Community-based Disaster Risk Management: Pakistan 2011/12

Pakistan's Community-based Disaster Risk Management and Livelihoods Programme was randomly selected for an Effectiveness Review under the adaptation and risk reduction (ARR) thematic area. The review focused on the work carried out by two of Oxfam's partner organisations – the Doaba Foundation and the Help Foundation – in Muzaffargarh and Rajanpur districts of Pakistan's Punjab Province.

Over 21,700 people residing in 60 villages in these two districts are being reached through the programme. These people are exceptionally vulnerable to extreme flooding events, given that they reside directly on the floodplains of the Indus and Chenab rivers. And the overall aim of the programme is to reduce their vulnerability, particularly by reducing loss of life and assets and promoting livelihood resilience in times of extreme flooding.

Figure 1: Location of Sites for Effectiveness Review in Punjab

The project's main interventions targeted at the grassroots level include:

- Disaster risk reduction training (including first aid and search and rescue) and village disaster management planning.

- Construction of raised emergency shelters, culverts, water harvesting ponds, and "flood friendly" pit latrines.

- Livelihood, agriculture, and animal husbandry training.

- Distribution of goats and hand pumps to exceptionally vulnerable households.

EFFECTIVENESS REVIEW SAMPLE 2011/12: BANGLADESH BOLIVIA COLOMBIA
DEMOCRATIC REPUBLIC OF CONGO ENGLAND ETHIOPIA GEORGIA GUATEMALA HAITI
HONDURAS INDONESIA KENYA LIBERIA MALI NICARAGUA NIGER PALESTINE
PAKISTAN PHILIPPINES SOMALIA SOUTH AFRICA UGANDA

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Evaluation Method

To assess the effectiveness of the programme on reducing risk and promoting adaptive capacity, a quasi-experimental impact evaluation design was implemented. This involved administering surveys to representative samples of 341 households residing in 57 villages targeted by the programme and 400 other households residing in 63 similar villages in adjacent areas that were not. Propensity score matching and multivariable regression were subsequently used in the statistical analysis of the data to reduce bias in the comparisons made between the two groups. Two key areas of interest were investigated through this process: the extent the supported and unsupported households a) possess characteristics that are assumed important for successfully coping with and recovering from extreme flooding events, as well as adapting to emerging climatic trends and uncertainty; and b) were affected by the extreme floods that hit Pakistan in July to September 2010.

Rating key: 🟢 - Evidence supporting large impact; 🟢🟡 - Evidence supporting more modest impact; 🟡 - Evidence of large impact, but only for specific sub-groups/measures; 🟡🔴 - Evidence of modest impact, but only for specific sub-groups/measures; 🔴 - No evidence of impact

Results

A number of large and positive differences were identified between the intervention and comparison households. Overall, the intervention households scored more positively on most of the 'resilience' characteristics. There is also strong evidence that they experienced less asset loss during the 2010 floods. One particularly noteworthy finding is that the supported households were actually poorer in terms of asset ownership before the programme began but were found to be better off at the time of the assessment exercise. The respondents from the supported villages were also found to be more aware of their villages' disaster management plans and had participated more in disaster preparedness meetings. There is no indication, however, that the programme positively affected livelihood diversification and motivation among the supported households to pursue alternative livelihood strategies. Nevertheless, there is very strong evidence that the programme generated positive changes in terms of reducing flood-related risk.

Outcome	Rating	Commentary
Outcome 1 – OGB global ARR outcome indicator	🟢	Strong evidence that the programme affected the majority of the 'resilience' characteristics in all four dimensions assessed.
Outcome 2 – Increased advanced warning before onset of extreme flooding	🟢	Households in the intervention villages received, on average, about two days of advance warning, against an average of one day for households in the comparison sites.
Outcome 3 – Reduced loss of assets in times of extreme flooding	🟢	Households in the intervention villages reported losing less livestock, grain, and equipment/tools than households in the comparison villages.
Outcome 4 –Ability to meet household needs in times of extreme flooding	🟢	Intervention households were poorer in 2008 than the comparison households but are now relatively richer and reported being in a better position to meet basic needs.

Going forward

The Oxfam Pakistan team has already shared and discussed the results with the two implementing partners. There are also plans to share the findings and lessons with other stakeholders throughout Pakistan, including the National Disaster Risk Reduction Forum. Efforts will further be undertaken, under the direction of Oxfam's Global Research Team, to carry out in-depth qualitative research to unpack the key factors that made the programme such a success. While the findings of the effectiveness review are very positive overall, efforts will, nevertheless, be made to strengthen future disaster risk reduction programming by directing more attention to climate change adaptation and livelihood

Photo credit: Caroline Gluck/Oxfam