

# Assam Disaster Risk Reduction

A raised kitchen garden protects vegetables from flood waters.  
*Photo courtesy of BGSS*



## CRS' Response, Recovery and Resilience (R3) program

Cyclones, tornados, drought, cholera and devastating crop disease are among the hazards facing communities that CRS has been helping in Guatemala, Nicaragua, Haiti, India, Bangladesh, Vietnam and Indonesia. In 2013, CRS launched the R3 program to reduce underserved vulnerable communities' risks to multiple natural disasters and build their resilience. A strong dimension of all of these projects was to better understand how people perceive their own resilience. Disaster management and resilience plans developed by communities, households and farmers detailed ways to mitigate and respond to disasters.

# Assam Disaster Risk Reduction

This project helped flood-affected communities increase their resilience and disaster preparedness by assisting them to develop their own plan of action: identifying the hazards they face, recognizing their capacities to manage risk, and planning the actions needed. It also facilitated strengthened relationships with government bodies responsible for disaster risk reduction and emergency response. Communities shared their resilience plans with these bodies to collaboratively implement their DRR activities.

## PROJECT OVERVIEW

The project worked with 6,593 people (50 percent women)—or 1,396 households—in 11 villages. These communities are made up of a variety of religious groups, scheduled castes and scheduled tribes,<sup>1</sup> and earn their living primarily as daily wage laborers and through small-scale farming for self-consumption. Livestock provide a secondary income source. The average monthly income ranges from 2,000 to 3,000 rupees (US\$30 to US\$45).

**6,593**

**PEOPLE FROM FLOOD-AFFECTED FAMILIES  
DIRECTLY BENEFITED FROM THE PROJECT**

Assam is one of the most highly flood-prone states in India and, although the riverine areas have always flooded, the extent of the damage has increased significantly in recent years. Several factors contribute to the recurrent floods: Assam's location at the base of the eastern Himalayas, the annual monsoon, accelerated rates of erosion, deforestation, intense land-use pressure, and high population growth (especially in the floodplain belt).

Dhubri district has experienced flooding every year for the past 8 years, and 24 percent of the district falls into Assam's 'very high' or 'high' flood hazard category. Although the flooding is often slow onset, it has damaged more than a fifth of crops in the district annually. With a population of 1.9 million, Dhubri is also one of the more populated districts of the state.

In the past, government DRR plans have not extended to the community level, and the government has lacked the funds, human resources, and capacity to reach remote areas to prepare for or respond to disasters. Communities were unaware of their rights to access government services and lacked the skills to advocate for help. During flooding, they lacked access to safe drinking water, resulting in increased cases of diarrhea. Communities that depend on agriculture faced crop loss and limited options to protect their crops and adapt to increased flooding.



## AT A GLANCE

<b>Project</b>	Assam Disaster Risk Reduction (Assam DRR) Phase II
<b>Location</b>	Dhubri district, Assam state, India
<b>Duration</b>	January 2015 - May 2016
<b>Partner</b>	Bongaigaon Gana Seva Society (BGSS)
<b>Funder</b>	CRS private donor
<b>Budget</b>	\$130,638

Villages experienced acute food insecurity during flooding and livestock suffered fodder scarcity and disease.

All project decisions were made in consultation with the community. Participatory Learning and Action exercises on resilience and DRR—including exercises on historical disaster trends, traditional coping mechanisms, community mapping and social mapping—were carried out with community and government representatives to outline priorities and needs for the plan of action. These exercises were held separately for men and women to ensure that the issues were understood from both perspectives, and to allow people to speak freely. After the plans of action were developed, the community submitted them to the local government bodies—Panchayati Raj Institutions, or PRI—for implementation.

1. The Constitution of India recognizes scheduled castes and scheduled tribes as various groups of historically disadvantaged indigenous people.

Government schemes available to support the project's plans of action were defined in consultation with the community and government. PRI members and community leaders were trained on the relevant government schemes and awareness of these schemes was raised in households through visits.

The project worked closely with the Agriculture and Veterinary Department that provided training and inputs to the community for flood-resilient agricultural and livestock management practices.

## RESULTS

Due to the slow onset of the floods and because some communities are only accessible on foot or small motorbike, Dhubri district has received little media attention. Yet the flood damage is extensive and there is little support to prepare for, mitigate or respond to disasters. Because CRS and its partner have been the only organizations working on DRR in the district, there was a lot of appreciation and support from the government.

The Joint Secretary and State Project Coordinator of the Assam State Disaster Management Authority expressed appreciation that CRS had approached and discussed with government officials—at the state, district and block levels—the targeting (which areas to focus on), the needs of the community and possible project activities. She also said that the ASDMA had directed district- and block-level officials to cooperate fully in any activities that CRS and its implementing partner undertook in the targeted villages.

Learning exercises helped the implementing organization, BGSS, and the community, to identify priorities for increasing resilience, which led to the development of the village plan of action. The DRR issues prioritized by the community were the availability of safe drinking water, low-cost concrete houses, toilets, roads and bridges, irrigation facilities, improved seed varieties, and livestock fodder and treatment. Most of these were achieved by raising community awareness of how to access government schemes and assisting access to these schemes (help applying for low-cost houses, low-cost toilets and Below Poverty Line identity cards<sup>2</sup>).

Communities now feel they are capable of approaching government officials for support to implement their plans of action. Farmers now have contact with the Agriculture and Veterinary Department directly for technical support and other inputs. Livestock vaccination camps held before and after floods resulted in there being no deaths among livestock last year and little disease.

Messages on the safe handling of drinking water and water treatment, and the construction of raised tube wells to improve access to safe drinking water were cited

These included training on cultivation of fodder grass, cultivation of a submergence-tolerant paddy variety (Swarna sub 1) and a short-duration paddy variety (Luit), storage practices for black gram and paddy, and feeding practices for goats and cattle, as well as the provision of vaccines and medicines for livestock during animal health camps.

Material inputs (seeds, fertilizers, planting materials) were provided by the project following recommendations from the Agriculture and Veterinary Department.



The raised tube wells will give communities potable water during floods for years to come. Photo by Geeta Mazumdar/CRS

by community members as critical to their increased resilience. The community believes that the wells will enable them to access safe drinking water during floods for years to come. The raised kitchen gardens facilitated by the project have ensured the availability of vegetables during the flood season.

The trainings and demonstrations on improved crop varieties and agricultural techniques, and awareness raising on improved livestock management practices have provided information to improve long-term practices to protect livelihoods. The project has also taken up some of the infrastructure improvement activities identified in the plans of action. Consultations showed that improved infrastructure like roads, bridges, culverts, embankments and community halls, seemed to be key to how people perceived their resilience because they meant improved accessibility to essential services during flooding.

## UNINTENDED RESULT

An unintended positive result of the project is that one of the project villages has been taken up as a model village by the District Disaster Management Authority. Government officials are now aware of the kind of DRR work that is being done in the villages and are happy with the quality of the plans of action developed by the communities. They are willing to adopt a similar process of developing village action plans for other villages, to extend DRR initiatives to more communities.

2. A state-issued ration card used for buying subsidized food and fuel.

## LEARNINGS

Most of the DRR actions identified by the community as priorities for resilience are those that the community can perform by accessing government schemes and programs, for example, toilets, concrete houses, irrigation, improved infrastructure like roads and bridges, livestock treatment, and improved seed varieties. Therefore improving access to government schemes and services is an effective component of increasing community resilience. Future projects could also promote savings groups to help build community assets like raised tube wells, toilets and roads. Savings groups among women could help them to manage household assets like kitchen gardens and livestock.

The strength of the community to prepare for floods lies in their ability to reinforce or repair their houses, keep food items and valuable documents safe, and access government-supported houses and low-cost toilets. However, the community was unsure who was responsible for following up with the government for improving community-level infrastructure. Future projects could promote and strengthen community groups (disaster management committees, farmers clubs, etc.) to address who will take the lead once the project ends.

For the community to maximize the sustainability of activities beyond the end of the project, training for selected activities (e.g., improved cultivation techniques) and occasional technical advice will be needed. Government-level input of this technical

advice was preferred by the community so government resource personnel were used in all the project's training programs.

Farmers said that it was difficult for them to remember and implement all of the new agricultural practices. Future efforts could ensure that only a few practices are introduced during one training or one season.

While the participatory approach had many benefits for ensuring activities were well designed, community members expressed impatience with the number of discussions and exercises, and wanted to see more tangible output from the project team. A slower roll-out of the participatory tools could help avoid meeting fatigue. The project team should balance the participatory work needed with the community's desire to see results.

## SUSTAINABILITY

Activities such as growing vegetables in raised kitchen gardens will continue after the project ends as these were shown to meet the immediate needs of families during floods. Also, families will maintain contact with the veterinary department to ensure their livestock are vaccinated as they saw the benefits of doing so. Communities will also continue to access government support for the construction of low-cost houses and toilets.

## COMMUNITY VOICES

According to the community, the DRR project activities have increased community and household resilience. For items such as improved housing, toilets and safe drinking water, respondents said that increased awareness of government schemes and assistance establishing linkages with local government helped them access such schemes.

For activities for which the project did not provide direct support—repairing roads, bridges and soil erosion—women felt confident in approaching government officials for help improving their resilience

to disasters. In the village of Noonmati Part 2, women said: "We as individuals [without help] cannot do anything, build roads or bridges, but in the last year through different project activities and especially through awareness of the different government schemes, we have built the confidence and capacity to approach government officials and seek their support."

Similarly, men from Noonmati Part 2 said that by engaging in project activities and through orientation to government schemes, they had built the confidence to approach government officials for support.

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## CATHOLIC RELIEF SERVICES

Catholic Relief Services is the official international humanitarian agency of the United States Catholic community. CRS' relief and development work is accomplished through programs of emergency response, HIV, health, agriculture, education, microfinance and peacebuilding. CRS eases suffering and provides assistance to people in need in more than 100 countries, without regard to race, religion or nationality.