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# Institutionalising Sustainable Community Based Disaster Risk Management

## Case study

Community based disaster risk management (CBDRM) is a process in which at-risk communities are actively engaged in identifying and taking steps to reduce their vulnerability to disaster risk and build their capacities to manage them.

SEEDS is an implementing partner for a 3-year programme looking at *Institutionalising Sustainable Community Based Disaster Risk Management* (CBDRM). The first phase involves collecting case studies of successful CBDRM initiatives to better understand the factors that need to be in place for community projects to be sustainable and replicated successfully elsewhere.

Your case studies will be compiled into a global and regional publication. As a result, this is an excellent opportunity to get your work published and gain international recognition for your work and the communities you work with. Some of the organisations that submit a case study will get invited to an international workshop to analyse the case studies to determine the critical factors for sustainable CBDRM. You could be one of them!

We also want to identify in which countries CBDRM has been institutionalised, or established as the norm.

If you have a case study of an example of CBDRM that you think other communities can learn from, please fill in this template and return to [shalini@seedsindia.org](mailto:shalini@seedsindia.org).



Protecting Through Education



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# Responding to emergencies: A PfR perspective



## About the case study

**Country:** India

**Community/case location:** Select districts of Odisha

## Activities

The PfR project in India began with the goal of building the livelihood resilience of communities from 2011-2015.

The PfR programme in India was implemented by Wetlands International South Asia and partner organisation NetCoast. The Mahanadi Delta, located on the eastern coast of the Indian sub-continent is climatologically prone to tropical cyclones with their resultant storm surge and coastal inundation, between the months of April to May and October to November every year. The rivers flowing through the region are heavily laden with silt which reduces their holding capacity and results in recurrent floods. The CBDRM activities took place in the state because of the aforementioned vulnerability and specifically because Super cyclone Kalinga which resulted in the death of 10,000 people. CBDRM activities mostly covered disaster preparedness, creating village level disaster risk reduction committees and building their capacities to assess local risks and vulnerabilities raising awareness on risk reduction and disaster preparedness and response measures. Panchayati Raj Institutes National and state disaster authorities and specific government line departments were involved in the process. The project ended in 2015 and was funded primarily by Cordaid.

## Process

### How the intervention related to the community

Community level institutions were the entry point for implementing integrated DRR. The interests of marginalised sections of communities were also addressed by paying special attention to inclusion. Resilience of these communities were to be built through a three-pronged strategy of improving natural capital, diversifying livelihood options and enhancing community disaster preparedness. Netcoast in



Odisha along with the community members carried out baseline survey of all 100 villages followed by detailed participatory Hazard-Vulnerability-Capacity Assessments (HVCA) of each village. Based on the identified hazards, vulnerabilities and capacities detailed Village Level Risk Reduction Plans (VLRPP) were developed and Village Level Risk Reduction

Committees (VLDRC) were formed in each village, through the facilitation of the PfR Task Force. The primary responsibility of the VLDRCs was to implement the VLRRPs and ensure the communities are prepared to face hazards.

Part of the plan addressed community preparedness by building skills that would be required at the time of a hazard event, such as early warning, search & rescue, first aid and evacuation. Construction of disaster resilient infrastructure such as raised plinth hand-pumps and toilets were also addressed under this component of the plan. A total 66 villages in Odisha have a VLRRP implemented by a VLDRC. At the field level the project activities were implemented in close collaboration with the Panchayati Raj Institutions (PRIs) i.e. the local governance systems. As part of the strategy to diversify livelihoods the information provided to villagers on fishery schemes was distributed in their native language.

### How the most marginalised and at-risk groups were included



Vulnerable communities were actively involved in the CBDRM process. In India, like the other countries, each community (i.e. the target group) is an integral part of the decision-making processes, not only in the development of risk reduction plans, but also in their implementation, updating and continued functioning. The participation of representatives from the marginalised sections of the community (including

women) is ensured in the community managed risk institutions that have been formed under the project for implementing the risk reduction plans. Of particular significance is the participation of women that has seen a significant increase over the period of implementation of the project. About 43% of the beneficiaries reached through the project are women. There were primary advocacy concerns raised by the marginalised. Nutritional deficiency of children below the age of 5 years, men and women above 60 years, pregnant and lactating mothers, obstetrics and gynaecological aid to antenatal and postnatal cases was observed. Including the vulnerable was a challenge and hence representation in CBDRM process was limited. The vulnerable also have poor access to basic amenities and frequently migrate due to loss of crops and poor access to developmental programmes.



### How the activities were adjusted to account for changing priorities and contexts in the community

Villages located in the Central Mahanadi Delta (Odisha) which would experience the risk of floods and/or water logging every monsoon season had plans that included Ecosystem Management Restoration measures related to rejuvenating inlet and outlet channels to reconnect the natural drainage patterns of the landscape. At all levels, the aspect of climate change



and resultant extreme events were appropriately intertwined into the process. For example, while training farmers on sustainable agricultural practices training on mitigating measures to reduce the impacts of climate change have been addressed. While planning disaster resilient infrastructure in villages, care has been taken to construct atleast one such measure by incorporating necessary design elements oriented towards extreme As each landscape is unique we undertook plantations of embankments (especially of the river channels and canals) to minimize the risk of embankment breach and collapse. Many of the embankment plantations also had a dual benefit, as most of the trees that were planted had a commercial value, thereby providing the communities with additional income from the sale of the products. Plantation to control river bank erosion was carried out in 12 villages.

A total of 30,697 saplings of economically important species were planted on river embankments. For 8 coastal villages, NetCoast partners placed a funds request for mangrove plantation to the World Bank assisted Integrated Coastal Zone Management Project in 2012, which has since been approved. The partnership mobilized community level organizations for physical implementation of the project activities including site identification, nursery preparation, plantation, and watch and ward. Funds for 24 ha plantation was provided to the village community organizations based on a tripartite agreement between the said organization, NetCoast partner and Integrated Coastal Zone Management Project. During 2013, 5 ha of mangrove plantation were created in 5 villages (12,000 saplings of mangrove and mangrove associate species) of Ganjam District. NetCoast continues to provide monitoring support in the project villages to ensure that the agreed workplan is adhered to and the plantation is maintained. Based on the performance, ICZMP has assured support to PfR for extending mangrove plantation in other coastal districts as well.

## Impact

### How the initiative has continued beyond the end of the programme

The success of the VLDRC can be observed as the PfR project was in its third year of implementation when Cyclone Phailin struck many of its project villages. While assessing the various forms of information transmission across all phases of Phailin, it was found that VLDRCs played an important role in transmitting information to the communities across most phases. VLDRCs were able to contextualise the general information received to the specific conditions and needs of respective communities and thereby relay accurate and appropriate information that the community could use and translate into action. It was while reviewing the existing institutional set-up in villages of the Mahanadi Delta and the roles that each institution is expected to play, it was found that VLDRCs are the only institutions' that have the specialised skills and capacity to enable Community Managed Disaster Risk Reduction (CMDRR). The Results can be seen in Figure 1, where community institutions play an effective role. When Phailin struck Keutajanga, the cyclone shelter was not ready. The VLDRC however could mobilize the villagers for an early evacuation to school-cum-cyclone shelter 4 kilometres away from the village. The entire village moved out by October 10, 2013, two days before Phailin made a landfall. VLDRC effectively managed the evacuation process, even ensuring adequate preparedness in terms of food and water while at the centre. Phailin completely destroyed betel vines of Keutajanga, which were the main

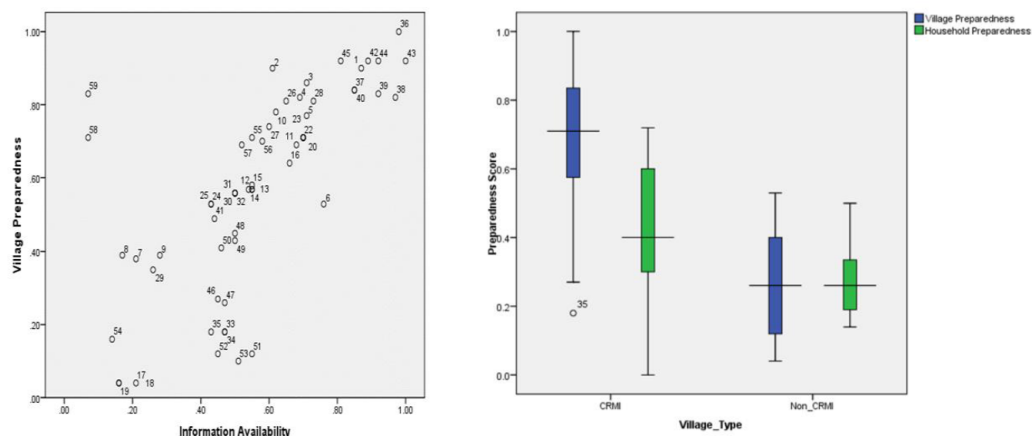


Figure 1: Effectiveness of VLDRC

income source of its 40 households. VLDRC stepped into manage the relief and rehabilitation funds. Unlike their neighbours, community members of Keutajanga resolved that the funds would not be used for cash for work for labour to clean the massive debris, but would instead only buy bamboo to reconstruct beetle vine frame. Communities organized themselves in groups of 10 to clean each field and reconstruct the frames. Bouncing back from the damage was much faster.

## How lives have changed since the project

Through our sustainable livelihoods framework, diversification strengthened resilience by enhancing livelihoods capital multiplying options. This promotes human well-being and,

through sharing of benefits, incorporates equity issues. The project focused on strengthening the existing agricultural practices so as to improve the productivity of agricultural crops. Communities were trained in sustainable agricultural practices such as using flood resilient, higher yielding seeds and organic manure, and undertaking crop rotating practices. Farmer clubs were formed and market linkages were established. SHGs (especially for women) were revived and/or established as a means of diversifying community livelihoods. Common economic activities undertaken by the SHG's included mushroom cultivation, coir mat making, animal husbandry, small shops, tailoring units and dry fish production (especially in coastal Odisha).

## Other

In order to ensure sustainability of activities beyond the project life cycle initiatives were taken to integrate village level risk reduction plans into village development plans. And, communities have been made aware of different development plans and schemes from which they can leverage resources for continuing integrated DRR/CCA/EMR activities. Infact the last two years of project implementation was oriented towards demonstrating this process. For continuation of programme beyond 2015, a workshop on PfR sustainability was organised during June 2013. Based on the outcomes of internal monitoring and evaluation and PfR mid-term review, implementation arrangements were reviewed and efforts were made to identify and readjust intervention to address the gaps. Indicators for sustainability of PfR programme was developed at three levels i.e. sustainability of community institutions, financial sustainability and organisation (network partner) sustainability. Capacity building needs were identified at each level and separate training modules have been prepared by ASK for community institutions and network partners to achieve and sustain PfR vision beyond 2015. Strengthening CBOs and linkage with government departments was the major focus during 2014-15 for sustaining PfR vision.