



Community managed rudimentary early warning system

Location:

Kothiya, South Mahishi (Bihar, India)

Partners:

SEEDS, Wetlands International, RCCC

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Task Force members of Kothiya, disseminating flood warning through flag & trumpet

Photo credits-SEEDS Team (Sarika Gulati)

Community engagement of PFR-SEEDS Team for builds knowledge about key elements of Early Warning System

Photo credits- Dushyant

Task Force members demonstrated innovation about rudimentary early warning system on Koshi River through the help of PFR Partners SEEDS in our Panchayat.

I am happy for Panchayat fund leverage in establish CM-REWS before monsoon of 2018.

Through the ews 27 villages people get benefited in 2018.

Panchayat Mukhiya Mr. Naresh K Yadav (South Mahishi) Mob- +91 9430089563

Floods in Bihar are a recurring feature which were once welcome, depositing fertile fluvial sediments. The state is also one of the least developed in the country, over the years due to mal-development practices, landscape fragmentation and environmental degradation.

Every year during the monsoon season, the main rivers cause serious damages, and often loss of lives and livestock. Of the total geographical area 73.06% is prone to flooding. Floods have claimed over 9500 lives since 1975, over the last 3 years have affected 26.2 million people and claimed 1,000 lives with property damage from floods in 2015-16 Rs 119 crore/ 15 million Euro, crop damage in 2015-16 worth Rs 519 crore/ 66 million euro

Due to Bihar's proximity to the mountainous region in Nepal, rivers naturally drain through the landscape. During monsoons or heavy rainfall, the water flows increases in the rivers. To protect infrastructure, people and to increase area under cultivation, the rivers were embanked since the 1930s. Further upstream dams have been created for electricity. These embankments and dams have further exacerbated the problem. Engineers who are in charge of the dam in Nepal, open the dam's gates once the reservoirs fill up which can cause flooding down river in Bihar. Natural infrastructure, primary wetlands would act as flood buffer but due to natural drainage being affected due to embankments, these have been degraded or converted for agriculture. There is very little protection for the communities once the embankments breach.



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Task Force Members disseminating third warning through three corner red flag for evacuation from village to safe place
Photo credit-SEEDS Team

This is the first time in our life, we get flood information through sms before 22-24 hours. In the morning of 13th July 2018, I gone for spray fertilizer in our paddy crop & irrigation, then as per schedule I got sms from Mr. Mohan, (gauge reader of Kothiya) river water is rising in chatara and its a warning 2, just I stop and inform to others farmer, they all also not start irrigation and spray work in corp. This system save our money from flow in water...

Mr. Kishor, Farmer and ward Member Birbar

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Along with restoring wetlands, information on climate and corresponding early warning is equally important in long-term risk reduction, but it needs to be tailored to localized context, cultures, languages and local priorities. It needs to reach communities where often; isolation and under-development are the norm.

Currently there is no Early Warning System which has linkages upstream and downstream in Bihar either by the Government or any NGO's, despite the fact that Early Warning can save 90% of lives and livelihoods.

A community-based early warning system was established in ward 2 of Kothiya village, Saharsa district situated 100 meters along the Koshi river by PfR partner SEEDS, from resources leveraged by the panchayat. However, the information about the rise and fall of the Kosi river water level cannot be accessed. The task force members of Kothiya village, were capacitated to monitor Koshi River data through a river gauge installed by PfR in the village and upstream river flow data from Chatara Nepal, is now accessed using the website www.hydrology.gov.np and regular phone calls with dam authorities upstream. This information is shared with community members of 20 villages.





Photo caption- River gauge data monitoring by task force for share with Panchayat and people's
Photo credit- SEEDS Team

Mrs. Shantee Luxmi Chowdhary, Mukhiya Aarapatti (Panchayat leader)

Early warning is most important for us and rudimentary early warning system is best example for save lives and livelihood from flood. We goted daily water level data from task force members and do plan as per trend of water. Thanks to PFR & SEEDS for provide their support for establish early warning for me and from me.

In 2018, the village had two floods but no lives were lost and household items were not damaged. Local civil society can play an important role in helping disseminate information on risks and mobilize local actions accordingly. The protection of lives and livelihoods through timely climate information and early action, can be significantly enhanced by a forecast-based financing mechanism. A successful intervention, the community now has enough capacity and knowledge to save their lives and livelihood from floods. 20 villages and more than 27000 peoples have access to early warning now.

Villagers now make plans as per the water flow trends of the river. Capacity building of task force members is needed to deepen their knowledge and to understand climate risks and ecosystem based DRR measures to adapt to the changing landscape.

