A Brief Report on
Hands-on Support to Earthquake Affected Farmers

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Restoration of Lapse Thulo Khola Irrigation Scheme
Namdu, Dolakha

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Introductory

This report presents a brief account of the support provided to a small Farmers Managed Irrigation System (FMIS) in the district of Dolakha, one of the 14 most affected districts by last year’s earthquake. The report is prepared\(^1\) with a view to offer feedback to the private donors on the donation well-spent for sustaining the livelihood of poor farmers; and hence more focuses on qualitative facet of the support.

Much has been said as well as inscribed in media about the extensive destruction of structures and sizeable human casualty meted out by the Gorkha earthquake of 25 April 2015. But very limited information exists on the damage done by the quake to the irrigation infrastructures that offer livelihood to numerous farmers. In particular hundreds of FMIS scattered throughout the country might have experienced the impact of the quake resulting in thereby loss of livelihood opportunities. Not much has been done in the past one year to ascertain the magnitude of damage inflicted on irrigation schemes, let alone restoration livelihood, specifically on the small FMIS, by the earthquake.

Farmers Managed Irrigation System Promotion Trust (FMIST) last year made some serious efforts to restore a few of the affected FMIS. In the process FMIST supported Dhaap Irrigation Scheme, Sindhupalchowk and Kalleritar Irrigation Scheme, Dhading with the help of donations raised from the friends of FMIST. Most promisingly FMIST was able to enable the farmers of the supported FMIS to restore their system and cultivate rice the same season. This despite being a small assistance to the farmers, proved meaningful in their livelihood restoration.

FMIST effort has been an inspirational event and owing to this a number of private individuals with compassion have come forward to assist. One such group has been led by Stephanie Leder of IWMI and her friends, devoted private donors, who collectively put in Rs 226,000 for such assistance. Irrigation Development Division\(^2\) (IDD) Dolakha agreed to assist and facilitate in the selection of affected scheme and the program implementation. For operational modality, a very informal tri-partite memo of understanding was signed between Stephanie Leder (on behalf of donor), Sushil Subedee (FMIST) and Krishna Rijal (on behalf of IDD Dolakha) on May 27, 2016 which laid down work supervisory responsibility to IDD Dolakha while FMIST were to reserve the fund. Accordingly the present Lapse Thulo Khola Irrigation Scheme, Namdu was selected for rehabilitation.

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\(^1\) Prepared by Mr. Sushil Subedee (FMIST) with field assistance of Ms. Amrita Shrestha (Social Mobilizer at IDD Dolakha)

\(^2\) Mr. Krishna Rijal: Division Chief, IDD Dolakha
The overall goal of rehabilitation program was to contribute to ensure food security. More specifically the irrigation system restoration program intended to;

- Offer agreed financial and technical support to the Lapse Thulo Khola WUA to rebuild its irrigation scheme
- Enable the farmers of Lapse irrigation scheme to cultivate rice this season
- Assist farmers of the irrigation scheme to restore their livelihood opportunities

**The Irrigation Scheme**

*Lapse Thulo Khola Irrigation Scheme* is located in Namdu VDC, ward no. 6, Dolakha district and irrigates land in Chhaap Village. The command area has 150 households of which about 70% household are Dalits (untouchables) or DAG. The irrigation scheme is a fairly petite system serving a command area of 7.5 ha owned by 150 households. Thus on an average, each household has very small land holing of 0.05 ha. This further affirms the trend that Dalits or DAG are usually poor as they are ill endowed with resources. The irrigation system is therefore crucial for food security, particularly of the poor in the village. Additionally even the total land area is divided in khet (low land for rice) and Bari (upland); and for the farmers, irrigation first upholds for khet land. In this respect only 62 HH have 80 Ropani (4 ha) of khet land while remaining 88 HH have 70 Ropani (3.5 ha) of upland.

Despite being a quite old system (about 100 years3) Lapse irrigation scheme had not received much outside assistance in the past. Agricultural Development Bank Nepal some 22 years ago provided minor support on the basis of cost sharing arrangement of 60 to 40%. The water users' committee was formed to comply with Bank's requirement. Understandably due to the petite nature and scope of the system the scheme was never under the purview of district IDD. Until the earthquake the system was operational although the committee was not very functional.

**Earthquake Damage and the WUA**

"The earthquake virtually turned our canal system into shambles," sighed Rajan Nepali, the present Chairman of the Water Users’ Association (WUA). It destroyed the limited masonry as well as the earthen canal irreparably. Farmers tried 4-5 times to repair the canal system with the help of locally available materials like soil, brushwood etc. but were unable to convey irrigation water. Frustrated with the outcome, farmers held a general meeting in mid June 2015 and discussed on solution. They even approached local leaders for assistance but to no avail. Finally the VDC secretary advised them to contact district level Irrigation Division Office.

At the IDD, farmers were suggested to reorganize the already defunct committee, form WUA and register it. The potential beneficiary farmers accordingly created a new committee,

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3 As per the farmers
registered it in the IDD and submitted application for assistance. The new committee has 9 members including 3 females. Of the 9 members, 5 are from head reach, 3 from middle and 1 from the tail end of the canal system. The committee is led by Mr. Rajan Nepali. About 30 farmers have signed the request form.

The after-math of the quake had been harrowing and deplorable. As reported, due to destruction of the canal system the entire land in the command area remained fallow for the whole year. Likewise local streams and small sources dried up leaving no water for irrigation. Very few people cultivated maize in limited land area.

**The Rehabilitation Work**

Bulk of the rehabilitation works was done by the WUA farmers. At the outset the Irrigation Division Office Dolakha field assigned a Sub-engineer for damage assessment and planning with the farmers. The Sub-engineer provided technical guidance to the WUA members. Likewise the IDD facilitated the procurement of HDP pipe (450 m - 140 mm dia 2.5 kg/cm2) and its delivery up to district headquarters.

The WUA farmers on their part contributed labor for all field level works. The works included transportation of HDP pipes from district headquarter to the site, excavation of trench for pipe, laying and joining of pipe, filling of the trench after pipe laying etc. WUA mobilized the beneficiary farmers and reportedly a total of 80 farmers contributed labor for 1 day while 11 WUA members/farmers endlessly worked for 13 days to complete the work. With the completion of all targeted works on 9 July 2016, the canal operated successfully. Thus rehabilitation of the damaged irrigation scheme enabled farmers to return to rice cultivation by mid-July 2016. Rice is staple food in the area.

**Farmers' Say**

In order to field assess the response of farmers and the initial impact of rehabilitation works a group discussion was organized in the village on 11 August 2016.\(^4\) In the discussion a total of 15 farmer beneficiaries participated and shared their views. Furthermore telephonic interactions were also held with the WUA Chairman and a user farmer\(^5\). The overall reaction of farmers has been very positive or rather euphoric. As the earthquake had left the entire area fallow last year, apparently farmers were much pleased with the system rehabilitation which made rice cultivation possible this year. This tends to reflect a positive correlation between rice cultivation and farmers’ feeling of food security at village level.

Mr. Rajan Nepali, the WUA Chairman opined that the assistance had virtually salvaged the farmers. He expressed his gratitude to the private donors. With the assured and improved water availability now, Mr. Nepali feels that the farmers, apart from rice crop, can grow winter crops as well.

\(^4\) Field discussion was facilitated by Ms. Amrita Shrestha; Social Mobilizer at IDD Dolakha

\(^5\) Mr. Sushil Subedee had dialogs with Mr. Rajan Nepali: WUA Chairman and Mr. Chhatra B Basnet: Water User
Mr. Tahal Bahadur Basnet, yet another farmer, informed that he had his land at the head reach of the canal system. But even he was not able to cultivate his land last year. He iterated that he was much pleased to transplant rice this year due to restoration of the irrigation system.

Mrs. Devi Upreti a farmer from middle reach of command area was happy that now she did not have to be awake in the night, wait for rain or capture flash drain for rice transplantation. This year after the system was rebuilt she could transplant rice very easily.

Mr. Chatra B Basnet stated that the rehabilitation enabled him and all his fellow farmers in the village to complete the rice transplantation on time.

Annotations

Given that the memo of understanding was signed at the end of May 2016 and the task had to be accomplished by early July in order to enable farmers cultivate rice; the achievements have been rated quite satisfying. Due attention was accorded to beneficiary farmers’ feeling, emotions and expressions as well as field level outcome i.e. rice transplanted in entire area, while considering the effectiveness of the support. Some of other reflections are as listed below;

- Allocated fund was judiciously utilized to restore a needy irrigation system ravaged by the earthquake.
- Farmers’ participation is rated consequential. They willingly and actively contributed labor to rebuild their system.
- Lapse Irrigation Scheme has been operational since long and was functioning until the Earthquake struck. Farmers seem to be well aware of its direct bearings on their livelihood. Therefore in its all likelihood, the WUA can be expected to continue the sustained operation of the irrigation system.
- Discouragingly the scheme restored under present support was fairly small irrigation scheme with a service area of 7.5 ha only. This presumably may not epitomize an archetypal FMIS. But essentially this represents those smaller schemes that are largely scattered throughout the country and contribute to livelihood support of poor farmers in rural Nepal. Viewed from this perspective, scheme selection is considered pertinent as the major potential beneficiaries are sub-marginal farmers.
- Despite being a smaller system, the irrigation scheme serves a larger community of 150 households which is not only poor and vulnerable but also disadvantaged due to social status. So the investment in rebuilding it is also socially justifiable.
Photo Gallery

Immersed Pipe Canal
Photo Gallery

Command Area

Land Prepared for Rice

Rice Transplanted

Social Mobilizer discussing with Beneficiary Farmers
WUA Chairman at the IDD Office Dolakha