

Ministry of Population and Environment (MoPE)
Department of Hydrology and Meteorology (DHM)
Community Based Flood and Glacial Lake Outburst Risk Reduction Project (CFGORRP)
Field Visit Report

Team Member: Govind Acharya, Technical Advisor

Overall objective of the field visit/ mission:

- To monitor recently accomplished gabion revetment.
- To plan the construction activities for sediment control measures and safe evacuation centres to be undertaken during 2016.
- To plan the sediment control measures in Ratu upstream
- To list the status of currently established community based early warning system
- To evaluate the possibility of community engagement for the implementation of structural measures (embankment) in Saptari

1. Key activities carried out based on the travel itinerary :

Date/ Day	Districts/VDCs visited	Persons/ Groups interacted with	Description of Field visit Program/Activities
Day 1: 21/02/2016	Jaleshore & Sarpallo, Mahottari District	SDE-PEP/DWIDP, communities at Sarpallo, DPO-Mahottari and DPC	<ul style="list-style-type: none"> ▪ Travelled to Jaleshore Mahottari from Kathmandu with DPC, AFO and MEO. ▪ Interacted with Mr. Manohar Kumar Shah – SDE, PEP/DWIDP to update the project's activities and 2015 accomplishments in Mahottari district including the upstream sediment control measures in Ratu River. In the meeting, Mr. Shah stressed on the need of coordination between DWIDP and the project to avoid duplication and the project team assured him that the project would continue regular coordination with DWIDP to ensure the sustainability of project's interventions. The sediment monitoring protocols developed by the project was provided to Mr. Shah. ▪ Travelled to Sarpallo and interacted with local communities on the implementation of additional sediment control measures and construction of safe evacuation center to be built at Sarpallo.

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			<ul style="list-style-type: none"> ▪ Inspected rain and stream gauges at Sarpallo. The quality of work in the rain gauge station was not found to be satisfactory because the barbed wire was not properly tightened, doors and poles were broken. ▪ Interacted with communities about the sustainability and importance of CBEWS. Discussion was held on their ownership in the project's interventions including CBEWS. The communities and volunteer gauge readers have vital role in collecting and disseminating flood related information and also in the operation and maintenance of CBEWS equipment. ▪ Night Stay at Gautam Hotel, Bardibas
Day 2: 22/02/2016	Bahun Mara, Kalapani Dhanusha and Bardibas in Mahottari Districts and Tulsipur & Lalpur VDC in Siraha District	VDC Secretary-Tulsipur in Dhanusha, Local Communities in Ratu and Gagan watershed, Gauge Readers, DPOs and DPC	<ul style="list-style-type: none"> ▪ Interacted with Mr. Nawa Raj Poudel-VDC secretary and local communities at Tulsipur VDC of Dhanusha on sediment control measures to be constructed in Bahunmara Tulsipur 6, Dhanusha. Design of the sediment control measures for Korung Kholsi, a tributary of Ratu River was briefed to the VDC secretary and to the vulnerable communities. Mr. Poudel expressed his strong commitment to support the project in implementing its interventions in Ratu upstream and he further requested the communities to work with the project ensuring high quality and maintaining all required documents and book of account in a transparent way among the them. ▪ Inspected the stream and rain gauges established at Kalapani and Bahunmara. The quality of works in these stations were

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			<p>observed at satisfactory level.</p> <ul style="list-style-type: none"> ▪ Visited CBEWS and CBEWS sites at Bardibas Bridge along East-West Highway. The CBEWS and CBEWS were found to be working well. Volunteer gauge reader informed that he used to collect flood related information from the station at Bardibas and upstream gauge reader and disseminate to the nearby communities and downstream gauge readers. ▪ Travelled to Siraha. ▪ Inspected the quality of work in the rain gauge located near the Gagan bridge along East West highway. The quality of work for rain gauge installation was found below the acceptable level. ▪ Travelled to Tulsipur VDC in Siraha to see the quality of project's interventions in the VDC. The vegetations planted along the recently constructed embankment stretches in the VDC were found to be growing not properly. This is probably because (1) there were inadequate supervision and involvement from the communities and (2) there was a prolonged obstacle in the vehicular movement in Terai area leading to lack of monitoring from FCO and PMU in this period. About 30 m long gabion revetment stretch and two spurs were partially damaged due to flooding events occurred during 2015 monsoon for which necessary maintenance works are to be undertaken. Condition of rain gauge station was not satisfactory because concrete poles are cracked; barbed wires were not properly

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			<p>tightened and door was broken.</p> <ul style="list-style-type: none"> ▪ Interacted with the local community to illustrate the sustainability aspect of project interventions and importance of early warning systems and plantation in flood risk reduction. ▪ Night Stay at Maruti Hotel, Lahan
Day 3: 23/02/2016	Hadiya and Jogidaha, Udayapur	VDC Secretary- Jogidaha Udayapur, Local communities of Jogidaha and Hadiya, Gauge readers, DPO- Udayapur and DPC	<ul style="list-style-type: none"> ▪ Met with Mrs. Sheela Thapa Karki, chairperson of VDRMC and VDC Secretary of Jogidaha. Project's interventions, working modalities and approaches were briefed to her because she was recently transferred to Jogidaha to work as VDC secretary. ▪ Undertook joint field monitoring visit with Mrs. Karki in Jogidaha. In the VDC, the newly constructed embankments were found in good condition but the vegetations planted in the rear side along the embankment were not growing well for which special attentions have to paid. Interacted with local communities on importance of plantation and early warning systems in flood risk reduction. ▪ Travelled to Hadiya to monitor the field based interventions in the VDC. Field varification of the proposed embankment was undertaken for the three sites out of which one proposed at Mushahari tole Dhunga was cancelled because the site was found to be inappropriate. ▪ Workmanship of the two raingauge stations at Hadiya and Jogidaha was not at acceptable level. Their condition was not different with the condition of the statoins at Mahottari and Siraha.

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			<ul style="list-style-type: none"> ▪ Condition of vegetation was also consistent with that of Mahottari and Siraha indicating that growth of vegetation planted in the area did not meet our expectation. ▪ Night Stay at Kanchanjangha Hotel, Gaighat
Day 4: 24/02/2016	Udayapur, Rajbiraj and Dighwa of Saptari	DSCO-Udayapur, DSCO-Saptari, local communities-Dighwa, DPO-Saptari and DPC	<ul style="list-style-type: none"> ▪ Interacted with Mr. Indra Prasad Adhikari, DSCO-Udayapur. Mr. Adhikari revealed very positive response towards project interventions and community mobilization. He also presented his problem in supervising all ongoing interventions under DSCO because of non-availability of operating vehicle in the office for which he requested the project for some sort of financial support for procuring motorcycles. ▪ Travelled to Rajbiraj, Saptari. ▪ Met Mr. Bishnu Bahadur Bhandari, DSCO-Saptari. Mr. Bhandari assured to provide all kind of support for the success of the project. ▪ Travelled to Dighwa Saptari and interacted with local communities to assess the enabling working environment for the construction of embankment along with gabion revetment in Mushari tole Dighwa 8. Some of key members of the local communities informed that the river changed its course to their private land from its original flow path and they would support the project to construct the sediment control measures only if the measures would divert the river flow to its original flow path. ▪ Inspected the rain gauge stations at Dighwa 2. The quality of work at the station was noticed to be at acceptable level.

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			<ul style="list-style-type: none"> ▪ Travelled to Lahan and night Stay at Simrik Hotel, Lahan
Day 5: 25/02/2016	FCO and DWIDP Lahan	Engineer DWIDP – Lahan, AFA, DPC	<ul style="list-style-type: none"> ▪ Visited DWIDP divisional office at Lahan to interact with Engineer Mr. Dev Narayan Mandal. Mr. Mandal shared the information related to the DWIDP activities in Khando, Gagan and Triyuga for the current fiscal year 2072/73. We shared the CFGORRP interventions in Gagan, Khando, Hadiya and Kong and briefed the working modality and approach towards flash risk reduction in Churia originating river systems. The sediment monitoring protocols was provided to him and the importance and main highlights of the protocols was presented during meeting. He assured for regular coordination and cooperation in implementing the project's interventions avoiding all kinds of duplication. ▪ Discussed with DPC on the implementation of project's interventions in Siraha and Saptari. DPC was asked to undertake the design and cost estimate and prepare contract document to construct embankment and gabion revetment along with spurs in Gagan by temporarily mobilizing the Saptari DPO. ▪ Conducted a meeting between PMU monitoring team comprising of TA, AFO and MEO and FCO team comprising of DPC and AFA to share the monitoring visit reflection. The monitoring team highlighted the need of frequent FCO monitoring for the sustainability of project interventions; poor workmanship at rain gauge stations and lack

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			<p>of proper monitoring on the plantation work undertaken on the rear side along the entire embankment stretches of four river systems in the three districts (Mahottari, Siraha and Udayapur).</p> <ul style="list-style-type: none"> ▪ Night Stay at Simrik Hotel, Lahan
Day 5: 25/02/2016	-	-	<ul style="list-style-type: none"> ▪ Started at 10 am from Lahan for Janakpur to catch the flight to Kathmandu and reached 4:15 in Kathmandu

2. **Major observations/findings made from the field visit/ mission:**

- Followings are the major achievements till the time of field monitoring
 - The construction quality related to embankment and gabion revetment was found to be satisfactory.
 - Quality of works related to CBEWS was also observed in good condition except in rain gauge stations. Quality assurance in the rain gauge needs much improvement. In most cases, stream gauge plates flushed in the concrete posts were broken and taken away.
 - Quality of works related to plantation did not meet the requirement. Plants were not properly grown due to various reasons such as inadequate supervision from communities and inadequate monitoring from FCO.
 - Coordination meetings with different governmental organizations such as VDC, DWIDP, DSCO were supposed to be very beneficial in implementing the project's upcoming interventions in a sustainable manner.

3. **Key Recommendations and conclusions:**

- FCO Lahan has been undertaking field monitoring activities. **However, it should increase the frequency of visits for close monitoring of field activities including interactions** with communities etc. More such visits are required to Saptari to ensure community engagement and the quality assurance.
- Locally available and suitable vegetation species are to be planted in the prjobject area as bioengineering measures.
- Workmanship in the rain gauge stations is to be improved significantly by the service provider under the close coordinaton and consultation with FCO Lahan and the respective DPOs.
- *An efficient and effective effort has to be made for the construction of structural measures in the downstream site i.e. downstream of under-construction bridge at Hulak Road.*

4. Outputs from the Field Visit/ Mission:

- Quality of entire project interventions were assessed.
- One site for sediment control plan in Ratu upstream was identified and local communities along with VDC secretary were interacted in terms of working modality, approach, fund flow mechanism and quality assurance.
- Different district level officials were interacted for sustainability aspects of the project's interventions.
- Community level extensive interaction was conducted at Sarpallo.

5. Likely Follow-ups that might be necessary after the visit (What Next?):

- Frequent monitoring and regular follow up will have to be done as per need for quality assurance on implementation of bioengineering measures and rain gauge stations and other project's interventions.

6. Major changes observed, if any, since the last field visit made:

- Community based early warning systems have been installed in the five river basins.
- A large number of communities in Mahottari, Siraha and Udayapur has been covered by the flood risk reduction initiatives. People have felt that they are now safe from flood risk. In some cases, they have **reclaimed their lost land** due to previous floods and started cereal farming.

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