needs but helped to fulfil normal needs.” (FGD Nuwakot)

Indicator 2.3.2 - % of HHs benefited by livelihood infrastructures report improved capacity to recover	Baseline N/A	Endline N/A	Target 75%	Status Positive Trend
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While this indicator was not directly assessed, FGDs revealed that access to communal infrastructure was seen as critical to improving the productivity of agricultural production by increasing the land that was irrigated (through irrigation systems) or by facilitating access to the VDCs and markets (through the improvements of roads or foot trails). Technical observations conducted across all districts of two irrigation schemes (Thulogaunn and Naamtar) and one road improvement in Kaule corroborated these findings. Irrigation schemes which are being managed by Water User Committees have improved cropping intensity by an

estimated 200 percent, whilst road construction has improved access for goods and services. Greater analysis can be found in the Livelihoods Technical Report, located in *Appendix F*.

Outcome 3.1/3.2: NRCS has enough skilled and diverse human resources and material assets to implement community-based recovery, resilience, disaster risk reduction and readiness to respond to programming

Underpinning the 4+1 integrated programme approach adopted in the Recovery Framework was institutional capacity building (ICB), based on the recovery principle that *“because district chapters provide comprehensive coverage of the earthquake-affected areas, recovery programmes will rely on this capacity in order to be effective, and [therefore] have the responsibility to develop and enhance it in line with NRCS expectations.”* This approach was based around the reality that District Chapter capacity was damaged and lost as a result of the earthquake, and that at least some of this capacity needed to be restored for normal programs to function properly. It also recognised that additional capacity was likely to be required for the duration of the earthquake recovery programs.

An ICB assessment was jointly conducted by Chapter, NRCS and ARC staff in all three districts, mapping existing capacity against the ‘minimum package’ in four broad themes, including staffing, safe and appropriate building, fleet and IT communications. Systems and processes were also considered as part of a separate capacity assessment process, although not part of any ‘minimum package’. Given the delays, which in the eyes of many key informants were due to challenges faced from inadequate NRCS policies, guidelines and procedures for recovery programming (finance, procurement, and staff recruitment/HR), it is recommended that future operational guidance should integrate corporate systems and process as part of any ‘minimum package’ to support ICB, and be widely disseminated. This would allow operations to quickly mobilise temporary structures in support of existing capacities within the NRCS and ensure clearly defined roles and responsibility and clear communication channels from the outset. KII’s with HQ staff revealed that guidelines, procedures and policies relating to finance, procurement and staff recruitment had been addressed by mid-program, although it was acknowledged that earlier would have prevented some delays.

Many trainings were conducted for staff and volunteers, including leadership, organization development, resource mobilization, GESI and planning, monitoring evaluation and reporting (PMER). However, there is a broader need to invest on creating an enabling environment for all to learn and contribute, remaining engaged in services in the longer term. It was remarked in KII at HQ level that in general, the majority of volunteer positions were filled by people recruited from outside the NRCS rather than existing volunteers, so it will be important in the next phase for the NRCS chapters to consider how it can retain some of these volunteers within their organisation over the longer term. Developing a retention plan and maintaining a database of trained volunteers at the very least should be key considerations, along with creating an enabling environment so volunteers can contribute, learn and grow through their engagement with Red Cross.

Similarly, the district level ERO structures are predominantly staffed by personnel coming from outside the NRCS and outside the district, resulting in lost capacity the organisation now that the program has phased out. This situation is also mirrored to some extent at HQ level, with much of the capacity that has been developed is now lost to the organisation, although the decision to second some staff from the main NRCS structure has enabled some of that experience to be re-absorbed back into the organisation.

It was noted in discussions at Chapter level that the safety of staff and volunteers was identified as a needed investment, with protocols required with appropriate tools and measures mainstreamed throughout the operation.

It was reiterated in KII with Chapter level staff that the Recovery Plan had not focused sufficiently on encouraging chapters to become active participants in the implementation of the operation. In most cases, chapters had limited previous experience of largescale humanitarian activities, so the operation provided valuable opportunities, for example learning

through participating in the whole programme management cycle required in implementing a large-scale recovery operation, developing institutional relationships with line agencies, local government structures and communities in their district. These experiences can also contribute to building chapter capacity and desire to continue community-focused work in the future.

It was also noted in KIIs at HQ level that the current ICB plan did not focus on performance management as a way of assessing and ensuring staff were carrying out their duties in an effective and satisfactory manner, and contributing to the overall program objectives. The ICB component of the Recovery Plan should aim to build on the core competences of NRCS as expressed in its 7th development plan; community resilience building should be at the centre of these plans.

The overall ICB strategy could be designed to cover three levels: the policy and strategic level; institutional and operational level; and the individual level focusing on skill and knowledge development

Indicator 3.1.1 - # of NRCS district chapter capacity is enhanced to be able to effectively implement activities incl. recovery program	Baseline N/A	Endline 3	Target 3	Status Achieved
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The capacity of NRCS district chapter staff and volunteer was enhanced to implement the activities in the recovery program through staff training in leadership, organization development, resource mobilization, GESI, PMER following a comprehensive need's assessment. It was noted in KIIs at district level that now that the program has phased out, refresher training is urgently required as programming transitions to long-term development. Beyond skills capacity however, many of the key enablers to effectively implement activities at organisational level were not present. Delays attributable to inadequate NRCS policies, guidelines and procedures for recovery programming impacted capacity to effectively implement activities. This was particularly the case in relation to procurement and recruitment process, which according to district chapters should have been more decentralised.

Indicator 3.2.1 - # of NRCS district chapters have safer building and equipped with essential assets incl. IT and communication system	Baseline N/A	Endline 3	Target 3	Status Achieved
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This indicator measures the number of NRCS district chapters that have safer building and equipped with essential assets incl. IT and communication system. District and sub chapters and blood banks were supported in building construction support and with vehicles and IT communication systems. It was noted during discussions with District chapters that building and service contractors were accountable to HQ and that a more decentralised approach would have helped prevent delays because of enhanced monitoring.

4.2 Effectiveness

Having presented the findings related to the program outcomes, this section explores the extent to which these outcomes were effective in contributing to the higher-level objectives of the program. The section begins with general observations and then analyses the level of effectiveness for each of the objectives.

4.2.1 Integrated Approach

Overall, the program design was found to be effective in building household and community capacity to recover quickly, and access infrastructure and services to meet basic needs. This was based on a sound theory of change and in particular, an integrated approach, consisting of four programmatic elements. The combination of livelihood, WASH, safer shelter and health and the promotion of inclusiveness (with all streams supporting resilience and adaptive capacity), followed an integrated recovery approach (with all streams supporting resilience and adaptive capacity), rather than in parallel streams and/or amalgamation of single-sector interventions. Beneficiaries at the household level were supported in all streams rather than one or the other.

Effectiveness:

"The extent to which the development intervention's objectives were achieved, taking into account their relative importance."
OECD 2010:20

One strategy for achieving an integrated approach was employing social mobilisers who performed a generic role within their wards. This encouraged integration opportunities, for example bringing together awareness raising activities that cut across several sectors. Programmatic integration for example included:

- the provision of household latrines as part of shelter activities,
- training of masons, carpenters and WASH maintenance workers developed livelihood skills and income,
- sanitation training and disease prevention, and
- timely access to water supply for shelter construction, as well as agriculture, and the maintenance of hygiene and sanitation.
- cash-for-work programmes contributing to psychosocial well-being (World Bank, 2005)¹⁸

However, an exception to this was an integrated approach to agricultural production and marketing which was not observed, particularly in relation to PMCG activities.

From a resilience perspective, DRR should have been integrated as a cross-cutting activity in the *Recovery Framework*, enabling NRCS to focus not only on the very occasional hazards such as earthquake, but also on the annual events such as landslides, floods and droughts that impact heavily on vulnerable people. Only seven percent of households surveyed indicated that their community has a local disaster management plan and 76 percent of households do not have a preparedness plan. At the very least, consideration should have been made, as part of a sound transition and exit planning strategy to integrate RAGs into other permanent community structures such as CDMCs/LDRMCs.

4.2.2 Community Capacity and Collective Action

Another key area of program effectiveness relates to community capacity, in particular collective action. While there are no comparable data from either baseline or midterm reviews, findings demonstrate considerable effectiveness in collective engagement as a necessary element of absorptive capacity. Inclusive networks of community groups, such as water user committees, female community-health volunteers, social mobilisers, savings groups, recovery action groups and operational outreach clinics have helped strengthen social capital. Similarly, the program established social safety nets such as cash for work, savings and credit and introduced social protection schemes such as livestock insurance and the concept of 'Alo Palo', all of which were regarded as extremely effective in helping communities 'bounce back' after the earthquake.

However, the absence of collective initiatives, as had originally been planned was disappointing. This includes mainstreaming disaster risk reduction, the establishment of an effective psychosocial referral system and access to productive resources including credit, markets and linkages to input suppliers, suggesting self-organisation and capacity to adapt will be unlikely in the future.

4.2.3 Linking Relief, Rehabilitation and Development (LRRD)

Given that the *Utthan Program* was shaped in part by the RCM *Recovery Framework*, a framework which defines recovery as a '*return to what went before*', it is understandable, to a certain extent, that a more intentional focus on adaptive and transformative capacity was not mainstreamed into programming or institutionalised within the RCM. Whilst the EC regards recovery as an opportunity for '*more than a return to the status quo*', but on '*rebuilding structures and institutions in a better way*.' (EC, 1996), it was questioned by some key informants whether four years would be sufficient to linking short-term relief and recovery measures with longer term development programming or LRRD.¹⁹ However, the fact that the *Utthan Program*

¹⁸ The World Bank has found that providing survivors with income-earning opportunities tied to physical work often seems to help as much as grief counselling. Experience after the Gujarat earthquake suggests that livelihood inputs can also make a significant contribution to psychological recovery, especially for women.

¹⁹ In many instances it is recommended to allow at least 5-6 years (experience in many countries shows that it takes up to 12 years to fully recover). In terms of shelter reconstruction, this would allow more time for households to find alternative ways to pay for reconstruction, reduce pressure on material and labour costs and reduce need for loans.

had sought to conduct collective initiatives, but ran out of time, suggests that ‘*rebuilding structures and institutions in a better way*’ does take time, but also requires the mandate of a Framework to institutionalise such practices. Without such a mandate, the imperative for gender equity, collective initiatives, DRR and exit strategies will not exist.

4.2.4 Gender Equity

In terms of *gender equity and collective action*, it was found that despite gender training and other efforts of the program (such as quota for women in RAGs and water user committees [WUC]), the program did not lead to more gender-equitable decision-making. In fact, the balance of power remains in favour of men. As was observed in focus group discussions, women tended to be passive during interactions and as such, it is unlikely that females are any more effective now, compared to the past, in shaping decision-making in practice. FGD revealed that women remained as signatories. It was also revealed that most of the female WUC members are illiterate and are only able to act as do their signatories.

“We are facing difficulties keeping record of our income and expenditures as we can’t do the calculation. Though I am treasure of this WUC, I memorize everything and not sure for how long I will be able to do this. We also request outsiders to write our meeting minutes. This is a big problem in our WUC.” (FGD Nuwakot)

In order to transition from recovery to development, gender equity and collective action must go beyond quotas and address the inter-connected structural problems of unequal power, access to choices and resources. Otherwise what is at risk is simply a return to what went before.

4.2.5 Planning, Monitoring, Evaluation and Reporting

Monitoring Information System: As a mobile/web-based system for data collection, processing, information management and reporting, the Monitoring Information System (MIS) is considered by the evaluation team as a key success for the *Utthan Program*, and its replication within the ERO is testament to this. With the MIS, social mobilizers and district-level staff could update progress via a mobile app directly from the field. Information was updated in real time, and manual input work and transfer errors from older paper-based information systems was significantly reduced according to ARC staff. With data displayed on a common online dashboard, accessible to NRCS, District Chapters, IFRC and PNS’ transparency and better coordination between recovery partners has been promoted.



Management Information System - NRCS

Baseline Data: It was evident that without a Movement-wide standard planning, and reporting guidelines and tools as part of the *Recovery Framework*, many key deliverables were not met in the *Utthan Program*. This included conducting a program-level baseline survey, making it difficult in part to quantify achievement. A baseline survey was conducted for the livelihood component of the program, two of the four indicators were not measured and according to one key informant, there were methodological issues in calculating the other two (livelihood and survival thresholds). Whilst an ERO baseline was conducted, it was not disaggregated for program-level purposes. Nevertheless, some ERO level baseline data was used for program purposes, giving rise to credibility issues. Furthermore, when it was used it did not always correlate with life of program targets in the indicator tracking table (ITT). In two cases, indicator

baseline data was actually higher than the life of program targets. Whilst a movement-wide standard to PMER could have prevented many of these issues from arising, it was incumbent on program level PMER staff to ensure quality management in the program level baseline process and ITT reporting.

Monitoring: It was revealed that monitoring data for the purposes of evaluating community mobilisation outcomes had not been captured, and frequent changes in activities and targets were not reflected in the logframe or ITT. Nor was documentary evidence provided to the evaluation team substantiating any of the changes to proposed activities, some of which were very significant. It was also noted the narrative monitoring reports that were received by the evaluation team did not report against planned activities and targets, assess progress towards end of program outcomes or provide detailed variance explanations. Furthermore, given that half of the outcome indicators were measured qualitatively for the evaluation, it would have been reasonable to expect that outcome monitoring could have taken place throughout the program lifetime to enable ongoing learning, analysis and decision-making.

Risk: Ideally reporting on risk, identifying current controls and risk responses would have been a proper response to program management given the size of the investment.

It was noted by the evaluation team that these gaps in data management were surprising given the scope and functionality of the MIS.

Objective 1: level of effectiveness

Regarding the program's first objective, it was found that the program has been highly effective in building capacity to quickly recover by adopting improved resilience practices. Yet, despite being mandated in the original design to build adaptive and transformative capacity of households and communities, opportunities were not always maximised, especially in health and livelihoods.

The program was very effective in building household and community capacity to build safer shelter, evidenced by the number of homeowner's who started construction (96.9 percent) and those who completed a house that was fully compliant and conformed to all required standards and checklists (97.3 percent). Key to this was the training of masons and carpenters who in turn trained community members in BBS. This was seen as an effective low-cost and sustainable option that made communities feel stronger and more resilient from future disasters.

In terms of WASH, the program was highly effective in building community capacity through water user and sanitation committees to build and sustain (O&M system and trained village maintenance workers) water schemes and toilets.

With respect to health, the program had been highly effective in resourcing outreach clinics, and equipping community health volunteers, which proved instrumental in improving the capacity of health clinics and volunteers to help service marginalised groups. It was found however, that the program had been less effective delivering activities that would contribute to healthy behaviours, with important community-based behaviour change activities and psychosocial services that had originally been planned, either not been fully conducted, or not begun at all. This ultimately constrained communities and households practicing health behaviours, where negative trends were recorded.

Regarding livelihoods, a significant shift in capacity took place from early recovery to recovery for vulnerable earthquake-affected households and communities in asset building; livelihood diversification and the building of human/social capital. This was significant enough to increase those households surveyed above target livelihood and survival thresholds. However, the delayed roll out of collective initiatives (market-orientated production) and cancellation of other activities (off-farm vocational training) undermined the effectiveness of moving farmers for example from subsistence to commercial farming.

Objective 1:

Vulnerable earthquake-affected households and communities (with a focus on women, poor, traditionally marginalized groups and people with disability) increase the ability to self-organize and take actions to recover quicker and build back safer by adopting improved resilience practices.

Finally, across all districts and sectors, the program was very effective in increasing the capacity of the community to recover as a cohesive and inclusive society. Inputs such as the training of masons in safer building techniques, livelihoods and livestock training, awareness-raising related to health issues are all contributions to local capacity strengthening valued by community members. Similarly, the creation and support of water user committees, working through mother's health groups, applying the concept of 'Alo Palo' as a labour sharing approach, and the establishment/strengthening of savings group, are all examples of supporting existing structures and strengthening the social capital of the community. Finally, the program was effective in strengthening the connectedness of communities to social mobilisers and volunteers, line agencies and district level resource organisations, which is contributing to the recovery and more inclusive communities. The program was less effective in sustaining activities relating the RAGs with the potential to integrate them into other permanent community structures such as CDMCs/LDRMCs as part of DRR, regarded as a lost opportunity.

Objective 2: level of effectiveness

In general, the program was very effective in increasing household and community access to financial, human resource and material resources needed to build locally acceptable and safer shelter, WASH, livelihood and district chapter infrastructure.

The program was very effective in improving access to human resource support for shelter construction, including household access to trained masons/carpenters, mobile construction monitoring and supervision teams, Technical Support Centres and on-site monitoring applications. In addition, the program improved access to financial resources by providing a 300,000 rupees cash grant for over 3,000 households.

In terms of WASH, the program successfully improved access to water supply, while the focus on household toilet construction effectively contributed to VDCs being able to declare themselves ODF.

The program was also very effective in improving agricultural productivity through the repair of livelihood infrastructure as part of the CfW program. More land was available for production through repaired irrigation systems and by facilitating access to the VDCs and markets through the improvements of roads or foot trails.

With respect to NRCS building a skilled and diverse human resource base and providing material assets to implement recovery, resilience, DRR and readiness to respond to programming, there have been mixed results. In terms of soft activities in particular, investing in an enabling environment for staff and volunteers to learn and contribute was effective, however ensuring there is a return on this investment over the longer term at district chapter and HQ level has yet to be determined. Whilst delays attributable to inadequate NRCS policies, guidelines and procedures for recovery programming impacted efficiency, created confusion and impacted relationships and ultimately impacted program effectiveness, it has ultimately resulted in better systems and processes that should position NRCS to manage recovery programming better in the future.

4.3 Efficiency

A key issue at ERO level that impacted the efficiency of the *Utthan Program* that was identified by informants (NRCS staff at district and HQ, and ARC, SpRC and Canadian Red Cross) was difficulties associated with delivering against one of the visions presented within the *Recovery Framework*, namely that the recovery operation would be characterised as one demonstrating "joint responsibility, light coordination and swift decision making"²⁰. Several key informants remarked that the ERO steering committee (SC), which did not have representation of partners, had insufficient definition of its roles, levels of responsibilities, or the required turn-around time for operational decisions to be taken. For Partners National Societies (PNS), no agenda or

Objective 2:

Vulnerable earthquake-affected households and communities (with a focus on women, poor, traditionally marginalized groups and people with disability) increase access to safe and sustainable infrastructure and basic services to meet their household needs.

Efficiency:

"A measure of how economically resources and inputs (funds, expertise, time, etc.) are converted to results."

OECD 2010:21

²⁰ NRCS Recovery Framework, June 2015, p11

minutes for SC meetings led to a level of frustration as to why decisions were made and in turn communicated.

It was also remarked that centralised decision-making led to many bottle-necks, and slowed down operations at district level and within the community. Most informants indicated that decision-making authority, together with financial authority levels, needed to be delegated, both within the ERO at HQ level but particularly down to the district level. There was belief that the SC should have focused on high-level strategic decisions, delegating the managerial decisions as close as possible to where the decisions are implemented. The lack of devolution to the district level contributed to the district chapters feeling unable to provide the leadership that is required with some informants feeling that the inability to devolve responsibility was an expression of lack of trust.

The decision to manage the recovery operation using the existing policies, guidelines and procedures of the NRCS, without an examination as to whether they would meet the requirements of a USD100M recovery operation that needed to be swift and agile, was seen by all informants as a gap that should have been rectified earlier. This view was also shared by a number of informants from external agencies partnering with NRCS. In particular two NRCS processes were identified as contributing to delays in programming. The absence of a procurement plan, as well as authorisation levels at district level being too low, had implications for efficiency and cost effectiveness. Similarly, the NRCS recruitment process was regarded as being inadequate for recruiting large numbers of staff for the recovery operation. Recruitment was seen as centralised and did not empower senior managers at district level.

In several KII, there was a view that staffing levels were too high at chapter level, in some cases expanding ten-fold, and that it was difficult to justify the numbers of staff. These informants felt that it should have been possible to have amalgamated some roles and responsibilities in order to streamline numbers but they did not have the authority to take these decisions.

Staff also raised concern over the ratio between support costs and direct program costs. Over the life of the program, 62 percent of the US\$20.9m in funding went directly to beneficiaries in the community. Delays in year one resulted in only 14 percent of the US\$1.14m being allocated to the community and in year four, only 49 percent was spent directly on community activities, suggesting significant cost-inefficiencies during scale up and transition.

5. Sustainability and Gender/Social Inclusion

5.1 Sustainability of Activities

Sustainability has been adapted from the concept of connectedness – the idea that interventions should support longer-term goals, and eventually be managed without donor input. In complex emergencies where there is limited development activity, or in natural disasters where primary stakeholders are semi-permanently caught in the relief phase, sustainability may be difficult to achieve, which is why the focus in emergency and humanitarian affairs should be on connections between humanitarian action, recovery and development. In the recovery phase the focus on building local capacities, reinforce coping mechanisms and strengthening institutions should become an increasing priority for building long-term resilience.

In terms of building civil society, the program has strengthened savings groups and water users' committees or has established them where they do not exist. With respect to WASH for example, FGDs revealed that WUSCs have assumed responsibility of water supply scheme and water points, clear procedures and responsibilities are in place for major breakdown, operation and preventative maintenance is conducted by VMW thanks to collection of funds for O&M and financial/in-kind contributions to water schemes have contributed to greater ownership.

However, as already noted, the phasing out of RAGs, rather than integrating them into existing permanent community structures such as CDMCs/LDRMCs represents a missed opportunity in building community resilience in DRR. Furthermore, the delay in implementing PMCG has

Sustainability:
"The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time."

OECD 2010:36

meant that commercialisation of the agricultural sector and the development of market-orientated production through collective initiatives reduces significantly the likelihood of communities being able to sustainably increase production and income.

Support from local government however has been encouraging. Along with providing extension support, local government has proved to be a well-resourced partner for the *Utthan Program*. Through the registration of local community groups, local government has taken an active role in supporting activities. Eight-three (83) percent of the savings groups that were established/supported are still active and have been registered at the District Agriculture Development Office to improve access to support and financial assistance.

This evaluation raises important questions however concerning LRRD, and the extent to which there was intentionality in building local capacities, reinforce coping mechanisms and strengthening institutions. The findings suggest a mixed result.

At the local level, NRCS did a good job working through existing community-based structures. NRCS has a good track record ensuring ownership, such as through community contributions, and mobilising communities in solutions for sustainable livelihoods. However, it is unlikely that livelihoods will be sustained in the long term, particularly with regards to the commercialisation of agriculture, and management decisions made with respect to off-farm income generation. Additionally, the reinforcement of coping mechanisms through DRR, has been absent.

From a programming perspective, newly constructed shelters are generally more robust and better built than pre-disaster shelters. With regards to shelter access, this has created more resilient communities in case of future emergencies. Training for masons and carpenters has provided additional livelihood support. FGD respondents noted that many masons now had much better engineering-based skills and techniques that they can use to maintain existing houses and access further work. The training of maintenance workers for the repair and maintenance of water structures will enable the community to adequately maintain infrastructure associated with water schemes.

While transition plans have been developed for the WASH, shelter and livelihoods sectors, no mention appears in any of the documents on how transition will be achieved at community level and by when, beyond the need to hand over programming to either the CDD-Community Resilience/WASH Division of NRCS, in the case of livelihoods and WASH or the creation of a technical unit for shelter. While planning that relates to the mapping of human resources, assets and financial resources is important, greater emphasis should have been placed on how the transition phase of the recovery program could successfully transform into a community-based DRR programme that could provide the foundation for building long-term community resilience.

"Red Cross did not transition to local government. They said our program has phased out, our allocated time is finished and they went back to their own responsibilities. That was the main weakness of Red Cross." (Kil Nuwakot)

5.2 Gender and Social Inclusion

This section examines two cross-cutting themes, gender and inclusion and addressees the extent to which both themes have been addressed in the design and implementation.

The importance of equity informed the design of the *Utthan Program*. Because disadvantaged social groups suffered the largest damage and loss from the earthquake and due to status and position were found to have been disproportionately affected by the loss of livelihoods in the community, addressing the equity as part of the recovery has been a guiding principle in the design of the program.

As discussed in Section 3.2, in some FGDs, vulnerable people were omitted from beneficiary lists. The fact that VCA was not always conducted comprehensively as well as preference for a

GESI:

"How did the program ensure gender and social inclusion?"

Evaluation Terms of Reference

more blanket approach may have contributed to this. Although the GoN defined beneficiary selection criteria for shelter support, in only four percent of cases were female-headed households recipients of shelter support and seven percent had at least one household member with a disability, according to Red Cross Shelter database records. Only 7 cases included child-headed households.

Greater progress was made in terms of representation in decision-making forums, such as RAGs where 14 of the 37 RAGs had one disabled group member that was in a decision-making role while 20 groups had between one to five Dalit members in decision making roles. NRCS was also intentional in the construction of 51 disable-friendly toilets throughout the life of the program. Similarly, it noted that CfW (and cash grants) may not be suitable for marginalised people such as people with a disability, although it was noted in KIs that efforts were made to find appropriate CfW roles for disabled people. Naturally, savings groups were inclusive, representing women from all disadvantaged groups, as well as single women and disabled women.

Women were among the most vulnerable of those affected by the earthquake.²¹ With high levels of labour migration, around a quarter of the population are represented by women headed households who are at increased risk of gender based violence and of falling into negative coping mechanisms.²² The post-disaster needs assessment points out that women face gender specific challenges in limited access to economic resources, lack of livelihoods, narrow asset base, and high workloads that mean it will take women longer to recover. Women, however, also have the ability to drive resilience building in their communities. As such, gender was incorporated into the program, recognising that different vulnerabilities and power dynamics can prevent access to resources, especially in a post-disaster context.

Encouragingly, gender was fully integrated into staffing and program design, rather than being viewed as an add-on. In terms of staff hiring, 54 percent of staff, including social mobilisers and volunteers were female, 46 percent male, 39 percent Brahmin/Chhetri, 58 percent Janajati and 3 percent Dalit. In practice, women were in general represented in local leadership, with all user groups and decision-making bodies requiring women's participation, including savings groups, RAGs and water user committees. From a total of 52 RAGs that were established and functional in six VDCs across all three districts, 71 percent had at least one or two females in a decision-making role. Even still, this was below the 90 percent target set. Additionally, it was observed in focus group discussions that women tended to be passive during interactions and as such it remains unclear to what extent females are shaping decision-making in practice.

Because women also have challenges accessing finance to engage in income generating activities because of the lack of collateral and documentation, the promotion of savings groups assisted their access to credit as well as social interaction. Vocational training would have furthered access to skills and business opportunities, however as discussed, this was not pursued.

The opportunity for women to participate in shelter construction training was mixed within the three districts. Where it was carried out it was very successful and the women felt they could and should be a part of that to a greater extent. Interestingly the men in those groups, including masons and carpenters all agreed. However, while advertising the call for mason training, advertisements specified that only experienced people in construction should apply. This was not very encouraging for women as most women had not worked as masons in the past. Ideally, job advertisements should not discourage people from applying or imply that only certain applicants will be considered. In order to intentionally encourage female participation, it is necessary to encourage as many suitable people as possible to apply and advertise in a range of different ways to reach a greater diversity of applicants.

²¹ The 2014 Gender Inequality Index (GII) places Nepal 98th (with value 0.479) on the index.

²² UN Women estimates based on 2011 Census data



Water Point with Pictograms - NDRI

In most communities, women and children previously had to make arduous, and at times, dangerous trips to retrieve water. This would easily take up to 3.5 hours in some villages. With the construction of new water schemes, water is now available at or very close to peoples' houses. Handwashing stations have been constructed close to toilet facilities. These typically have two or even three different height levels for taps, designed to suit adults, children and people with disabilities. Most water points also displayed a good quality ceramic tile with symbols and pictograms to promote good hygiene practices (safe water handling, hand washing).

Despite these successes, because the program was not predicated on successfully linking relief, rehabilitation and development as part of its humanitarian response, it did not intentionally seek

to address the long-term and inter-connected structural problems of unequal power, access to choices and resources, or the marginalisation of vulnerable groups.

6. Community Participation, Relationship Management and Satisfaction

6.1 Community Participation and Empowerment

Community Participation and Empowerment:

"What approaches of community participation and empowerment exist?"

Evaluation Terms of Reference

Community participation and empowerment was at the heart of *Recovery Framework* and NRCS utilised a range of successful community-based programmes that supported resilience and individual sectors. A combined toolkit of community-based tools and approaches were developed for the *Utthan Program* and the ERO, combining VCA tools with CBHFA, CBDRR, PASSA and PHAST, to provide a comprehensive means to engage at the community level and undertake a detailed assessment of the needs, capacities and gaps in provision. The planned steps and processes in support of community participation and empowerment included a participatory assessment process, beneficiary targeting and registration, community mobilisation and awareness raising – based on priorities, seasonality, and program needs.

As already highlighted concerns were raised in some FGDs that vulnerable people were in some cases omitted from beneficiary lists and that VCA was not always conducted as comprehensively as it could have been. The fact that CBHFA, PHAST, PASSA and CBDRR were not integrated into community programming to any great extent however, suggests that in practice community participation and empowerment could have been a greater intentional focus.

In the case of CfW however, livelihood beneficiaries appreciated the opportunity to discuss and prioritize the schemes they had proposed. They believed that recording all financial transaction and presenting them to Red Cross minimized the misuse of money by elites or other influential people, as had been the case during program selection and budget spending of the government's annual VDC grant.

Although there were limitations associated with the cash-grant cap, the home-owner driven reconstruction *approach* implemented jointly by Build Change and NRCS was viewed as a significant success. The approach ensured that homeowners themselves chose the design of their house (given the funding limitations), from number and layout of rooms to choosing preferred building materials. In response to demand gathered through the homeowner awareness activities, Technical Support Centres (TSCs) were established in each of the working

VDCs. A major success of the TSCs was to support homeowners in terms of design selection, adaptation and approval from the DUDBC. Since the TSCs were established, 2830 homeowners accessed the TSCs and 2819 received final drawings enabling them to commence construction.

The concept of 'Alo Palo' was a significant community participation approach. This was a labour sharing concept where communities would pool their labour together and help with the construction of each house. It worked by each homeowner donating the same number of days worked on their house to other houses in the group free of cost. This reduced the labour cost to homeowners, meaning that they could pass on these savings to afford other options when rebuilding. Some homeowners chose to use the additional savings to build a bigger house.



"Alo Palo" - Community Participation - NRCS

Instead of PHAST, CLTS and school-led total sanitation (SLTS) was conducted by trained social mobilisers who worked with communities and schools to eliminate open defecation. Adults and children conducted their own appraisal and analysis of open defecation and take their own action to become ODF throughout all VDCs. In FGDs it was reported that the application of CLTS successfully triggered the community's desire for collective change, and propelled them into action, encouraging innovation, mutual support and leading to a greater sense of ownership and sustainability.

6.2 Coordination and Relationship Management

Feedback from the districts and at central levels show that NRCS has largely maintained a high level of coordination with government line agencies, participating in a whole range of coordination meetings. At the district level, line agencies (such as DUDBC, DoH, NRA and DLO) frequently identified the NRCS as a valued key partner and commended it for its efforts to support and coordinate. However, apart from partnering with Build Change as the lead agency assisting homeowners to rebuild their homes, there was no other collaboration with external organisations. Pursuing such opportunities could have helped augment Red Cross capacity and provide opportunities for learning. However, in discussions with key informants with NRCS at HQ and district chapter level, there is a general reluctance to work with external partners.

Within the Movement, efforts were made to ensure close collaboration and coordination throughout the operation. Whilst sectoral technical working groups (which brought together staff from NRCS and partners) were reported to have become infrequent and in some cases ceased to meet at ERO level, it was reported by some KIIs that at the *Utthan Program* level the integrated coordination of technical working groups provided opportunities for promoting collaboration and coordination. Similar sentiments were also raised with respect to the working group that brings together PMER, Information Management, GESI, Community Engagement and Accountability (CEA) and Communications.

The relationship between partners and NRCS proved to be a sensitive and complex issue, as expressed by the different views that were shared during the evaluation process. Interviews tended to indicate that the concept of partnership, joint responsibility and co-management articulated in the *Recovery Framework* did not occur as anticipated, resulting in a deterioration in the levels of mutual trust between NRCS and partners. Interviews often seemed to reveal a situation of mutual frustration that was aired by all sides. For partners, there was a sense of internalisation, regulation and control on the side of NRCS, with partners feeling increasingly on the outside of decision-making, whilst for NRCS the *Recovery Framework* and One Plan approach was viewed as having been primarily developed by partners, with little active involvement from their side.

Coordination and Relationship Management:

"How well did ARC and NRCS coordinate with each other and with other program stakeholders?"

Evaluation Terms of Reference

6.3 Satisfaction

Satisfaction:

"How satisfied were beneficiaries and stakeholders with the program"

Evaluation Terms of Reference

Apart from the main issues raised by beneficiaries concerning program implementation and outcome, which have been highlighted throughout the evaluation, one of the main ways of assessing whether satisfaction has been integrated into the assessment, design and monitoring processes relates to CEA.

One element of community engagement and accountability that was successfully implemented was in terms of communities knowing their rights and entitlements, having access to information and participating in decisions that affected them. FGD interviews across all districts revealed that beneficiaries were in general aware of their rights entitled to them as an earthquake victim. Communities were provided with relevant program information and were kept informed of plans and activities, whilst social mobilisers provided communities with relevant information in a timely manner. Interviews indicated they were informed about beneficiary selection criteria, selection processes and beneficiary entitlement.

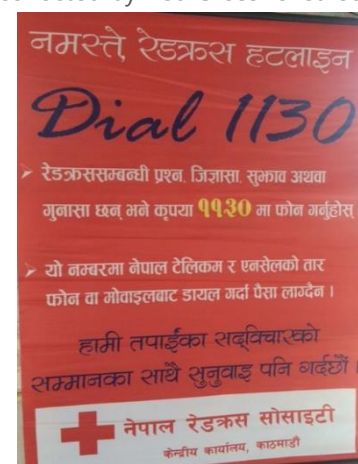
Whilst Red Cross principles and *Recovery Framework* prioritise targeting of the most vulnerable and inclusion (along with community-based programming, in particular VCA), in some FGDs, however, a small number of participants articulated a measure of confusion, disappointment or resentment related to vulnerable people being omitted from beneficiary lists or engaged to undertake detailed assessment of the needs, capacities and gaps in provision. It is understood that NRCS was initially reluctant to target the most vulnerable people within a community in some instances, preferring to opt for a blanket approach, but this reportedly changed over time and the targeted approach was approved of by the vast majority of informants.

"We knew about the suggestion box and hotline but in general we provided feedback to the partner. Because partner NGO staff visited quite frequently it was easier to speak face-to-face." (Earthquake-affected Focus Group)

"In providing mechanisms to listen and respond to those voices, we also need to put in place processes so that information from communities is not just listened to, but acted on."

ERO, CEA Standard Operating Procedures

The second element of CEA that was mainstreamed into the program included communities having access to safe and responsive mechanisms to handle complaints. The program demonstrated its commitment to providing the community with the means necessary to enable them to provide feedback about activities in a safe manner. This included providing various confidential feedback channels including suggestion boxes, community meetings, the 1130 national phone hotline, kiosks and Facebook pages. Data collected by Red Cross revealed that the feedback mechanism was well utilised. The hotline received a total of 3,573 calls over the three years of implementation (an average of 102 calls per month). Despite the toll-free number and feedback box being well advertised in the community and NRCS providing staff resources to monitor their usage, discussions with community groups agreed that the majority of community members were not aware of them or used them²³. According to survey responses 12 percent of households used the hotline, whilst 0.3 percent used suggestion boxes. When the hotline was used it, it was predominantly used by men rather than women (76 percent of callers were male). The majority of those interviewed preferred to use community meetings, community help desks and face-to-face discussions (86 percent surveyed).



Red Cross Hotline - NRCS

No data however was made available for the evaluation outlining how many community members used the feedback box and toll-free number,

²³ FGDs in some districts indicated that some communities had had previous experience of using suggestions boxes provided by other organisations and failing to get adequate response, meaning that they were not inclined to use them again.

whether feedback was resolved satisfactorily, nor were any time-related performance benchmarks provided.

Detracting from the use of hotlines and feedback boxes, included community access to mobile phones, confusion dialling long telephone numbers and options once the line goes through, and levels of literacy. In many instances it was highlighted in interviews that there was a preference not to provide feedback at all, over fear that benefits would be taken away. Only 25 percent of households surveyed indicated that if they had a question, complaint or any other feedback about the program, that they would communicate this with the Red Cross.

In many ways the findings regarding the preferred source of feedback, whilst unexpected for

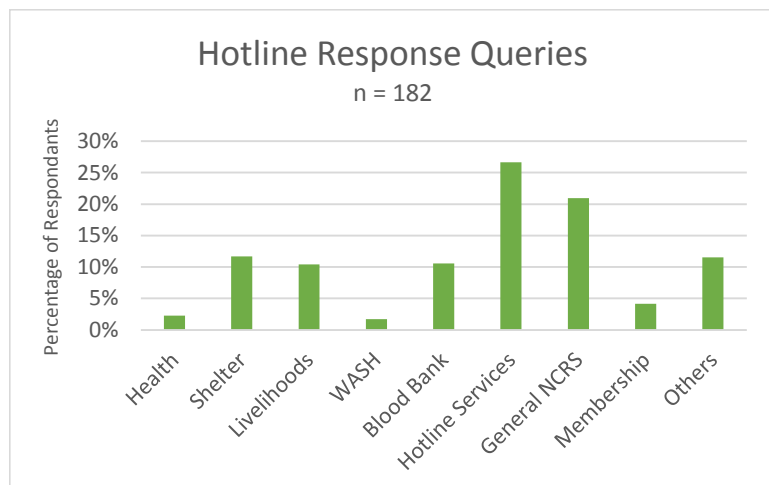


Figure 11 - Hotline Response Queries

Red Cross given their investment in resourcing the toll-free number in particular, are encouraging, indicating that the ongoing presence of NRCS in the community was serving as an opportunity to receive feedback. A lack of presence and monitoring in the community could have

resulted in different outcomes. Red Cross is to be commended for providing alternative channels of communication for feedback, with many examples of high levels of satisfaction.

However, if data is going to be collected, it must be analysed and decisions made about how best to allocate resources, particularly if staff time is being allocated to one or two main channels that are not being optimised.

"I called the NRCS Hotline number, 1130. I made a complaint that a government engineer took NPR.10,000/- for providing technical assistance in my shelter construction. My complaint was forwarded to the concerned municipality of my district. After some days I got a call from the municipality and my money was returned. The engineer was not supposed to take the money from me as the technical assistance should have been free of cost." (FGD)



SECTION C | LEARNING

7. Learning, Replication and Recommendations

What worked, why? What can be replicated? What needs to be improved? Beyond the evaluation's accountability function lies the realm of learning. Arguably, it is the hallmark of any professional organisation to learn from both failure and from success. Correspondingly, it is the duty of the evaluator to highlight aspects that can be learned, and applied in future programming. Encouragingly, the evaluation's terms of reference highlight this aspect of evidence-based learning.

Much of the Utthan program went well, while other aspects need further consideration. As the summary of lessons overleaf illustrates, there is much to be learnt. For illustrative purposes, lessons are arranged along the lines of key observations (points A-D), each of which is explained and supplemented with further findings from the program. Recommendations on strategic and technical aspects as well as on monitoring and evaluation are provided in relation to these, along with opportunities for replicating innovative practices.

Learning, Replication and Recommendations:

"Are there important lessons that can be learned from this program?"

Evaluation Terms of Reference

Summary: evidence-based learning

A To effectively reinforce community resilience and adaptive capacity, integrated multi-sectoral interventions that engage the community are required that bring tangible benefits to the broader community

Effective approaches recognize and build on existing capacities, address vulnerabilities, provide differentiated support to households and engage communities.

C The homeowner-driven reconstruction approach enables communities and homeowners to build back safer

Homeowners will ultimately choose to build a safe, earthquake resistant house that is compliant with all guidelines and regulations, if the technical support provided is accurate, comprehensive and allows the homeowner to make fully informed decisions.

B To effectively implement recovery programming, policies, procedures and governance structures must be fit for purpose

The use of existing policies, guidelines and governance structures for a large-scale recovery operation can negatively impact program performance.

D Building resilience capacity to absorb and adapt to stressors rests on building human/social capital, asset building, diversification of livelihoods and DRR

Effective approaches build human/social capital, asset bases, diversify livelihoods and reduce risk to disaster to help absorb and cope with the impact of disasters and adapt to multiple, long term and future risks.

The Utthan Program....

Point A

- *Integrated* sectoral interventions as part of the "4 + 1" approach into a holistic approach, rather than amalgamating them (+)
- *Utilised* a range of community-based tools and approaches to ensure *community participation and empowerment* in assessment, design and implementation (+)
- *Missed* opportunities for combining technical and local expertise through external collaboration (-)
- *Did not sufficiently integrate* psychosocial support or disaster risk reduction and engage with local structures (CDMCs, LDRMCs) (-)

Point B

- *Promoted* the integrated coordination of technical working groups as well as PMER, Information Management, GESI, CEA and Communications (+)
- *Used existing* processes in procurement and recruitment that led to delays and cost-inefficiencies (-)
- *Centralised* decision-making leading to many bottle-necks and slowed down operations at district level and within communities
- *Delayed* the roll out of collective initiatives (market-orientated production) (-)
- *Phased out* of health activities early & cancelled other behaviour change activities (-)

Point C

- *Partnered* with Build Change Nepal to deliver technical expertise, technology and local capacity and solutions in housing reconstruction (+)
- *Established* technical support centres to provide a 'one stop shop', for technical reconstruction information, information from the NRA, and free of cost house design package preparation (+)
- *Introduced* a centrally managed, cloud-based library catalogue of house designs for homeowners (+)
- *Incorporated* the use of a mobile applications (Fulcrum) to provide homeowners the information they needed to rebuild and retrofit houses safely (+)
- *Worked* with contracted master masons for whom a small incentive is released on the basis of completed, fully compliant houses (+)
- *Provided* on-site construction coaching for homeowners (+)
- *Introduced* the concept of Alo Palo as a labour sharing concept (+)

Point D

- *Strengthened* absorptive capacity by building social capital, including WUSCs, FCHVs, RAGs, SM, savings groups and Alo Palo (+)
- *Built* human capital by increasing community skills and knowledge on improved livestock and agricultural production (+)
- *Built* assets by constructing communal infrastructure through cash for work and social protection schemes such as livestock insurance (+)
- *Diversified* livelihoods through crop and livestock production (+)
- *Missed* opportunities to strengthen adaptive capacities of communities through collective initiatives, including the mainstreaming of DRR, the establishment of a psychosocial referral system and access to productive resources including credit, markets and linkages to input suppliers (-)

Strategic recommendations for community resilience

- **Integration through collaboration** - On of the biggest challenges in recovery and resilience programming is that it spans across multiple 'sectors'. The program targeted the same groups through integrated sectoral interventions as part of a holistic approach, but did not implement through external collaboration, apart from with Build Change Nepal.
- **Fit for purpose** - Movement partners (IFRC & PNS) should support NRCS to adapt existing policies and procedures when shifting from development to recovery and enable scale-up and scale-down - analysing different models and tools that can be used.
- **Absorptive and adaptive capacity: mind the gaps, address both** - To effectively reinforce resilience building in recovery programming, both absorptive and adaptive capacity must be strengthened and enhanced over time.

Technical recommendations for community resilience

- Collective initiatives (market-orientated production and market access) should be integrated into ongoing livelihood development programming at district chapter level
- Provide complimentary in-kind materials for housing reconstruction as alternatives to direct financial support to circumvent the government-imposed cash grant cap
- NRCS should investigate the government loan program in order to reduce the burden of debt faced by homeowners who are forced to spend additional money for adequate housing
- An integrated approach to resilience building in the context of emergencies or disasters should seek to integrate DRR and psychosocial services into planning
- Greater monitoring of outcomes and coordinating efforts between WASH-CCs and the NRCS health development program along with a review of sanitation promotion campaigns is required to improve health behaviour and disease prevention. It is recommended that a mixture of directive or participatory approaches or a combination of the two are used, such as behaviour change communication, social marketing, PHAST, child-to-child, and peer education.

Program-related recommendations for monitoring and evaluation

- Future programming should incorporate key sustainability indicators into existing monitoring systems to gauge progress towards key benchmarks and formulating effective exit strategies
- Risk management needs to include the identification of current controls, risk responses and ongoing reporting
- Regular outcome level data should be collected to ensure opportunities for knowledge management and learning are maximised, as well as to measure progress and inform decision-making and to account for seasonal variability
- Changes to planned activities and targets must be accompanied by documentary evidence and reported against
- Narrative monitoring reports must report against planned activities and targets, assess progress towards end of program outcomes and provide detailed variance explanations
- Implementation of movement-wide PMER should be mandated for all large-scale programming

A. To effectively reinforce community resilience and adaptive capacity, integrated multi-sectoral interventions that engage the community are required that bring tangible benefits to the broader community

The program directly benefitted approximately 15,000 villagers across 3,000 of the most vulnerable households with an integrated package of shelter, WASH and livelihoods support, rather than being supported in either shelter or WASH or livelihoods in parallel streams. The community mobilisation component was the foundation of the whole package, and became the glue that bound the program elements together, undertaken by social mobilisers at the district chapter level. Activities were predicated on the prior creation of a common toolkit, building on existing programme tools such as VCA, CBDRR, CBHFA, PASSA and PHAST. This allowed a multi-sectoral participatory assessment of needs, capacities and gaps at the community level, leading to the development of an integrated plan.

However, as part of a holistic approach, the program missed opportunities to integrate DRR and psychosocial services into activities. The Recovery Framework suggests that DRR, should be a crosscutting activity underpinning the 4+1 program, enabling RC to focus not only on the very occasional hazards such as earthquakes, but also on the annual events such as landslides, floods and droughts that impact heavily on vulnerable people. DRR should be at the heart of transition and exit planning.

An integrated approach to psychosocial support, including access to community-based services and an effective referral system should be mainstreamed as an effective humanitarian response into future Red Cross health development programming – especially for children. The World Bank has found that providing survivors with income-earning opportunities tied to physical work often seems to help as much as grief counselling. Experience after the Gujarat earthquake suggests that livelihood inputs can also make a significant contribution to psychological recovery, especially for women.

Arguably the biggest challenge to community resilience programs concerns structures: while those programs necessitate a holistic approach that spans over many traditional 'sectors', few organisations possess the breadth and depth of required multi-sectoral expertise. A solution to this dilemma is the formation of consortia. The Utthan program however missed opportunities to develop consortium arrangements that combined technical expertise in various sectors. Apart from partnering with Build Change as the lead agency assisting homeowners to rebuild their homes, which proved very successful, there was no other collaboration with external organisations, despite the potential to augment Red Cross capacity and provide opportunities for learning.

Without a doubt, full integration of expertise in a consortium is ambitious and challenging. But given the demands for a holistic approach to community resilience programs, this is one of the evaluation's most critical lessons: more work is necessary to truly integrate multi-sectoral expertise - both conceptually and in practice.

Recommendations

- *Given the demands for a holistic integrated approach to community resilience programs, future programming needs to integrate multi-sectoral expertise - both conceptually and in practice.*
- *An integrated approach to resilience building in the context of emergencies or disasters should seek to integrate DRR and psychosocial services into planning*

Opportunities for Replication

- *Evidence from other earthquake settings suggest that the integration and monitoring of community cohesion, improved livelihoods and mental health should be mainstreamed into the humanitarian response and replicated in other settings where Red Cross operates.*

- *In order to replicate the integration of DRR in other settings where Red Cross operates local chapters should seek to engage with the local structures (CDMCs, LDRMCs in the case of Nepal) for sustainability of local institutions²⁴.*

B. To effectively implement recovery programming, policies, procedures, and governance structures must be fit for purpose

Creating a new operational and governance structure for the duration of the earthquake recovery programme, and policies and procedures fit for purpose, is critical for timely and effective decision making and to maintain consistency and quality in project implementation.

One of the challenges faced by the Utthan program, within the context of the broader Nepal ERO, was the inability to deliver against one of the visions presented within the Recovery Framework, namely that the recovery operation would be characterised as one demonstrating “joint responsibility, light coordination (and) swift decision making”²⁵.

Centralised decision-making led to many bottle-necks, and slowed down operations at district level and within the community. Most informants indicated that decision-making authority, together with financial authority levels, needed to be delegated, both within the ERO at HQ level but particularly down to the district level. There was belief that the steering committee should have focused on high-level strategic decisions, delegating the managerial decisions as close as possible to where the decisions are implemented.

The decision to manage the recovery operation using the existing policies, guidelines and procedures of the NRCS, for a USD100m recovery operation that needed to be swift and agile, was seen by all informants as a gap that should have been rectified earlier. The use of existing policies and processes in procurement and recruitment for example contributed significantly to implementation delays and cost-inefficiencies.

Concerns raised by participating national societies regarding the decision-making process to phase out early from health programming and the cancellation of behaviour change activities impacted the extent to which improved resilience transcended into improved health and hygiene behaviour. Similarly, the delayed roll out of collective initiatives (market-orientated production) and cancellation of other activities (off-farm vocational training) undermined the effectiveness of moving farmers from subsistence to commercial farming. Delays in year one resulted in only 14 percent of the US\$1.14m being allocated to the community and in year four, only 49 percent was spent directly on community activities, suggesting significant cost-inefficiencies during scale up and transition.

Recommendations

- *Given the needs to be accountable to donors, communities and movement partners, there is a need for IFRC and PNS to support NRCS to adapt existing policies when shifting from response to recovery and enable scale-up and scale-down, by analysing different models and tools that can be used.*

C. The homeowner-driven reconstruction approach enables communities and homeowners to build back safer

The Utthan program was innovative in Nepal due to both the technical support provided, and the scale of the reconstruction effort. The technical support provided by Build Change allowed the homeowner to stay fully informed and make key decisions with the correct knowledge. The collaboration with Build Change was an example of a successful external partnership that drew upon technical expertise, engineering innovations and technology, as well as local capacity and solutions for housing reconstruction. The success of the homeowner driven methodology can be seen in both the number of homeowner’s who have started construction and those

²⁴ The 2017 Mid Term Review of the Nepal ERO found that in Kavre a link had been forged with local structures such as CDMCs and LDRMCs, an important sustainability strategy, both for the communities and for the NRCS chapter.

²⁵ NRCS Recovery Framework, June 2015, p11

who have completed a house that is fully compliant and conforms to all required standards and checklists (94 percent).

In collaboration with Build Change, the program successfully established technical support centres to provide a 'one stop shop', for technical reconstruction information, information from the NRA, and free of cost house design package preparation. The program incorporated the use of a mobile applications (Fulcrum) to provide homeowners the information they needed to rebuild and retrofit houses safely and introduced a centrally managed, cloud-based library catalogue of house designs for homeowners

Master Masons improved the quality of construction, and ensured that safe, and correct methods were followed at all times during housing construction. By providing a select number of trained and approved masons with an additional financial incentive that was paid out on the basis of a fully compliant house, overall housing compliance rates were enhanced.

Finally, the program introduced the concept of 'Alo Palo'. This was a labour sharing concept where communities pooled their labour together and helped with the construction of each other's house. It worked by each homeowner having to donate the same number of days worked on their house to other houses in the group free of cost. This reduced the labour cost to homeowners, meaning that they could pass on these savings gained from Alo Palo to afford other options when rebuilding. Some homeowners chose to use the additional savings to build a bigger house.

Recommendations

- *In order to advance housing construction, the provision of complimentary in-kind materials for toilet construction, low-tech rain water harvesting from rooftops or solar lighting should be considered as alternatives to direct financial support, to supplement the government-imposed cash grant cap*
- *In order to reduce the burden of debt because of the government-imposed cap of housing reconstruction, it is recommended that NRCS investigate the government loan program and, if feasible, provide training to local NRCS volunteers and staff at the district level on options for beneficiaries to transfer from high interest to low interest loans*

Opportunities for Replication

- *Because the homeowner-driven reconstruction approach enables communities and homeowners to build back safer, providing a bundle of innovations as a package, that incorporate technical expertise, technological innovations, as well as local capacity and local solutions should be replicated in other settings where people are empowered to be at the centre of recovery and reconstruction efforts. In settings, such as Japan, a wealthy nation, where the majority of residents are not used to being directly involved with the construction of their houses, but instead pay for the finished product, homeowner-driven reconstruction would not succeed (Maly, 2017). In Gujarat, Pakistan and Indonesia by contrast, key requirements enabling the homeowner driven reconstruction approach are present. Along with community-based housing recovery being supported from the national government, housing built for disaster recovery targets extremely poor and vulnerable residents from informal settlements, who are used to building their own shelters from whatever materials and on whatever land they can access.*

D. Social capital is a necessary precondition for increasing the absorptive and adaptive capacity of communities and households after a shock

Resilience to disasters cannot be built by one program or sector alone, but requires a range of multi-sectoral programs that together increase the capacity of people to address short term shocks as well as long term stresses and risks.

The Utthan program made a strong contribution to the capacity of people to absorb the negative impacts of disaster on their livelihoods and 'bounce back' after the earthquake. It did

so by building the social capital of community groups, such as water user and sanitation committees, female community-health volunteers, social mobilisers, savings groups, recovery action groups and the operationalisation outreach health clinics. Similarly, as part of asset building, the program established social safety nets such as cash for work, which assisted in building communal infrastructure, savings and credit and introduced social protection schemes such as livestock insurance and the concept of 'Alo Palo', all of which were regarded as extremely effective in helping communities 'bounce back' after the earthquake. The program also assisted in building human capital and diversified livelihoods by increasing community skills and knowledge in the production of livestock and crops.

However, the absence of collective initiatives, as had originally been planned was disappointing. This includes mainstreaming disaster risk reduction, the establishment of an effective psychosocial referral system and access to productive resources including credit, markets and linkages to input suppliers, suggesting self-organisation and capacity to adapt will be unlikely in the future.

Recommendations

- To effectively reinforce resilience building in recovery programming, both absorptive and adaptive capacity must be strengthened and enhanced over time*
- Collective initiatives (market-orientated production and market access) should be integrated into ongoing livelihood development programming at district chapter level*

Opportunities for Replication

- Whilst the program sought to access labour pools through community reconstruction groups based on the 'Alo-Palo' system, Alo Palo itself is not new. For generations, villagers in Nepal have taken turns helping each other with everything from harvesting crops to preparing for weddings to building houses. For development practitioners, replicating lessons from local adaptive responses that have existed for decades, if not centuries, can be upscaled to contemporary issues, such as using Alo Palo for rebuilding homes, for both recovery and development programming.*

8. Conclusion

The *Nepal Earthquake Recovery Program – Utthan* begun in October 2015, with funding from American Red Cross, Spanish Red Cross and the Canadian Red Cross. The program set out to facilitate the sustainable recovery of vulnerable earthquake-affected households in 19 villages in Nuwakot, Rasuwa Makwanpur Districts. Adopting a community-driven integrated approach, the program combined shelter, water, sanitation and hygiene (WASH), livelihoods, health and organizational development interventions in a holistic manner to build safer and more resilient communities.

At the program's conclusion its effectiveness on increasing access to safe and sustainable infrastructure and basic services for vulnerable earthquake-affected households has been considerable. The program was highly effective in helping vulnerable earthquake-affected households' access financial, human resource and materials to completely construct 2,885 houses, including access to cash grants, in-kind materials, trained masons, mobile construction monitoring teams, technical support centres, and on-site monitoring applications. In terms of WASH, the program successfully improved access to water supply, while the focus on household toilet construction effectively contributed to VDCs being able to declare themselves 100 percent ODF. The program was also very effective in improving the productivity of agricultural production through the repair of livelihood infrastructure as part of the CfW program. More land was available for production through repaired irrigation systems and by facilitating access to the VDCs and markets through the improvements of roads or foot trails. However, it was observed overall that funding was disproportionately skewed towards four (shelter-supported) of the 19 VDCs.

In terms of the program's effectiveness in increasing the ability of vulnerable earthquake-affected households to self-organize and take actions to recover quicker by adopting improved resilience practices, the evidence is mixed. The program was very effective in building household and community capacity to build safer shelter, evidenced by the number of homeowner's who started construction (96.9 percent) and those who completed a house that was fully compliant and conformed to all required standards and checklists (97.3 percent). In terms of WASH, the program was highly effective in building community capacity through water user and sanitation committees to build and sustain (O&M system and trained village maintenance workers) water schemes and toilets. However, negative trends were associated with the promotion of hygiene behaviour.

With respect to health, the program has been highly effective in resourcing outreach clinics, and equipping community health volunteers, which proved instrumental in improving the capacity of health clinics and volunteers to help service marginalised groups. It was found however, that the program had been less effective delivering activities that would contribute to healthy behaviours, with important community-based behaviour change activities and psychosocial services that had originally been planned, either not been fully conducted, or not begun at all. This ultimately constrained communities and households practicing health behaviours.

In terms of livelihoods, a significant shift in capacity took place from early recovery to recovery for vulnerable earthquake-affected households and communities in asset building; livelihood diversification and the building of human/social capital. This was significant enough to increase those households surveyed above target livelihood and survival thresholds, despite modest rises in incomes. However, the delayed roll out of collective initiatives (market-orientated production) and cancellation of other activities (off-farm vocational training) undermined the effectiveness of moving farmers from subsistence to commercial farming.

Across all districts and sectors, the program was very effective in increasing the capacity of the community to recover as a cohesive and inclusive society. Construction of more robust shelters, extensive training of households and communities, strengthening civil society and the connectedness of communities is contributing to the recovery and more inclusive communities. However, it is unlikely that the adaptive and transformative capacities of

communities will be achieved especially with regards to livelihoods. Whilst the program was successful in asset building in the early recovery phase, along with diversification of livelihoods and building of human capital in the recovery phase, it was not evident that a shift from recovery to development was achieved. Without a sustainable increase in income and savings (through collective production, market-orientated production, employment through vocational training), and disaster risk reduction, it is less likely that adaptive and transformative capacities can be supported.

As NRCS navigates the LRRD continuum, the experience from the *Nepal Earthquake Recovery Program-Utthan* is providing valuable lessons and recommendations as to how community-based resilience programming can be further enhanced in the future. The integration of DRR and market access, government loan programs and community-based transition strategies as well as focusing on core accountability functions, including performance monitoring are elements that may help reinforce and sustain resilience even further into the future.

APPENDIX A – SAMPLING, DATA FILES, TOOLS AND PLANS

Inception Report



Final Inception
Report_Utthan Eval

Terms of Reference



Utthan Final
Evaluation ToR.pdf

Survey Design



Survey Design.docx

Evaluation Scope and Objectives



Evaluation Scope
and Objectives.docx

Indicator Mapping



Mapping of
indicators with tool

Excluded Indicators



Excluded
Indicators.docx

Data Analysis Plan



Data Analysis
Plan.docx

Data Collection Plan



OVERALL
QUALITATIVE PLAN -

Training



Final Qualitative
Training_7 to 8 June



HH Survey Training
Schedule.docx

Household Survey



Household survey
(FINAL).docx

Technical Inspection Checklist



Shelter technical
inspection checklist.inspection checklist.



Irrigation scheme



Health
Inspection.docx



Foot Trail
inspection.docx



Irrigation scheme
inspection checklist.atrine structure obs



Inspection_WASH_L

Indicator Tables



Indicator Tables -
Final.xlsx

SPSS Data Set



Syntax3.sps

APPENDIX B – ORGANISATIONS AND INDIVIDUALS INTERVIEWED

Kathmandu

Interview Date	Key Informant	Position	Organisation
9 th June	Tara Gurung	PMER Coordinator	NRCS
9 th June	Deepak Dawadi	IM Specialist	NRCS
9 th June	Diksha Khadka	Sr. M&E Officer	ARC
9 th June	Manoj Khadka	M&E Delegate	ARC
10 th June	Bidur Regmi	Shelter Officer	ARC
10 th June	Santosh Karn	Livelihoods Officer	ARC
10 th June	Binita Poudel	Health Officer	ARC
10 th June	Mahesh Dhungana	Former WASH Officer	ARC
10 th June	Tirtha Raj Joshi	Country Manager/ Head of Program	ARC
11 th June	Dipak Giri	Shelter Coordinator	NRCS
11 th June	Birendra Shahi	WASH Coordinator	NRCS
11 th June	Saroj Shrestha	Livelihood Coordinator	NRCS
11 th June	Umesh Dhakal	Former Head of Earthquake Response Operation	NRCS
11 th June	Ishwar Regmi	ERO Liaison Coordinator	NRCS
11 th June	Janardan Pokhrel	ICB Coordinator	NRCS
12 th June	Richard McCabe	Country Representative	Canadian Red Cross
12 th June	Sergio Garcia Gonzalez	Former Country Representative	Spanish Red Cross
14 th June	Alastair Norris	Risk & Resilience Program Manager	Build Change

Makwanpur District

Interview Date	Name	Type	Location
9 th June	Mahesh Neupane - District Coordinator, NRCS - District HQ	KII	Hetauda - Makwanpur
9 th June	District Livestock Office	KII (Was not conducted as planned due to staff turnover)	Dis. Hq. staff turnover
9 th June	Santosh Lamshal – MIS specialist - Grant Management and Local Infrastructure (G-MALI) - District HQ	KII	Hetauda, Makwanpur
10 th June	Shelter VDC – Gogane , Makwanpur	Technical Inspection	Gogane – 2,1, Makwanpur
10 th June	Shelter Beneficiaries – Gogane , Makwanpur	FGD	Gogane – 2, Makwanpur

Interview Date	Name	Type	Location
10 th June	Thakuri Gurung - NRA Engineers	KII	Gogane, Makwanpur
11 th June	WASH (Toilet and Drinking water) Beneficiaries (Female only)	FGD	Gogane – 2, Makwanpur
11 th June	Mason Group	FGD	Gogane – 9, Makwanpur
11 th June	Pakani Thada Khola DWSS (water schemes and 7 HH Toilets)	Technical Inspection (Not in previous Plan)	Gogane – 8, Makwanpur
11 th June	Ganesh Moktan - NRCS Social Mobilizer	KII	Gogane – 9, Makwanpur
12 th June	Goat / Goat Sheding beneficiaries -	FGD	Thaha – 2, Makwanpur
12 th June	Health Post Inspection, Palung HP	Technical Inspection	Thaha – 2, Makwanpur
12 th June	Durga Regmi – ANM , Health Post staff, Palung HP	KII	Thaha – 2, Makwanpur
12 th June	Jantare Khola DWSS - (water schemes and 7 HH Toilets)	Technical Inspection	Thaha Municipality – 5, Makwapur
13 th June	Jantare Khola DWSS - User Committee ,	FGD	Thaha Municipality – 5, Makwapur
15 th June	Dubokhola irrigation System	Technical Inspection	Naamtar – 9, Makwanpur
15 th June	Gopi Maya Ghising - Female Community Health Volunteer (FCHV)	KII	Naamtar – 7, Makwanpur
15 th June	Health Beneficiaries / Cash for work Beneficiaries – Naamtar	FGD	Naamtar – 8, Makwanpur

Nuwakot

Interview Date	Name	Type	Location
9 th June	NCRCS President (Surat Bahadur Chitrakar)	KII	District HQ, Nuwakot
9 th June	NRCS District Coordinator (Rabin Dahal)	KII	District HQ, Nuwakot
10 th June	Talothok pipe irrigation	FGD	Kaule – 8, Nuwakot
10 th June	Godawari Mahila Bachat Samuha	FGD	Kaule – 4, Nuwakot
10 th June	Red Cross local level Social Volunteer (Hiramaya Tamang)	KII	Kaule – 8, Nuwakot
11 th June	Shelter Beneficiaries	FGD	Bhalche – 1, Nuwakot
11 th June	Ward Chairperson (Amrit Bahadur Tamang)	KII	Kaule – 4, Nuwakot
11 th June	Ward Chairperson (Aait Ghale)	KII	Bhalche – 8, Nuwakot
12 th June	Nuchet Primary School Sanitation infrastructure Beneficiaries	FGD	Bhalche – 8 , Nuwakot
12 th June	Nuchet Primary School Management committee	FGD	Bhalche – 8, Nuwakot
12 th June	Heping DWSS, infrastructure Beneficiaries	FGD	Bhalche – 9, Nuwakot
12 th June	Rural Municipality-Shelter support engineer (Gobinda Pandey)	KII	Kaule Rural Municipality
12 th June	Drinking water village maintenance worker (Pema Gyamjo Tamang)	KII	Bhalche – 9, Nuwakot
13 th June	Hasikhusi Women PMCG Group	FGD	Manakamana Archale – 8, Nuwakot
13 th June	District Livestock Field coordinator technical Person (Deepak Malak)	KII	District HQ Nuwakot (Livestock Office)

Interview Date	Name	Type	Location
13 th June	Grant Management and Local infrastructure(GMALI) District Coordinator (Badri Pyakurel)	KII	District HQ, Nuwakot (NRA Office)
15 th June	WASH (Toilet and Drinking water) Beneficiaries	FGD	Lachhyang – 7, Nuwakot
10 th June	Heping DWSS, infrastructure technical inspection	Technical Inspection	Bhalche – 9, Nuwakot
10 th June	Toilet infrastructure technical inspection	Technical Inspection	Bhalche – 9, Nuwakot
10 th June	Belsing DWSS, infrastructure technical inspection	Technical Inspection	Kaule – 8, Nuwakot
10 th June	Toilet infrastructure technical inspection	Technical Inspection	Kaule – 8, Nuwakot
10 th June	Health Post	Technical Inspection	Kaule – 8, Nuwakot
11 th June	Shelter technical inspection	Technical Inspection	Kaule – 8, 9, Nuwakot
11 th June	Shelter technical inspection	Technical Inspection	Bhalche – 8,9, Nuwakot
11 th June	Health Post	Technical Inspection	Bhalche – 4, Nuwakot

Rasuwa

Interview Date	Name	Type	Location
09 June	Mr. Madhusudhan Thapa - DC, ARC, Rasuwa	KII	District Office, Rasuwa
10 June	Mr. Babu Lal Tamang- President, NRCS - Rasuwa	KII	District Office, Rasuwa
10 June	Health Beneficiary Community, Bhorle, Rasuwa	FGD	Bhorle – 5, Rasuwa
10 June	Bhorle Health post, Bhorle, Rasuwa	Inspection	Bhorle Health post Office, Rasuwa
11 June	Digo Woman Savings Groups	FGD	Bhorle Beneficiary house, Rasuwa
11 June	Simle Badahare Drinking Water Users Group (DWSS)	FGD	Gairi/Gurung Gau, Beneficiary house, Rasuwa
11 June	Simle Badahare Drinking Water Scheme	Technical Inspection	Simle Intake, Bhorle, Rasuwa
11 June	Sisneri Muhan Ghari Water Scheme	Technical Inspection	Gumba Danda, Bhorle, Rasuwa
11 June	Ms. Sumina Nepali	Case study	Near Jwalamukhi Lower Secondary School, Bhorle, Rasuwa
12 June	Lali Gurans Initiative Group (PMCG)	FGD	Beneficiary House, Bhorle, Rasuwa
12 June	Raj Lal Thing, Village Maintenance Worker	KII	Beneficiary House, Bhorle, Rasuwa
12 June	Ms. Binda Kumari Dangol, FCHV	KII	Beneficiary House, Sharamthali, Rasuwa
12 June	WASH (Toilet Beneficiary Group)	FGD	Ward Office, Chihan Danda, Sharamthali, Rasuwa
12 June	WASH (Drinking Water Beneficiary Group)	FGD	Beneficiary House, Mane Danda, Sharamthali, Rasuwa
13 June	Toilet (WASH)	Technical Inspection	Beneficiary House, Chihan Danda, Sharamthali – 7, Rasuwa

13 June	Shelter Beneficiary, Thulogaun	FGD	Beneficiary House, Thulogaun, Rasuwa
13 June	Mr. Lal Bahadur Tamang, Ward Chairman, Thulogaun	KII	Ward Office, Thulogaun, Rasuwa
13 June	Health Post Incharge, Thulogaun	KII	Thulogaun Health post Office, Thulogaun, Rasuwa
13 June	Thosne Ghari Pipe Irrigation, Thulogaun	Inspection	Thosne Ghari, Thulogaun, Rasuwa
14 June	Goat Sheding Beneficiary Group, Thulogaun	FGD	Beneficiary House, Thulogaun, Rasuwa
14 June	Kamala Gurung, Red Cross Volunteer, Thulogaun	KII	Beneficiary House, Thulogaun, Rasuwa
14 June	Shelter Household Beneficiary, Thulogaun	FGD	Beneficiary House, Thulogaun, Rasuwa
15 June	Shelter Household, Thulogaun	Inspection	Beneficiary House, Thulogaun, Rasuwa
15 June	Mr. Dev BK, Social Mobilizer, Thulogaun	KII	SM House, Thulogaun, Rasuwa

APPENDIX C – SHELTER TECHNICAL REPORT

1. Introduction

Nepal suffered a massive loss of lives and property on Saturday 25 April 2015, when the devastating earthquake of 7.6M struck the country. As a result of the earthquake, 8,790 people died and more than 22,300 were injured. Assessments showed that at least 498,852 private houses and 2,565 government buildings were destroyed. Another 256,697 private houses and 3,622 government buildings were partially damaged. According to initial estimates arrived during the Post-Disaster Needs assessment (PDNA), NPR 669 billion would be required to reconstruct damaged properties and infrastructures and to support affected sectors of economy.

The National Reconstruction Authority (NRA) was established with the overall goal to complete the reconstruction work in a sustainable, resilient and planned manner to promote national interest and provide social justice by making resettlement and translocation of the persons and families displaced by the earthquake. The NRA provides strategic guidance to identify and address the priorities for recovery and reconstruction, taking into account both urgent needs as well as those of medium to long-term nature. It carries out overall responsibility of policy formulation, providing guidance, planning, coordination and oversight of the Housing Reconstruction Program.

Many partner organizations were supported by the Reconstruction and Recovery Program, which includes activities such as earthquake-resistant housing reconstruction support, public awareness, capacity development, livelihood, community infrastructure and many more. In this regards, American Red Cross in association with Nepal Red Cross Society launched the multidisciplinary program to support earthquake victims in Makwanpur, Nuwakot and Rasuwa Districts. This report consists of the technical inspection of private housing as per the visit of the Shelter Expert in the above-mentioned districts. The houses for the observation were selected through random sampling method.

2. Approach/Methodology

This report consists of the Field Observation data and verification of data received from the field. The following Methodology/ Approaches were used for the evaluation purpose:

- Thirty-one (31) houses were selected from the random sampling basis.
- All the houses were observed using the checklist that consisted of Technical and Social Parts of observation.
- Interaction with house owner has been done to find out the social aspect of reconstruction.
- Quality of housing reconstruction was observed technically.
- Meeting and interaction with trained masons and households was done to find out the literacy in 10 key messages of Build Back Safer.

3. Overview of activity

The main activities covered in the shelter program are mason training, public awareness and grant distribution to the beneficiaries who have constructed earthquake-resistant houses according to the government guidelines.

3.1 Mason Training

Mason training was focused on existing masons in the community through a seven-day training as per the standard of DUDBC. The main objective of the training was to teach masons the components of earthquake-resistant building construction. Build Change trained 1,097 mason who were certified by CLPIU-Building. Now they are working on reconstruction in their villages.

3.2 Public Awareness Program

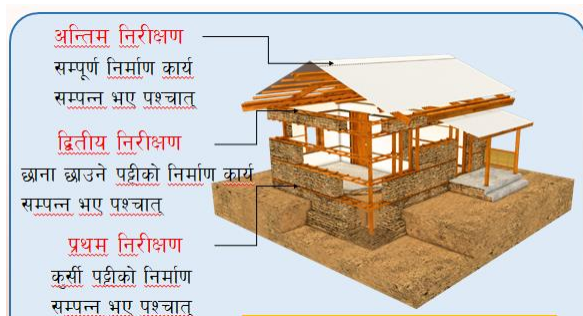
Another important activity was to inform households about 10 key messages of earthquake-resistant housing reconstruction, government norms and procedures, owner-driven housing reconstruction as well as the norms and values of Red Cross. Most households know about the 10 key messages and they are well informed about the norms and procedures of government in reconstruction. Chautari, Haat Bazaar, VDC hall and School premises are the venues where social mobilizers conduct the awareness program for the



people who were going to rebuild their damaged houses after the devastating earthquake. These activities really helped to build safer constructions which can face future disasters.

3.3 Tranche Distribution for the Households

After completing all the government procedures and requirements, the households received the grant from the American Red Cross in 3 instalments. The first instalment was received at the time of signing the Partnership Agreement (PA) to the value of NPR 50,000. The second instalment was received after completing the foundation to the value of NPR 150,000 and the third and last instalment was of NPR 100,000 given at the completion of the roof. After completing the shelter, households received a completion certificate from the NRA.



4. Progress Status

The VDCs covered by ARC support for shelter are as follows:

District	Former VDC	Ward No.	Planned for Housing Support	Achieve in Housing Support	Planned for Mason Training	Achieve in Mason Training
Nuwakot	Kaule	8 & 9	3000	3031	900	1097
	Bhalche	8 & 9				
Rasuwa	Thulogaunn	2 & 3				
Makwanpur	Gogane					

The data show target versus the program achievements, in which the actuals went more than the targets.

5. Observations

Field Observation was carried out according to the schedule below:

Day 1 (July 9, 2019)	Travel to Hetauda, Makwanpur District / KII with the Nepal Red Cross Society District Coordinator and GMALI MIS Expert in Hetauda/ Travel to Gogane, Makwanpur District, and night stay.
Day 2 (July 10, 2019)	Observation of 6 houses in Gogane, Makwanpur District/ Travel to Kaule, Nuwakot District and night stay.
Day 3 (July 11, 2019)	Observation of 10 houses in Kaule and 10 houses in Bhalche all over day in Makwanpur District/ Travel to Thulogaunn, Rasuwa District.
Day 4 (July 12, 2019)	Observation of 6 houses of Thulogaunn, Rasuwa District/ KII with 2 ward members of ward no 3/ Travel back to Kathmandu.

Field Observations data

SN	Name of the HH	District	Site selection of house	Shape size	Foundation	Vertical Band	Horizontal band	Roof	Requirements	Occupancy / Used	Vernacular Architecture	No of Room	Rating out of 5	Toilet	Remarks
1.	Bimala B.K.	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	3	Yes	Three Singled room houses of 3 beneficiaries joined by two rooms in between and added hybrid additional floor after receiving all government grant
2.	Ram Maya B. K.	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	3	Yes	Three Singled room houses of 3 beneficiaries joined by two rooms in between and added hybrid additional floor after receiving all government grant
3.	Santa Ghale	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	
4.	Sanke Lama	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	2	4	Yes	6 family members,
5.	Tenjen Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	4	4	Yes	Reinforced Cement Concrete (RCC) house, used properly
6.	Supa Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	4	Yes	Disabled family,
7.	Bal Bdr. Yonjan	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	No	No	1	3	Inc	3 family members, Doors and Windows incomplete
8.	Chhing Tamang	N	No	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	3	Yes	3 family members, very high retaining wall in steep slope, built 1 room and

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SN	Name of the HH	District	Site selection of house	Shape size	Foundation	Vertical Band	Horizontal band	Roof	Requirements	Occupancy / Used	Vernacular Architecture	No of Room	Rating out of 5	Toilet	Remarks
															temporary kitchen, using old toilet
9.	Dhana Lama	N	Ok	Ok	Ok	Ok	Ok	Ok	No	No	No	2	3	Inc	
10.	Gayatri Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	Single women, living alone
11.	Ban Bdr. Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	
12.	Panna Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	RCC, 2 roomed house
13.	Sachina Tamabg	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	4	4	Yes	RCC with 12 columns and shutters.
14.	Suresh K. Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	3	Yes	5 family members using old house.
15.	Subba Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	4	Yes	2 family members
16.	Binaya Lama	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	No	No	1	2	No	Grandson of Subba Tamang, parents died; house incomplete, Live in Kathmandu.
17.	Bir B. BK	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	3	Yes	Disabled family,
18.	Chetra B. Tamang	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	4	4	Yes	RCC, 4 roomed house, 4 family members.
19.	Kale Kami	N	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	3	Yes	Sloppy area high retaining wall, 3 family members, using old house.
20.	Bom B. Ghale	N	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	4	Yes	2 family members, kitchen outside

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SN	Name of the HH	District	Site selection of house	Shape size	Foundation	Vertical Band	Horizontal band	Roof	Requirements	Occupancy / Used	Vernacular Architecture	No of Room	Rating out of 5	Toilet	Remarks
21.	Jit Bhadur BK	R	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	No	1	3	Yes	5 family members space not sufficient.
22.	Ram krishna BK	R	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	4	Yes	3 family members/ self-constructed, NRs. 25000 saving in NRs. 3 Laks. Received NRs. 6000 for toilet and NRs. 4500 for snacks.
23.	Lila bahadur BK	R	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	5 family members.
24.	Bichari b.k	R	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	1	4	No	Wife died; 2 family members, incomplete Doors and Windows, Toilet support NRs.6000 received but toilet under construction dismantling old one.
25.	Chemali Gurung	R	Ok	Ok	Ok	Ok	Ok	Inc.	No	No	No	2	1	No	House incomplete built onto lintel level, Live in Kathmandu, Construction stopped 6 months ago.
26.	Surya bdr bista	M	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	Yes	2	4	Yes	New house in rent, staying in old house.
27.	Ser Bahadur Bista	M	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	Yes	2	3	Yes	
28.	Rajendra karki	M	Ok	Ok	Ok	Ok	Ok	Ok	No	Yes	Yes	1	3	Yes	

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SN	Name of the HH	District	Site selection of house	Shape size	Foundation	Vertical Band	Horizontal band	Roof	Requirements	Occupancy / Used	Vernacular Architecture	No of Room	Rating out of 5	Toilet	Remarks
29.	Kalyan Dhakal	M	Ok	Ok	Ok	Ok	Ok	Ok	No	No	No	2	2	Inc	House not in use, Doors and Windows incomplete,
30.	Gyan B Dhakal	M	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	Yes	2	4	Yes	2 family members, house fully utilized, proper finishing.
31.	Kanchi Shrestha	M	Ok	Ok	Ok	Ok	Ok	Ok	Ok	Yes	No	2	4	Yes	Single woman, husband left her before 13 years, 4 family members, and kitchen outside.

Table 4 - Shelter Field Observations

Note:

- **Districts**> N: Nuwakot; R: Rasuwa; M: Makawanpur.
- **Site Selection of Houses**> Ok: Houses built in proper location; No: Houses built in improper location.
- **Roof**> Ok: Complete; Inc.: Incomplete.
- **Requirements**> Yes: Family requirement fulfilled; No: Family requirement not fulfilled.
- **Occupancy/ Used**> Yes: House properly used; No: House properly not used.
- **Vernacular Architecture**> Yes: Vernacular Architecture followed; No: Vernacular Architecture not followed.
- **No of Rooms**> Numbers denotes the number of rooms built.
- **Rating in 5**> Out of number 5, what the rating of the house construction achieved in the view of observer.
- **Toilet**> Yes: There is toilet; No: There is no toilet; Inc.: Toilet is incomplete.

6. Findings/Challenges

- Minimum requirements for the construction of earthquake-resistant houses were followed by 95 percent of the households.
- Newly constructed shelters are generally more robust and better built than pre-disaster shelters. With regards to shelter access, this has created more resilient communities in case of future emergencies.
- Targets were fulfilled on time with total achievements.
- 10 key messages of the build back better concept are well known to the households.
- Due to the government cap on the cash grant, it is estimated that the house size requirements of 35 percent of households were not met. Many families are large, but houses are either one or two roomed. They are using temporary construction as well as old damaged houses.
- About 50 percent of the houses are singled roomed and 45 percent are double roomed which cannot fulfil the needs of all households.
- Reconstruction requirements resulted in the disappearance of traditional architecture.
- 20 percent of households have a problem with toilet construction, most of them have a toilet under construction and some have no toilets.
- About 20 percent of households have incomplete doors and windows.
- In Rasuwa, 50 percent of houses are in sloppy area with high retaining walls.
- For some vulnerable communities, Red Cross provided NPR. 6,000 to build a toilet and NPR 4,500 for snacks for labourers. These were motivational package for vulnerable communities.
- Reconstruction beneficiaries were borrowing the money in high interest rate for the construction of houses. They have no idea about the loan scheme of NRA.
- Out of 5, the average score for the shelter sector supported by ARC is 3.4, suggesting the program met required needs on average.
- Build Change, as the technical partner of ARC, provided very good support to the households in technical matters as well as housing designs and drawings.
- Red Cross training for masons and carpenters has resulted in strong linkages with the provision of additional livelihood support for the affected communities and local dissemination of the importance of strong foundations and strapping. Many masons now had much better engineering skills and techniques that they can use to maintain existing houses and access further work.
- Beyond Shelter, AmCross-supported livelihood activities such as goat farming, vegetable farming and chicken rearing had a positive impact. 50 percent of the trained households still continue the activities as a source of income. Somehow, hybrid culture entered in the village and the local product disappeared.
- Most of the singled roomed houses were built by households staying in the city area who built such houses just to receive the government grant. These houses are not completed or not in proper use. The criteria for the singled room houses should have been strictly followed to discourage such type of issues.

7. Recommendations

It is recommended that NRCS investigate the government loan program and, if feasible, provide training to local Red Cross volunteers and staff at the district level on options for beneficiaries to transfer from high interest to low interest loans.

Further actions are required to preserve traditional architecture.

The incorporation of rainwater harvesting and/or solar light provision in shelter design at household level can be seen as an important backup to community supply.

Report compiled by Dr. Diwat Kumar Shrestha

8. Pictures from the Field



Fig.1: Three Singled room houses of 3 beneficiaries joined by two rooms in between and added hybrid additional floor after receiving all government grant (Makwanpur).



Fig. 2: An incomplete house in Rasuwa. Construction stopped 6 months ago, but the owner still received all the grant instalments.



Fig. 3: Two singe roomed house in one, temporary room in front. Main houses cannot be seen (Rasuwa).



Fig. 4: The beneficiary is happy with new house. The house is properly used. She has built kitchen outside (Makwanpur).



Fig. 5: Proper earthquake-resistant house in rent but house owner is using old house (Makawanpur).



Fig. 6: Some Households are investing in Reinforced Cement Concrete (RCC) structure that is more expensive (Nuwakot).



Fig. 7: The reconstructed house cannot be seen due to temporary construction around the house in Rasuwa.

APPENDIX D – WASH TECHNICAL REPORT

1. Introduction

This technical report represents part of the final evaluation of *Nepal Earthquake Recovery Program (Utthan)*. The report focuses on the “hardware” components of WASH infrastructure, and the successes and challenges from the perspective of technical as well as delivery of intended services.

2. Approach

Drinking Water Supply and Sanitation (DWSS) Schemes and toilets at households and public institution (school) were chosen for the technical inspection using the criteria shown in the following table.

Technical Inspection - WASH / Toilet		
District	Infrastructure	Selection Criteria
Nuwakot	Belsing DWSS - Kaule / Toilet	Highest per capita cost
	Heping DWSS, HH Toilet (Bhalche) / Toilet	Lowest per capita cost
	School Sanitation Infrastructure, Bhalche/ Toilet	Only school sanitation
Rasuwa	Sisneri Ghari Muhan Gumbadanda, DWSS/ Toilet - Bhorle	Moderate per capita cost
Rasuwa	Simle Badahare Muhan Ghari Guru Gaon W/S Scheme, Bhorle, Rasuwa	Highest per capita cost
Makwanpur	Jantare Khola DWSS/Toilet - Thaha / Toilet	Highest number of taps
A maximum of seven toilets from those VDCs were inspected where DWSS schemes have been chosen.		

Table 5 - Selected Infrastructures with Selection Criteria

The WASH Specialist made field inspections as well as conducted key Informant Interview in the selected districts.

Day 1 (June 09, 2019):

- Visit to NRCS Nuwakot Office in Bidur and Kaule Village
- WASH expert was accompanied by Ms. Rita Khatiwada, GESI Expert, Mr. Ram Prasad Devekota, Supervisor and three enumerators: Mr. Bal Ram Regmi, Mr. Prem Dhant and Mr. Ashish Chaudhary.
- KII was conducted with Mr. Surat Bahadur Chitrakar, President of NRCS, Nuwakot.

Day 2 (June 10, 2019):

- Technical observation of the Heping W/S Scheme, selected beneficiary HHs along with Mr. Pema Gyangjo, VMW of the W/S Scheme
- Technical observation of the Belsing W/S Project and KII with Mr. Karan Bo Lama, Chair of the Users Committee and VMW of the Program

Day 3 (June 11, 2019):

- Visit to Bhalche. The field activities were carried out along with GESI Expert, Mr. Rajendra Shrestha, Supervisor and Enumerators namely Ms. Nirma Lama, Ms. Bhawana Khanal and Ms. Sunita Pandey
- Mr. Manoj Khadka and Ms. Namita Singh from the American Red Cross and Nepal Red Cross also joined the WASH Expert in visiting Simle Badahare Muhanghari Gurugaon W/S Project
- Technical observation of Simle Badahare Muhanghari Gurugaon W/S Project

- Technical observation of Sisneri Muhandanda Tatha Mukhiya Tole W/S Project

Day 4 (June 12, 2019):

- Communication with Division Water Supply Office in Dhadingbeni
- Travelled back to Kathmandu

3. Overview of activity and WASH infrastructure components

The hardware components of *Utthan Program* included shelter (house reconstruction), livelihood infrastructures (irrigation schemes, foot trails etc.) and WASH infrastructures (DWSS and toilets). Through the Utthan program, 37 DWSS and more than 3,500 toilets were constructed in three districts. All water supply schemes were constructed using gravity flow method using the combination of GI and HDPE pipes. The details of the water schemes can be found in Table 5.

	Water Supply Project s	District	Total estimated cost	Total P	per capita
1	Runchibang DWSS	Makawanpur	793,908.46	71	11181.81
2	Ritthe Khola DWSS	Makawanpur	1,354,978.04	174	7787.23
3	BolneCheper khola DWSS	Makawanpur	2,829,837.13	407	6952.917
4	Bich tole DWSS (Thulo lake)	Makawanpur	1,655,788.87	472	3508.027
5	Bardeu DWSS	Makawanpur	1,814,571.41	142	12778.67
6	Kailash DWSS	Makawanpur	558,772.50	264	2116.563
7	Simle Badahare DWSS	Rasuwa	1,589,001.49	87	18264.38
8	Obhane Karmidanda Maingaon DWSS	Rasuwa	3,519,319.51	444	7926.395
9	Phosung Khola DWSS	Rasuwa	2,031,237.48	248	8190.474
10	Chelchawari Muhan Gari Darghari DWSS	Rasuwa	2,548,630.32	399	6387.545
11	Sherpawati Kuleshwara DWSS	Rasuwa	1,458,399.60	110	13258.18
12	Heping DWSS	Nuwakot	4,524,467.27	1110	4076.097
13	Purano Pandhero DWSS	Nuwakot	480,842.17	256	1878.29
14	Thulo Khola Chhetun DWSS	Nuwakot	1,362,575.58	169	8062.577
15	TalloPallu DWSS	Nuwakot	1,080,380.93	159	6794.849
16	Neupane Kholi DWSS	Nuwakot	758,774.67	94	8072.071
17	Chhapathe DWSS	Nuwakot	968,595.21	88	11006.76
18	Belsing DWSS	Nuwakot	1,316,409.40	67	19647.9
19	Ghattepang DWSS	Nuwakot	1,007,864.71	64	15747.89
20	Ambote Muhan Khet DWSS	Nuwakot	1,627,037.60	163	9981.826
21	Dhobikhola Bajogara khet DWSS	Nuwakot	2,628,382.85	216	12168.44
22	Hudruk Khola DWSS	Makawanpur	1,968,611.90	317	6210.132
23	Purano Gaun DWSS	Makawanpur	1,439,368.39	121	11895.61
24	Panchkanya Rajrang DWSS	Makawanpur	3,360,957.50	201	16721.18
25	Kimarjung Simko Muhan Ghari DWSS	Rasuwa	755,912.06	45	16798.05
26	Mangse Khola Muhan Ghari DWSS	Rasuwa	1,460,332.31	110	13275.75
27	Sisneri Muhan Ghari Gumbadada DWSS	Rasuwa	1,633,964.84	167	9784.221
28	Thulo Khola Sim Muhan Ghari Tol DWSS	Rasuwa	774,424.20	70	11063.2
29	Washyong Khola Thokra Purano Tole DWSS	Rasuwa	637,400.01	45	14164.44
30	Thargau Baradi DWSS	Nuwakot	1,811,004.91	170	10652.97
31	Thulokhola Nakatachaur DWSS	Nuwakot	2,611,134.92	297	8791.7
32	Mas Khorla Muhan Gari Dhungamati Ghale Gau	Rasuwa	1,371,974.11	88	15590.61
33	Dharapani Magar Gaun DWSS	Rasuwa	1,235,642.72	91	13578.49
34	Rakyo Kharka Kailash DWSS	Makawanpur	4,195,792.33	294	14271.4
35	Pakani Thadokhola DWSS	Makawanpur	2,666,952.22	299	8919.573
36	Jantare Khola DWSS	Makawanpur	7,655,482.99	674	11358.28
37	Valukhola DWSS	Makawanpur	1,773,696.54	317	5595.257
	Total (In numbers)		59,166,295.41	8,510	6952.561

Table 5 – List of Water Supply Schemes

4. Key Observations

4.1 KII Mr. Surat Bahadur Chitrakar, President of NRCS, Nuwakot has been serving Nuwakot Red Cross for the last 38 years. The interview revealed the information enlisted below:

- The beneficiary selection was conducted through one window policy and the co-ordinator was the Chief District Officer.
- Issues were identified with the staff who were recruited from HQ as well as with the social mobilisers for whom there was a mandatory provision that they should belong to the same Gaulpalika. The turnover in case of the former was very high, and there was a chance of influencing the implementation procedure in case of the later.
- Eight Village Development Committees (VDCs) were covered and the different types of interventions covering selected beneficiaries resulted in more grievances.
- Technical support was provided by American Red Cross, but the structures of WASH were not in par with those constructed by other organizations.
- The activities conducted by Red Cross were efficient as of which the instalments were released faster in the program areas
- It was difficult to by-pass the pressure from the elected officials. They often put conditions for approving some documents.
- Future programs should be recommended by communities and selected by local bodies
- Government Policy of Registration process of the NRS District Office is not clear.

4.2 Helping W/S Scheme, Bhalche, Nuwakot

- Largest project in terms of no. of taps (44) and the construction cost (4.5 million NRs) but lowest per capita cost (NRs 4076).
- Intake design is not up to standard (Valve chambers are missing, and the water collection area is not covered by stones and gravels). There are 8 different pipes meant for water collection of at least 6 schemes and, 2 of them were not fully immersed. This may be a source of potential conflict. (Ref. Fig. 7, Fig. 8)
- Transmission line having HDPE pipe was found exposed (Ref. Fig. 9)
- HDPE pipes (6 in nos.) used for getting water directly at the individual houses compromised the objective of public tap stand post, this is also the potential source of conflict. (Ref. Fig. 3)
- Taps meant for children were found plugged with stinging nettle plant or a wooden stick to avoid children reach. This compromises the objective of children friendly tap. (Ref. Fig. 1 and 2)
- Recently constructed toilet in Nuchet Primary School, Nuchet, Bhalche had some issues: boys and girls urinal section used to store construction materials, locks were at higher level, and spans of the girls squatting pan were larger (Ref. Fig. 4, 5, 6).
- Poor drainage of the wastewater from the tap led to the flooding of walkway and pollution at the project area. Project design does not include the provision of proper disposal of wastewater (Ref. Fig. 11)
- Poorly maintained hoarding board (Ref. Fig. 13). However, such boards in other projects were found in a better condition.
- Tapstand post was found without taps and water was being used to raise the paddy seedlings. (Ref. Fig. 13)

4.3 Belsing W/S Scheme, Bhalche, Nuwakot

- There were 11 taps in the design, but Mr. Karan Bo Lama Chairperson of the user committee said they later added one tap. This project had the highest per capita construction (NRs 19648)
- The scheme was found in very good condition. No issues were observed at the intake, reservoir, pipeline and the tap stand post.
- One of the reasons why the project was more successful than other projects could be because of the strong leadership provided by Mr. Lama, who also serves as VMW. He is also an elected member of the Wardpalika (Ward No. 3). He is also the chairperson of the School Management Committee of the Jyoti Adharbhit Vidyalaya. JICA is supporting construction of two buildings for this school and the construction is ongoing.
- Responding to the question of why the per capita cost of this project was the highest, Mr. Lama pointed towards two reasons. Firstly, as per the Red Cross guideline the inclusion of marginalized, women and Dalit were mandatory and same wages were provided to them. Secondly, since this was the project under 'Cash for Work' (Livelihood theme), no beneficiaries of the captioned project were allowed to work. The labour force from outside was not effective so it took more person-days to complete the job.

4.4 Simle Badahare Muhanghari Gurugaon W/S Scheme, Bhorle, Rasuwa

- There were 9 taps in the design and per capita cost was NRs 18265. One of the reasons for this could be relatively long transmission line (2023m).
- Poorly constructed valve chamber (unfinished floor and wall of the chamber and the tee of the outlet pipe is redundant), poorly constructed fencing and entrance gate, and exposed HDPE pipe were observed. (Fig. 15, 16 and 17).
- HDPE pipes were found connected to the taps. This would compromise the objective of the public tap stand post. The tap stand post platform was also found flooded. (Refer Fig. 18).

4.5 Sisneri Muhan Ghari Gumbadanda W/S Scheme, Bhorle, Rasuwa

- Gate valve and the pipes were found submerged in water as of the leaking wall, an equal amount of tapped discharge is wasted on the intake periphery due to faulty design. VMW said that he could not mobilise the UCs to repair these (Refer Fig. 19)
- Tapstand post constructed in corn field, assuming that the landowner will construct a house in near future. The Social Mobiliser said that the program was criticized by the President of the NRCS. He blamed that the NRCS staff deliberately put more programs at Bhorle (Refer Fig. 20).
- The area shown in Fig. 21 was found crowded with tap stand posts. There are two additional Red Cross supported taps in a similar distance of the taps shown in the photo. Interestingly, there are two taps in the same area constructed by earlier programs. When the team visited, Red Cross supported taps were running dry but the old program taps were running fully. There were about 10 HHs covered by 6 taps in total.

4.6 Jantare Khola W/S Scheme, Thaha Municipality, Makawanpur

- Intake of Jantare Khola W/S scheme, Thaha -5, Makawanpur (A GI pipe on the left seems unusual and the fencing without cross line (Ref. Fig. 21)
- Exposed HDPE pipes (Ref. Fig. 22)

4.7 Pakani Thada Khola W/S scheme, Gogane-8, Makawanpur

- Suspended HDPE pipe (Refer Fig. 23)
- A HDPE pipe at a tap stand post (Refer Fig. 24)
- Toilets were found to keep firewood (Refer Fig. 25)

4.8 Duwa Khola Irrigation Project

- A log is used to control the flood and a stone is used to control the flow (Refer Fig. 26)

5. Challenges

Although there are plenty of tap stand post constructed, many of them were found to be not serving the purpose they were meant to. For instance, the users of costliest project (Helping W/S Scheme) seemed to want an individual pipeline in their house rather than public tap. People were found to be using toilets as pantry to store construction material and other household items. This is raising the question about how well people were made aware of the importance of sanitation and hygiene. If infrastructure is not serving the intended populations and intended objectives, it makes no sense.

6. Recommendations

Based on the inspection of the infrastructures, following recommendations for the future interventions can be made:

- a. Communities should be involved in the program planning phase in order to understand what they really need and want.
- b. The technical design of the structural components should be site-specific.
- c. No HDPE should be allowed to be exposed on the ground
- d. The protective measures at intake as well as for the transmission pipelines of W/S schemes should be designed, placed and monitored.
- e. Assessment of proper location for the infrastructure is needed.

- f. Monitoring of the construction of the facilities and pipe trench should be done thoroughly and mechanisms for this should be made more robust.
- g. Water demand for local needs such as soaking the bamboo sticks in the water or raising paddy seedlings should be estimated and included in the design. Provisions of using wastewater from the platforms can be made.
- h. Drainage facilities for wastewater from the platforms should be included in the design.
- i. If there are old projects and facilities such as reservoirs or tap stand posts available, then a strategy of rehabilitation for such facilities and inclusion of such facilities in the new project should be made.

Report compiled by Dr Nawa Raj Khatiwada

7. Pictures from the Field



Fig. 1: Plugged lower tap meant for children (Heping W/S Project, Bhalche, Nuwakot)



Fig. 2: Lower tap plugged by stinging nettle plant to avoid children reach (Heping W/S Project, Bhalche, Nuwakot)



Fig. 3: HDPE pipes (6 in nos.) used for getting water directly at the individual houses compromising the objective of public tap stand post, this is also the potential source of conflict (Heping W/S Project, Bhalche, Nuwakot)

Fig. 4: Girls urinal room in Nuchet Primary School, Nuchet, Bhalche being used to store cement, The toilet was constructed under American Red Cross and Spanish Red Cross



Fig. 5: A Girls urinal (span of squat is 30 cm) in Nuchet Primary School, Nuchet, Bhalche. The toilet was constructed under American Red Cross and Spanish Red Cross

Fig. 6: Water collection pipes at the intake of Heping W/S Scheme (There are 8 different pipes for collection meant for at least 6 schemes, two of them were not fully immersed, the intake design is not up to standard and a source of potential conflict)



Fig. 7: Toilet constructed with mud mortar in one of the users of Heping W/S Scheme

Fig. 8: Position of inside lock in the toilet of Nuchet Primary School, Nuchet, Bhalche, The toilet was constructed under American Red Cross and Spanish Red cross



Fig. 9: Water collection pipes at the downstream side of Heping W/S Scheme (Valve Chamber was not constructed, as of this the maintenance works would be difficult)

Fig. 10: Transmission line of Heping W/S Scheme (HDPE pipes should be avoided in exposed or rocky area)





Fig. 11: Poor drainage of the wastewater from the tap leading to the flooding of walkway and pollution at the project area of Heping W/S Scheme

Fig. 12: Poorly maintained Hoarding Board of Heping W/S Scheme



Fig. 13: Tapstand post without taps (Water is being used to raise the paddy seedlings)

Fig. 14: Hoarding Board of Belsing W/S Scheme (very well constructed and maintained project, this was constructed under the livelihood program)



Fig. 15: Poorly constructed valve chamber at Simle Badahare Muhan Ghari Guru Gaon W/S Scheme, Bhorle, Rasuwa (Unfinished floor and wall of the chamber and the tee of the outlet pipe is redundant)

Fig. 16: Poorly constructed fencing and the entrance at Simle Badahare Muhan Ghari Guru Gaon W/S Scheme, Bhorle, Rasuwa (Strangers and the animal can enter the intake premises and error on the entrance)



Fig. 17: Exposed HDPE pipe and the tee at Simle Badahare Muhan Ghari Guru Gaon W/S Scheme, Bhorle, Rasuwa (HDPE pipe should be kept at 3 feet and the tee should be kept in a distribution chamber equipped with gate valves to control the discharge)

Fig. 18: HDPE pipes connected to the taps and flooded platform at Simle Badahare Muhan Ghari Guru Gaon W/S Scheme, Bhorle, Rasuwa (Unfinished floor and wall of the chamber and the tee of the outlet pipe is redundant)



Fig. 19: Valve chamber at the intake of Sisneri Muhan Ghari Gumbadanda W/S Scheme, Bhorle, Rasuwa (Gate valve and the pipes are under water as of the leaking wall, an equal amount of tapped discharge is wasted on the intake periphery as of faulty design, VMW said that he could not mobilise the UCs to repair these)

Fig. 20: Intake of Jantare Khola W/S scheme, Thaha -5, Makawanpur (A GI pipe on the left seems unusual and the fencing without cross line



Fig. 21: Exposed HDPE pipes at Jantare Khola W/S scheme, Thaha -5, Makawanpur

Fig. 22: A Latrine in one of the beneficiaries of Pakani Thada Khola W/S Scheme, Gogane - 8, Makawanpur (It is used to keep firewood.)



APPENDIX E – HEALTH TECHNICAL REPORT

1. Introduction

Nepal was struck by a big earthquake in 2015 and affected at least 18 districts of central and western Nepal killing several thousands of people and severely disrupting the life of people. Several donor countries and international humanitarian organizations worked in different aspects of earthquake recovery programme. With the technical and financial support of ARC, Nepal Red Cross Society implemented “Nepal Earthquake Recovery Program” in selected areas of three districts namely Rasuwa, Nuwakot and Makwanpur. The recovery program implemented included multi-sectoral interventions such as shelter, water and sanitation, livelihood and health. Within the program areas health interventions implemented in few sites only and not in the total program areas.

2. Approach

Final evaluation of program supported health activities done in both quantitative with household surveys and qualitative methods with. The qualitative evaluation done with focus group discussions (FGD) with female community health volunteers and health beneficiaries and key informant interviews (KII) done with health personnel working in the local health facilities. Another qualitative study done by technical inspection of 4 health facilities as follows in between the 10 June- 17 June 2019.

- Bhorle Health Post, Rasuwa
- Palung Health Post, Makwanpur
- Kaule Health Post, Nuwakot
- Bhalche Health Post, Nuwakot

3. Overview of health activities in program areas

As a multi-sectoral intervention, the program aimed to strengthen the primary health care services focusing key health interventions such as immunization, safe motherhood services, outbreak and emergency preparedness, behaviour change communication and re-establishing the outreach clinics.

4. Observations of the technical inspection of health facilities

The following covered by program support included in the technical inspection-

4.1 Availability of essential equipment

Health facilities have essential equipment such weight machine, stethoscope, fetoscope and BP instrument necessary to carry out the patient examination and this equipment was found to be functional in all health facilities visited.

4.2 Outbreak and emergency preparedness

All health facilities had emergency kits, used in emergency situations to carry out the first aid treatment. They also had mattresses and IV stands available to deal with the emergency cases.

4.3 Hygiene and sanitation

Out of four health facilities three health facilities visited had functional hand washing facilities, toilets and drinking water provisions, though there were issues like medical waste management and lack of sewerage facilities.

4.4 Institutional physical facility

Out of four three health facilities had minimum space for physical space for waiting, patient examination, medical procedure and storage and distribution of essential drugs.

4.5 Patient information and education

Technical inspection reports showed that health facilities had adequate health education materials for patient information and education.

4.6 Outreach clinics

All health posts informed that they are conducting outreach clinics every month as per schedule and a box is ready for carrying the drugs and equipment. The services offered by outreach clinics are well utilized by local people.

5. Overall rating of the clinics in view of the availability of services

The overall rating of health facilities is 3-4 out of 5.

6. Limitations of the technical inspection

The health facilities technical inspection planned for outreach clinics, but they open only once in a month only and this made technical inspection impossible, so as a proxy of outreach clinics health posts chosen for the technical inspection.

7. Challenges

- Health facility building problems- inadequate space in some facility
- Repair and maintenance problem-problems related to building maintenances
- Medical waste management
- Health and sanitation- no hand washing facility and toilet in some health facilities
- Under use of equipment-No proper use of equipment and health education materials

8. Recommendations

Briefing of the work carried out by the program to the local government and their role for sustaining the achievements

9. Conclusions

The multi-sectoral intervention has contributed by making primary health services focusing maternal health, child health and emergency preparedness functional.



Fig. 1: Scale at the outreach Clinic Palung Health Post - Makwanpur



Fig. 2: Signpost at the outreach Clinic Palung Health Post - Makwanpur

APPENDIX F – LIVELIHOOD SCHEMES TECHNICAL REPORT

1. Introduction

This technical report is a part of final evaluation of Nepal Earthquake Recovery Program (Utthan). The report focuses on the community's infrastructures components for the improvement of livelihood production.

2. Approach

Small irrigation and accessibility improvements were chosen for the technical inspection using the criteria shown in the following table.

District	VDC	Selected Infrastructures	# People benefited by CfW	# HH Benefited	Location
Nuwakot	Kaule	Panchalinge Dawachet road improvement, ward 6-8	82	289	Road part of Panchalinge School to KauleBajar. It is located in ward 8.
Rasuwa	Thulogaun	Pipe Irrigation ward 1	79	197	It is Thosne Ghari Irrigation. It located in end part of Thulogaon VDC in upper to Dalit tole.
Makawanpur	Naamtar	Irrigation System Dubakhola	113	76	It is in end part of Naamtar VDC.
TOTAL		21	1673	3038	

One project that was developed for WASH but was constructed under the livelihood program, namely Belsing W/S Scheme, Bhalche, Nuwakot was also evaluated. The Researcher and Supervisors made field inspections as well as conducted key Informant Interview in the selected districts.

3. Overview of activity and LIVELIHOOD infrastructure components

After the devastating earthquake that hit Nepal in 2015, Nepal Red Cross Society (NRCS) with the support from American Red Cross (ARC) began implementing the Nepal Earthquake Recovery Program (Utthan) in three districts, Nuwakot, Rasuwa and Makwanpur from October, 2015. The hardware components of Utthan program included shelter (house reconstruction), livelihood infrastructures (irrigation schemes, foot trails etc. and WASH infrastructures (DWSS and toilets). Through Utthan program, 21 different livelihood related infrastructures were constructed in three districts.

4. Key Observations

a) Observation of Panchalinge Dawachet road improvement, Ward 6-8 was conducted with beneficiaries.

- The project was identified by the beneficiaries for the improvement of accessibility of goods and services.
- NRCS has followed the commitments for the road improvements in close coordination with the users committee.
- The infrastructure i.e. road is in use and the further improvement with local government support is going on.



- In this infrastructure improvement there is a quite good beneficiary's support.

b) Dubakhola Garigau Morangkot Irrigation Project, Naamtar, Makwanpur

- This project was completed as planned
- The command area of this project is nearly 38 ha.
- This project is identified by the user committee, and followed the procurement guideline of NRCS.
- Water user committee (WUC) is formed to develop and supervise the construction works.
- WUC is oriented to minor repair and maintenance. They conduct regular monthly meeting for condition and water distribution plan development.
- WUC has collected nearly NRs 20,000.
- The system is currently performing well.
- Year-round irrigation is available, so cropping intensity is more than 275 percent.



c) Thosne Ghari Irrigation, Thulagaun, Rasuwa.

- This project was completed as planned (started on 5/18/2016 and completed on 5/22/2019).
- The total length of the system is 1,500 meters.
- Command area of this project was planned at 51 ha.
- The project has targeted to cover the command area located at ward no 1 to 5, but due to the lack of pipe length, only up to ward 1 is supported by the system.
- Actual command area is 13ha
- This project is identified by the user committee, and followed the procurement guideline of NRCS.
- Water user committee (WUC) is formed to develop and supervise the construction works.
- The completed section of the project is performing well.
- WUC is oriented to minor repair and maintenance and water distribution plan development.
- In completed section, the cropping intensity is nearly 200 percent.
- Water users are growing cash crops too.

d) Belsing W/S Scheme, Bhalche, Nuwakot

- This Scheme was developed for the improvement of WASH but constructed under the livelihood program.
- There were 11 taps in the design but the Mr. Karan Bo Lama, Chairperson of the user committee said they later added one tap.
- The scheme was found in very good condition. No issues were observed at the Intake, Reservoir, pipeline and the tap stand posts.
- One of reason of the success of the project is due to the strong leadership provided by Mr. Lama, who also serves as VMW. He is also elected member of the Wardpalika (Ward No. 3). He is also the chairperson of the School Management Committee of the Jyoti Adharbhut Vidyalyaya. JICA is supporting to construct two buildings for this school and the construction is ongoing.
- This project has followed the procurement guideline and has provided the CFW to marginalized, women and Dalit were mandatory and same wages were provided to them and were from the beneficiaries group.

5. Challenges

All users are aware about the proper use and management of the systems constructed. But in the case of Thosne Ghari Irrigation system the command area that was planned was not realised. In other section NGO SHASH has supported and completed the project. In such cases it is needed to estimate as per the need.

6. Recommendations

- Based on the inspection of the infrastructures, following recommendations for the future interventions can be made:
 - Communities should be involved in the planning phase in order to understand what they really need and want.
 - The technical design of the structural components should be made site specific.
 - Demand and need-based livelihood support projects are successful and will be manage properly the case of road improvement and the irrigation system.

7. Pictures from the field



Fig. 1: Intake site of the Duwa Khola Irrigation Project, Gogane-8, Makawanpur



Fig. 2: Hoarding Board of Belsing W/S Scheme
(Very well constructed and maintained project, this was constructed under the livelihood program)

Report compiled by Mr. Kamal Raj Gautam

APPENDIX G – CASE STUDIES

CASE I From Exclusion to Inclusion

After the earthquake Nepal Red Cross Society supported me a lot. With their support we formed a women's group called "Sustainable Women Saving Group". There are around 15 members in that group and I am one of them. I started saving up to Rs. 100 in a week till six months of its formation and later I started saving up to Rs 500 in a month. This gave me financial support and confidence to start a small business.

Being a Dalit and landless woman, I couldn't get any support from people in my community. Which led to my low confidence. However, I got an opportunity to participate in five leadership trainings organized by the Nepal Red Cross Society, where I gained knowledge on women's rights, growing vegetables and how to save. With their support, I started raising goats and chickens. I got a loan of Rs. 6000 from our group and bought three chickens and some vegetable seeds to grow vegetables in my kitchen garden. Before I got the training from Nepal Red Cross Society, I had no idea about being in a women's group, not to mention growing vegetables in my own kitchen garden and rearing chickens with little money. The vegetables from my kitchen garden helped me to improve my family's health with fresh vegetables and saved my money as I didn't have to buy vegetables from the market. All these activities helped to increase my income and save more. Now I can manage to save Rs. 700 every month in local finance and I have more than Rs. 40000 savings in total I am thinking of buying an insurance scheme for my son to make his future safe.

Since a long time, my husband and I were the member of one of the cooperatives in our village. In that cooperative, there was a provision of Rs. 30000 loan without any collateral for the shareholders. However, we needed to produce the guarantor to be able to get that loan. One day we needed money for an urgent need and we thought of getting a loan from that cooperative. However, no one trusted my husband and I and none of them wanted to be our guarantor. So, we couldn't get loan. This made me so sad a feeling of humiliation.

Now I am the secretary of the "Sustainable Women's Saving Group" and I also teach in the local school on a part-time basis with support from local resources. People respect and trust me these days. If there are some social issues in the community, people seek my advice or invite me to a meeting. Family member's perceptions and attitude towards me has also changed. My family encourages me to go out from home and take part in public affairs. In the past, they wanted me to be at home, do the household chores and be an obedient daughter-in-law. Nowadays, I am free to choose whatever I want to do and I get full support from my family. When I go out for a meeting, my husband takes care of our son. I am consulted with all the household decisions now.

With the support from Nepal Red Cross Society, I learned a lot on adopting improved hygiene behavior through proper menstrual hygiene management. In the past, my family was very strict in terms of entering the kitchen and cooking food during menstruation. However, after sanitation awareness from Nepal Red Cross Society I manage cleanliness and hygiene during the menstruation in a better way and I have been able to convenience my father-in-law for being liberal on menstrual restrictions. I can now feel free and respected during my period. However, I still respect my father-in-law's concern and do not enter the worshipping room.

All these supports and activities have truly empowered me socially and economically. I am really grateful the Nepal Red Cross Society for all the changes that have taken place in my life and the lives of others.



Figure 12 - Sumina Nepali,
Naukende, Bhorle 5, Rasuwa

CASE II

What matters most: integration approach or the local leadership?

The Utthan project emphasized on the integrated approach covering shelter, WASH, livelihood and health development streams. The livelihood related interventions also included construction of water supply schemes, irrigation projects, foot trails, school sanitation facilities and improvement of roads under the umbrella of 'cash for work' program. In this financial support is provided to the beneficiaries by acknowledging their contribution as labor force needed for the construction of the facilities. For the selection of the projects, planning them and executing the project activities and mobilizing the communities for in-kind contribution, strong leadership is also essential. This case study focused on the following question:

"What matters the most: integration approach or the local leadership?"

The beneficiaries under the livelihood theme were selected following a pre-defined criteria given below:

"Beneficiaries should be selected through a targeted approach selecting the most vulnerable within the communities. Local government databases could be used to identify vulnerable groups such as widows, senior citizens, single mothers, disability, young children under five in risk groups, indigenous groups and Dalits or through participatory community-based targeting."

(Ref: Livelihood Recovery framework)

In this case study, a showcase project of water supply and sanitation implemented under the livelihood theme was taken as a reference. The project was designed and constructed to provide clean water to 19 households in Belsing village of Kispang Gaupalika (Ward No. 3) in Nuwakot district. The beneficiaries included a population of 72 and a total of 175 students of a school. The salient features of the project and other details are given in the 'Project Notice Board'. The total project cost was estimated as NRs. 1,230,629.90 out of which NRs 86,982.17 (7 %) was contributed by the community and rest was provided by American Redcross and Spanish Redcross. However, these figures were slightly different in the project documents.

A comparative picture of the three projects including the Belsing Water Supply Scheme is shown in Table 1. As shown in Table 1, the community contribution of the Belsing Water Supply Scheme was only 6% but these figures were found as 20 % and 18% in the other two projects. It is interesting to note that the construction period for the Belsing Water Supply Scheme was mentioned as 2 months in the project document whereas this period for the other two projects were 4 months and 2 months, respectively. The project notice board depicts this period as 7 months for Belsing Water Supply Project. There were 11 taps in the design but the Mr. Karan Bo Lama Chairperson of the user committee said they later added one tap resulting in total nos of tap to be 12. However, as shown in Table 2, the total no. of taps for this project given in the project document is only 10.

As shown in Table 1, the per capita cost of Belsing W/S Project was the highest among the three and interestingly this figure was also found highest among the 37 water supply projects constructed by the Utthan project. The average per capita income of the 37 projects was found as NRs 10,300. Interestingly, the per capita cost of the Belsing W/S project was found nearly double of the average per capita cost. Regarding the community contribution, the lowest and highest were found to be 6% and 20% respectively. So, the Belsing W/S Project was a typical case in the sense that it was constructed with the lowest share of community contribution and it had the highest per capita cost. The main reason for this was as major portion of the labor force originating from the 'cash for work' activity.

Table 1: Comparison of the cost of three projects

Project name	No. of taps	Project cost, NRs	Community contribution	Per capita cost , NRs
Heping W/S project, Bhalche 8,9	44	45,24,467.27	20 %	4076.10
Ghattepang W/S Project, Kaule 2	8	10,07,864.71	18 %	15747.00
Belsing W/S project, Kaule 2	10	13,16,409.40	6 %	19647.90

During the field inspection, Belsing Water Supply scheme was found in very good condition. No issues were observed at the Intake, reservoir, pipeline and the tapstand posts. When compared with other projects, the situation was slightly different. There were some issues for example, exposed pipeline, use of HDPE pipe in the rocky sections, improper fencing on the intake and the reservoirs, leaking valve chambers in other projects observed during the field visits. For these reasons, Belsing W/S Scheme was taken as a project with relatively better construction quality and had a higher level of functional status.

Thus in terms of per capita cost, community contribution, construction quality and functionality status, Belsing W/S project was found different to other projects. This was the main reason for considering this project as a show case project for this case study. As the topic suggested, the case study aimed at finding the answer to the question 'what mattered the most: integrated approach or the local leadership? As mentioned above, Belsing W/S project was constructed under the livelihood theme. There were two prong objectives, first was to provide a financial support to the selected marginalized HHs in terms of 'cash for work' and the second being to utilize their labour contribution in constructing the water supply infrastructures.

Now the question was why the W/S projects constructed with the higher community contributions were not at par with Belsing W/S project which had the least community contribution. The reasons behind this were explained by Mr. Karan Bo Lama, Chairperson of the Belsing W/S Project.

One of reason of the success of the Belsing W/S project compared to other projects could be due to the strong leadership provided by Mr. Lama, who also serves as Village Maintenance Worker (VMW). He is also elected member of the Wardpalika (Ward No. 3). He is also the chairperson of the School Management Committee of the Jyoti Adharbhat Vidyalaya. JICA is supporting to construct two buildings for this school and the construction is ongoing. This really proves the leadership quality of Mr. Lama. But on the other hand, it would have been better if the position of VMW would have entrusted to someone else. This would have helped to empower the other person. Mr. Lama explained about his hard efforts in mobilizing the beneficiaries, liaising with the project staff and other the local leaders. He has also made personal contributions while constructing the project.



Figure 133 - Reservoir site (Mr. Lama himself removing the manhole cover)

Responding to the question of why the per capita cost of this project was the highest, Mr. Lama pointed towards two reasons. Firstly, as per the Redcross guideline the inclusion of marginalized, women and dalit were mandatory and same wages were provided to them. Secondly, since this was the project under 'Cash for Work' (Livelihood theme), no beneficiaries of the captioned project were allowed to work. The labour force from outside was not effective so it took more person-days to complete the job.

Thus in a nutshell, it can be concluded that although the project objectives of providing the opportunities for marginalized HHs with the 'Cash for Work' scheme and through the integrated approach, the cost of the project had gone highest. This would compromise the engineering principle of 'optimisation of resources' and economics principle of 'cost benefit analysis'. However, since the objective of the livelihood project was to provide the opportunity for the selected HHs and provide them benefits as far as possible, one may justify the achievements of the project meeting the objectives. In conclusions, this case study results showed that strong leadership is the ultimate requirement for the success of the project rather than the integrated or isolated approach.

CASE III

Reconstruction through Owner Driven Approach, the case of Kaule (ward no: 8 and 9) and Bhalche (ward no: 8 and 9) of Nuwakot District of Nepal

Introduction

The Utthan project was a homeowner driven re-construction project implemented by the American Red Cross (ARC). Homeowners will ultimately choose to build a safe, earthquake resistant house that is compliant with all guidelines and regulations. The Utthan project was innovative in Nepal due to both the technical support provided, and the scale of reconstruction effort.

The success of the Homeowner driven methodology can be seen in both the number of homeowner's who have completed a house that is fully compliant and conforms to all required standards and checklists.

The **main purpose** of this Case Study is: to look after the proper application of homeowner driven re-construction as well as its effectiveness in safer construction. The 10 key messages of Building Back Safer (BBS) and its application is another part of this case study.

The objectives of this program are: to aware people in 10 key messages and homeowner driven re-construction, capacity development of masons and carpenters, mobilizations of engineers for technical support.

Methodology

This case study is based on Field Observation and Verification. The following Methodology/ Approaches were used:

- Visit and observation of the houses.
- Interaction with house owner has been done to find out the effectiveness.
- Quality of housing reconstruction was observed technically.
- Meeting and interaction with trained masons and households.

The Case of Kaule (ward no: 8 and 9) and Bhalche (ward no: 8 and 9) of Nuwakot District

Kaule and Bhalche of Nuwakot District are the safer villages with newly constructed houses. People are encouraged to follow the safer construction techniques. They know about the components of safer construction. They follow, they teach and they participate in safer construction. Everybody observes the work of the Mason. We can see the posters, pamphlets and hoarding boards about safer construction. People are motivated with Build Back Better and the owner driven approach.

Definition of ODA

"The Owner Driven approach enables the affected communities to undertake construction work by themselves according to their need with external financial support and technical assistance."



House of Ban Bahadur Tamang, Bhalche-9



House of Binaya Lama Kaule-8

Total Houses visited from Observation Team and analysis of 10 key requirements

S N	District	Former VDC	Ward No	Total house observed	Site Selection % complied	Shape & size % complied	Foundation % complied
1	Nuwakot	Kaule	8	5	100	100	100
2	Nuwakot	Kaule	9	5	100	100	100
3	Nuwakot	Bhalche	8	5	100	100	100
4	Nuwakot	Bhalche	9	5	80	100	100

The home is the basic requirements of a person. People build their house as per the financial capacity of the house owner. Houses should be safe to resist natural disasters. The minimum requirements to resist disasters are prescribed by the Government, which are the 10 key BBS messages. As per the sample analysis of each ward of Kaule and Bhalche VDCs; Site Selection, Shape and size and foundation requirements are 100% followed by the households. They have general knowledge about the site selection procedure, better shape and size of the house and foundation requirements. As the observation team asked them the questions about the above requirements, 100 percent of respondents provided correct answers which they are following in practice.

Total Houses visited from Observation Team and analysis of 10 key requirements

S N	District	Former VDC	Horizontal Band % complied	Vertical Band% complied	Roof % complied	Family requirements % complied	Uses of house % complied	Vernacular Architecture % complied
1	Nuwakot	Kaule 8	100	100	100	80	80	0
2	Nuwakot	Kaule 9	100	100	100	60	100	0
3	Nuwakot	Bhalche 8	100	100	100	40	100	0
4	Nuwakot	Bhalche 9	100	100	100	80	60	0

Likewise, the Horizontal Band, Vertical Band and Roof Construction are another important part of the house which can be observed in superstructure directly. These requirements are 100% followed by the households. Even they can explain the importance of Horizontal Band, Vertical Band and Roof construction.

Regarding the social issues the observations were done whether the house is according to family requirement, uses of house is done properly and Vernacular Architecture followed as per previous construction practices. The data explains in Kaule-8: 80%, in Kaule-9: 60%, in Bhalche-8: 40% and in Bhalche-9: 80% households' family requirements are fulfilled by the reconstructed house. In Kaule-9 and Bhalche-8: 100% of households are using the new house. In Kaule-8: 80% and in Bhalche-9: 60% households are using the new house. Likewise, the poorest part is the construction as per Vernacular Architecture. The reconstruction does not follow the traditional practices house construction. As the team asked to the households regarding this issue they respond that they have no idea and they follow the instruction of trained mason.

Findings

These are the representation of some of the good things and issues of private housing reconstruction in Nepal. The owner Driven Approach with Build Back Safer is a successful approach in reconstruction but a strong and dedicated approach should be from government as well as the beneficiary side also. 50% of the houses in Red Cross targeted VDCs are singled room houses and 20 % of the household are not using the reconstructed houses. Likewise, 35% of the houses do not meet the space requirement of the family. They are only oriented to receive the government grant. A detailed assessment is needed for the proper uses of houses as per their requirements.

Recommendations

Owner Driven Approach with Build Back Safer model is the successful in the reconstruction of Nepal. The similar approaches can be recommended for the community involved projects where the technical support should be provided and all the management aspects will be managed by the community. House owner will be more responsible for all other aspects and the support depends upon the progress made by the beneficiaries.

Conclusion

Through Build Change, ARC as the principal implementer of the Owner Driven Approach with the Build Back Safer concept became successful in the reconstruction of private housing in Nepal. The project team was well known and trained on this principal and they have nice skill on the implementation of this approach. In one word we can conclude the program became 'successful'.

Lessons learned

Principally Owner Driven Approach with Build back Safer concept is very innovative and result oriented approaches. Implementing this approach by the ARC the following lessons has been learned:

- This is participatory approach, if people's participation will be weak that means progress will be less. So that the hands-on practices and monitoring is needed.
- Robust monitoring system should be introduced for the continuous support of households.
- Training, orientations, demonstrations and, visits should be continuous in the field level.
- Regular Conversations / Communications / Eye openings / practices should be done to scale up the quality.
- Trust worthy environment should be created.

APPENDIX H – REFERENCES

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