

Warning Signs

An Early Warning System Installed in Bardiya to Prevent Loss during Floods in Exemplary

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WITH the start of the monsoon, fears of the people residing in waterfront areas begin to increase. Every year the settlements nearby the rivers suffer from significant loss of property and physical displacement, caused by unprecedented flooding. While settlements in a majority of riverfront areas across the country continue to suffer from monsoon-led natural disasters, a community residing near the Babai River in Bardiya, Balapur, is beginning to breathe with a sigh of relief after the installation of an Early Warning System in their village.

Balapur village touches the Babai River in three directions and the river flows approximately one and half kilometers away from the village. During the rainy season, the swollen river would enter Balapur from Shanti and Babai settlements. "It was very difficult to live in this village. It was in 2052 BS (1996 AD) that the flood drowned my three goats, cows, and all the food stored in my home. The flood also washed away my paddy plantation. I could not even protect documents important to me and the materials in my house. The whole village was waterlogged," says Tihar Bahadur Chaudhary, a local of the village. The Babai River again invaded Balapur in 2008 and swept away Sabit Kumar Chaudhary's home. His four goats, food grains, and other physical properties were lost in the flooding. "I could save nothing," he says in retrospect, "We were hapless."



fig: Upstream river gauze station visited by communities and district administration officials in Chepang, Bardiya.

People in Balapur were compelled to live in uncertainty. However, when an organization came along and installed an Early Warning System in the village, the people of Balapur cheered up. The Department of Hydrology and Meteorology (OHM) under the Ministry of Science and

Technology has established a water gauge reader (equipment to scale the water level) in the upper station of Babai at Chepang. The staff working for OHM, positioned in the upper station, observes the water level. If they find the water level rising dangerously, they quickly inform the police, media, and rescue officials and the communities.

After the installation of this System, Balapur dwellers get information about a flood before it enters the village. The System also allows the residents to assemble their important documents and other properties and move swiftly to a safe place. No sooner the flood enters the village; the people are informed by ringing sirens. Additionally, surrounding communities have formed disaster management committees at the local level. The committee warns villagers, disseminating information about the flow of a flood, using microphones. The committee also prioritizes the safety of pregnant women, disabled people, and children. The committee members are trained in flood awareness and preparedness procedures. Moreover, there is a separate rescue unit under the disaster management committee, responsible for immediate rescue operations. The system is solely installed with the full participation of communities and therefore the community owns the system and maintains it. Interestingly, the communities are able to operate the System on their own as the project has already built their capacity with various trainings.

Sitapati Tharu says, "If the observer in the upper station finds the water level rising to a crucial level, we can hear the loud sirens in the village. If the siren rings for the first time, we become alert and start packing important documents, property, and food and prepare to leave for a safe location. If we again hear the sound of the siren we then immediately move to a safe place. "The disaster management committee, upon notice of the second siren sound, prepares to shift the pregnant women, disabled, and children to the safe areas. As soon as villagers hear the third round of siren sounds, all of them run away surging their livestock on and carrying other materials to safe places.

Thanks to the project, mitigation infrastructure such as culverts and roads are in place to allow people to move quickly during floods. The project also organizes mock drill practices to build the capacity of communities. The mock drill is a rehearsal to make communities alert on how should be prepared at the time of the flood.

It is learned and observed that The Early Warning System installed in the Balapur, Bardiya has been a proven and highly effective guard against floods and flood-led natural disasters. If the system is promoted by the state in flood-prone areas across the country, settlements close to riverfront areas will not face untimely deaths and loss of property.