

Farmer Field Schools

- As part of the Zurich Alliance, Practical Action is working to increase the resilience of communities to floods in Nepal, Bangladesh and Peru.
- Farmer field schools and simple technologies are reducing community vulnerability by providing food security and income generation.

Twenty-six year old Manju Chaudhari lives on the flood plains of the Karnali river basin in Nepal, with her six family members. Manju and her family survive by cultivating crops which have to be supplemented by her husband travelling to India for seasonal agricultural work. The area suffers from flash floods, giving the villagers little time to protect themselves or their assets. In recent years Manju and her family have lost expensive livestock and have suffered extensive damage to their home and food stores to rapidly rising flood waters. The threat of floods is a constant source of stress to the family, often forcing them to take high cost loans to help them recover.

TECHNICAL SKILLS

The Practical Action flood resilience programme, set up the farmer field schools to provide a learning and demonstration site for local farmers. Technical field staff regularly train the farmers in new sustainable farming techniques, and introduce them to a wider variety of crops. Market training was provided by the schools to build the farmers' confidence to sell their new produce. Since participating in the school Manju has been able to cultivate a wider variety of crops for different growing seasons. This has increased her family's nutritional intake, improved her income and has reduced her losses as she can now cultivate different varieties outside the monsoon season. Manju tells us:

“ *The additional crops have earned me an extra 770 USD in two seasons.* ”

The project has also worked to build flood resilience knowledge with the communities. This has led to Manju investing her extra income to make her home more flood resilient. She raised the floor of her home to stop flood waters from



Manju at home in Bangan. Credit: Lok Pokharel

entering. She also invested in a raised grain store to protect her food supply during flooding. On the advice of Practical Action, Manju constructed a bio-gas plant to protect her stove and fuel from water – this has had benefits even during the dry season as it reduces the amount of time Manju needs to spend collecting firewood.

“ *I can also now afford health insurance for my children, as well as continually investing in their education.* ”

With extra time at her disposal Manju has become an active member of her community. She has trained in simple book keeping and become the treasurer of the Community Disaster Management Committee. She has also participated in flood early warning training. Manju anticipates uncertainty in the future because of flood hazards but perceives her family's coping capacities are now better. She is confident in her ability to build back better with the skills and experiences she had gained.

To read more about our programme please visit [practicalaction.org/global-flood-alliance-programme](https://www.practicalaction.org/global-flood-alliance-programme)



Empowering Communities

- As part of the Zurich Alliance, Practical Action is working to increase the resilience of communities to floods in Nepal, Bangladesh and Peru.
- Practical Action is building capacity at local level to ensure community engagement in development.

In Lima, Peru, at the edge of the Rimac river is the small settlement of Las Esteras. Despite the community's close proximity to the capital, they lack running water and other basic amenities. The vulnerable position of the settlement makes flash floods and dangerous mudslides a serious threat during the rainy season.

Berta Huaroto, a 65-year-old woman is one of the residents living on the banks of the river. She is the president of Las Esteras. She is aware of the danger her family faces by living on the river bank but like many others is reluctant to leave. Her parents arrived there 60 years ago and since then Berta has invested all she has in her land and property. In 1997, a larger than average flash flood broke through the small protective wall around the community. Fast flowing mud and rocks tore through the houses. Berta remembers:

“ *We were not prepared, all we wanted in that moment was to save our lives; we lost all our hard earned assets – livestock, crops and household appliances ended up in the river* ”



Berta in Las Esteras. Credit: Soluciones Practicas

Since then the community have been waiting for help from the government to build protective measures for their homes but to no avail. Instead they live in constant fear that their homes, livelihoods and lives could be suddenly wiped out.



Rimac valley, Lima. Credit: Soluciones Practicas

Through the Flood Resilience Programme Practical Action has been working with people like Berta to address the problem. Alongside community training and technological innovations such as early warning systems, Practical Action has been working to ensure the community is well represented in local government. Linking several communities into a cross community committee Practical Action began fostering a dialogue with the Municipality, the National Water Agency and other key representative bodies, to bring the voice of the community to decision makers.

With the support of Practical Action Berta feels more confident to advocate on behalf of her community. She says

“ *Practical Action listens to us and in doing so they make us feel important; and it gives us the strength to face injustice. Now I fight with the authorities because I know I have the right and I am right.* ”

To find out more about our programme and people like Berta please visit [practicalaction.org/global-flood-alliance-programme](https://www.practicalaction.org/global-flood-alliance-programme)



SCHOOL BRIGADES

- As part of the Zurich Alliance, Practical Action is working to increase the resilience of communities to floods in Nepal, Bangladesh and Peru.
- School brigades build capacity of young people so they can take positive action in the face of disasters

Piura is a coastal region in the north-west of Peru. Precipitation is sparse except during El Niño events when heavy rainfall creates water flows through normally dry channels, causing flooding and large-scale mudslides called huaycos. Like much of Peru the region has a number of small



Cynthia during training.
Credit: Soluciones Practicas

settlements situated along the banks of the river. These settlements are made up of poor and vulnerable communities who are often unsupported by emergency services. These communities are some of the worst affected during El Niño and so Practical Action have been working closely with the Civil Defence since 2012 to ensure these communities are more flood resilient. Practical Action's flood resilience programme brings technical expertise and innovative ideas for community participation.

The programme has supported the development of school brigades, where high school students from across Piura are now receiving 6 months of training by Practical Action and the Civil Defence. The aim of the brigades is to provide young people with lifelong skills to protect themselves and their community when a flood strikes. Jimmy and Cynthia are leaders of a brigade of 30 students. Brigades are trained in three modules: Preparation; Response and Rehabilitation. The *Preparation* module educates the students in disaster risk reduction, trains them in first aid, spreading of alerts and supporting evacuations. The *Response* module trains them to work alongside and support the work of the civil defence through distribution of materials and emergency supplies.

The final module – *Rehabilitation*, familiarises the students with contingency plans developed by the Civil Defence so they can support and inform their community immediately after a flood. This is a topic that has always interested Cynthia:

“ *I like to understand how dangerous different natural events can be, and above all know what to do when faced with them.* ”

All students who have been trained as school brigadiers are registered in the database of the Civil Defence. After graduation, they will be called once a month to hold coordination meetings where they will have an active participation in the execution of community drills scheduled throughout the year. The training has taught the young people skills that can have far reaching impacts in their own communities. Jimmy and Cynthia do not want to keep what they have learned to themselves - they want to share their knowledge with the members of the community to which they belong. Jimmy says:



Jimmy during training
Credit: Soluciones Practicas

“ *I now feel totally capable of acting in the face of disaster and being able to help those who do not know what to do during those times.* ”

To read more about our programme and people like Jimmy and Cynthia please visit [practicalaction.org/global-flood-alliance-programme](https://www.practicalaction.org/global-flood-alliance-programme)

