

Flooding, Risk and Resilience in northern Bihar, India



PERENNIAL RISK

Floods are nothing new to the people of Bihar, India's most flood-vulnerable state. Every year the monsoon brings extensive local flooding and waterlogging, much of it related to the large rivers that cross the region including the Ganges and the Kosi. The Kosi barrage and its associated network of embankments have reduced these risks by diverting the river west and harnessing water resources for irrigation use. Despite this, 15 major flood events related to poor maintenance have occurred since their construction in 1963.

The most recent major flood event, in August 2008, was the most devastating. It inundated 3,700 km² across five districts, destroying 340,000 hectares of crops. Floodwaters up to 25 metres deep were recorded in some areas. The eastern half of Supaul District accounted for about 73% of this agricultural loss and continues to struggle to recover its productivity. A major legacy of the floods has

been significant sand deposits which overlay topsoil of up to 6-7 metres in some places. These areas are now uncultivable and, even at less severe levels, have perversely left the area more vulnerable to drought.

A NEW APPROACH

In 2011, Christian Aid partner Churches Auxiliary for Social Action (CASA) initiated the Bihar Climate Smart Disaster Risk Management (CSDRM) Project to address the post-flood recovery and development of marginalised dalit and tribal communities in Supaul District.

Unlike previous top-down interventions, the project sought to understand the impact of flooding and other risks from the community's perspective through a participatory community planning process using Christian Aid's Participatory Vulnerability and Capacity Assessment (PVCA) tools. These risk-based approaches differ from conventional needs-based approaches in a number of ways.



RISK-CENTRED & COMMUNITY-LED

Facilitated by CASA, the assessment process is community-led and takes exposure to risk as the starting point. This approach explicitly seeks to include the most vulnerable and marginalised people from the outset. Assessment leads to planning with an emphasis on what the community can do with its own resources, leadership and capacities to address vulnerability. This includes actively seeking out relevant local public services that should be available but may not be accessible to community members.

INCLUSIVE

An important factor in the process is recognising the diversity within a community – different households have different levels of wealth, assets, skills and knowledge which need to be recognised in the community action plan. Furthermore, men and women are exposed to risk in different ways and therefore it is important to consider issues of gender and gender equality. A community action plan cannot address all risks simultaneously, so prioritisation is vital and subjecting the plan to regular community review then leads to further action.



CASA facilitated 124 PVCAs and community action plans in villages across nine Gram Panchayats. They used a number of participatory tools to enable communities to understand the risks they face and ways to

address these risks including village meetings, transect walks and participatory mapping.

Using their observations, communities drew maps identifying: areas that posed risks - mainly to their safety and security; the location or state of vulnerable homes – for example, close to the river or poorly constructed; who lived in them - for example, the elderly, long-term sick and young; how many people lived there; and in some cases what capacities were available in the village. The motivation for the process was also clearly described. In Rampur village, for example, the community identified that the 2008 Kosi flood had exposed the lack of any plans or mechanisms to respond to such events such as the lack of an operational early warning system, an evacuation plan, the location of the most vulnerable, or a livestock plan.

The process also identified 18 further risk categories. These included increasing severity of drought over the past five years, isolation and lack of transport infrastructure which limited their access to health and educational facilities. This was also linked to their lack of access to government schemes which community members are entitled to but are either unaware of or specifically denied.

Health risks, especially relating to hygiene and increased vulnerability to waterborne and respiratory diseases, and lack of health facilities were also identified. Storms hailstorms and strong winds were understood to cause significant local crop damage and destroy housing that had become more vulnerable following the 2008 floods as they had largely not been reconstructed. Livestock security, especially the need for better access to veterinary facilities and vaccination services, was another risk cited, while a lack of land title exposed most community members to arbitrary landlord decisions, as they are share croppers.



THE POWER OF ADVOCACY

One of the most significant features of the project has been the community's emphasis on advocacy for access to local government services. This has involved identifying, targeting and applying to various government schemes for which community members are eligible. These include the rural employment guarantee permit (NREGA) which guarantees



the poorest 100 days of work per year; widow's pension; the Indira Awas Yojana scheme for permanent shelter; the handicapped certificate which entitles the holder to a monthly allowance of R200; the Prime Minister's

road development scheme; Integrated Child Development Service (ICDS) centres; primary schools; agriculture and animal health advisory services; and tree planting.

ACHIEVEMENTS

Some success has been achieved. Jiwachpur community formed a vaccination committee that has achieved 25% livestock vaccination coverage so far. Likewise the community were able to lobby the local teacher to take on an ICDS centre in their village. At first, the teacher refused, but because they understood their rights, with CASA's support community members were able to strengthen their lobbying and secure this resource for their children. Food rations from government have yet to arrive.

Applications for road construction, a primary school and a flood shelter are currently still pending with no indication of government commitment and promised work on housing renovation has still not materialised.

In Rampur, the community has submitted applications for handicapped certificates, an ICDS centre and employment under NREGA but they are still waiting for the outcome. In Khalikapur, the action plan has led to the renovation of 65 houses. However, having planted 100 trees so far using their own resources as part of their plans to plant 5,000 trees, the agreed Government support has not yet materialised.

DISASTER MANAGEMENT

A second focus has been the establishment and/OR capacity strengthening of disaster management taskforces (DMTF) in each community. Following training, separate teams were created with roles and responsibilities for early warning, rescue, first aid, relief, shelter, hygiene and livestock. Community members also learnt how to make equipment such as floating aids from local materials (bottles and tractor tubes). They understand the need to pack sufficient dry food supplies for at least a week and have identified where vulnerable households are located in order to effectively support their evacuation.



Women highlighted that the most useful learning coming out of the DMTF intervention for them were the new strategies for dealing with disasters and the importance of being more organised to respond.

Their experience of the Kosi floods in 2008 and the lasting impact it had on their livestock, property and health are a reminder of the importance of this new knowledge.

STRATEGIC SUPPORT

Material support has been limited given the empowerment focus and the imperative of increasing dalit communities' access to those government services that they are entitled to receive. However, some strategic support has been given. Self-help groups have been established to increase women's access to and management of savings and credit for members. This has been both in-kind, in the form of building up small rice stores to assist members in time of food crisis, or in cash.

'We save 1kg of grains and store it in the home of one of our members. We also collect 10 rupees from every member as emergency savings' – Durgi Devi, Lalganj

In Jiwachpur, self-help group members save 10 rupees per week. Before the group was formed, if women needed cash urgently, they would go to a money lender who would charge 100% interest. With their savings, they can now help each other out in times of emergency and loan money out at the lower rate of 2% interest per month. In order to lend money, a woman has to complete an application and the whole group then discusses and decides who should be prioritised to receive support. All 12 members have to approve any application and the money is given out in front of all members. To date, two loans have been approved to assist members with medical expenses.

ADDRESSING CLIMATE CHANGE

Other activities have included the establishment of demonstration plots for farmer groups to conduct their own on-farm trials of new wheat, rice and maize varieties and the trialling of a smokeless chullah (stove) which may be scaled up across 800 households at a cost of just 300 rupees per stove.



CHANGING LIVES

Although the project is still at an early stage, some positive impacts have been reported among the 124 communities that are now roll-outing their action plans. In Christian Aid's Mid-term Review of the work, Khalikapur community identified five key outcomes and reflected on their progress to date:

- 'We used to think in isolation but now we are acting collectively on a common platform that we can do together.' (70% of the community is involved in action plan activities vs 10% before)
- They have identified perennial flood risks for (mainly dalit) households living next to the river as the river course changes (60% of affected households are benefitting but the required road and protective bank is still to be constructed)



- They have access to new adaptive measures, such as demonstration plots with new resilient crop varieties and tree planting (only 2% of households involved before, 30% after)
- They have formed the DMTF and have more community knowledge of EWS, evacuation, etc (0% before, 50% after PVCA)
- They have more access to government schemes such as home reconstruction, NREGA, etc (0% were active in applying to these schemes before but 90% of those eligible are now active after PVCA).



CHALLENGES

With any approach based on processes of empowerment, community expectations of more tangible forms of assistance can present a dilemma, especially when their previous experience of NGO support has been largely material humanitarian relief. This requires considerable skill in developing relations of trust with communities and in facilitating community-based planning. In comparison with the World Bank's post-flood recovery programme which has a budget several

hundred times larger but questionable impact in terms of direct long-term benefit to the dalit communities of Supaul, the scale of CASA's reach with a relatively small budget demonstrates the cost-effectiveness of the PVCA methodology but its success does depend on skilful implementation which can be hard to scale up, for example through government advisory services.

An approach that rightly focuses on increasing access to government services and schemes is to a great extent dependant for its impact on at least a certain level of responsiveness on the part of those government services. So far, this expectation has been justified but care is needed in navigating community-NGO-government relations and avoiding a hostile reaction from vested interests that divert resources away from their intended beneficiaries. Likewise, a pervasive feature of the area is the lack of land rights of the most vulnerable. The dalit communities lack land rights and are mostly landless labourers or involved in sharecropping arrangements with local landlords. Clearly more secure land rights would significantly enhance their resilience and ability to turn their action plans into reality.

