



Building safer communities in South Asia

Odisha disaster mitigation programme

Local context

Floods, heatwaves, droughts and cyclones are regular occurrences in the coastal districts of Odisha (formerly known as Orissa). These natural disasters have led to the loss of human lives and caused insurmountable damage to household and livelihood assets and community development. In terms of cyclone occurrence, six districts (Balasore, Bhadrak, Ganjam, Kendrapara, Jagatsinghpur and Puri) stretching over a 480 kilometre coastline have been categorized as a high risk zone according to the Vulnerability Atlas of India. The state has been declared disaster-affected for 95 out of the last 105 years. With 50 per cent of its population living below the poverty line, Odisha is one of poorest and least developed states in India. This level of poverty has further aggravated the population's vulnerability to natural disasters, in particular for those living in the high-risk coastal areas.

Vulnerability of the population living along the coastline is further exacerbated by the lack of safe shelter, effective early warning systems and insufficient community awareness on how to prepare for disasters. Disaster response, including evacuations, is often hindered due to underdeveloped transport and infrastructure. The impact of climate change will continue to strain existing resources and heighten levels of vulnerability. Rising sea levels, frequency and severity of floods and cyclones, heatwaves and coastal erosion pose imminent challenges. During the most recent cyclone in 1999, it is estimated that 10,000 people lost their lives and hundreds of thousands were made homeless. In 2001, Odisha witnessed its worst flood in recorded history, affecting 25 of the 30 districts, submerging areas which to date had not experienced flooding. In the same year, Odisha suffered one of its worst droughts, affecting the lives of 11 million people and a heatwave which killed approximately 1,500 people mostly along the coastline. These climatic events have also hit agricultural production and fallow lands, leading to widespread malnutrition, and posing a significant threat to food security in the state.

The Odisha disaster mitigation programme was an initiative started in 1995 by the Indian Red Cross Society. The initiative was supported financially and technically by the Federal Republic of Germany through the German Development Bank (KfW) and the German Red Cross.

The following provides an overview of a two-fold initiative implemented in Odisha aimed at mitigating disasters by providing life-saving structures and empowering communities to better prepare for and minimize the impact of natural disasters on their lives and livelihoods. It highlights some of the key factors which have contributed to the initiative's successful long-term development and which raises the possibility of replication in other communities vulnerable to natural disasters.

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What was the programme?

The Odisha Disaster Mitigation Programme (ODMP) was an initiative started in 1995 by the Indian Red Cross Society (IRCS) and Odisha State Branch (OSB). The initiative was supported financially and technically by the Federal Republic of Germany through the German Development Bank (KfW) and the German Red Cross (GRC). The programme was implemented during two phases. ODMP Phase I (1995-2002) saw the construction of 23 multi-purpose cyclone shelters in the most vulnerable villages in six cyclone prone coastal districts of Odisha.

The programme focused on two elements:

1. Construction of cyclone shelters (physical building);
 2. Social mobilization, i.e., use of the buildings in times of disasters and non-disasters as well as training and strengthening of the self-help capacity of the local population and the implementing partner (social building).
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Following the successful implementation of ODMP Phase I and understanding the extent and severity of damages caused by the super cyclone in 1999, KfW and GRC extended their support for ODMP Phase II in 2003. The overall goal of this six-year programme, was to reduce the population's vulnerability to disasters and to establish a culture of disaster preparedness in order to protect lives and livelihoods in the cyclone prone coastal districts. This was carried out through the construction of 36 multi-purpose cyclone shelters for a population of 61,885 in 72 villages in the three most cyclone prone districts of Odisha (Balasore, Bhadrak and Kendrapara). The programme also sought to institutionalize community-based disaster risk management by enhancing the capacity of the local population to address natural disasters better through training and to strengthen state, district and block branches for scaling up and promoting disaster preparedness.

Global, national and institutional priorities

The objectives of ODMP II are in line with the policies of the partner country, partner institutions and international agendas such as:

- National Disaster Management Framework. Government of India, 2005
- Disaster Management Act 2005 – lays down institutional and coordination mechanism at all levels
- IRCS strategic development plan 2004–2008 and 2009–2012
- Strategy 2010 of IFRC. Disaster Preparedness is defined as one of the four 'core areas' of work for the member National Red Cross and Red Crescent Societies
- United Nations Hyogo Framework of Action 2005 (Building the resilience of nations and communities to disasters)

What did the programme achieve?

According to ODMP Phase II milestones, the entire social mobilization for one shelter community (1,500 – 3,000 persons depending on shelter size) takes 36 months. Five milestones were defined to monitor the activities, implementation, process and the impact of the programme:

- Community preparation: covers preparatory work such as baseline study, selection of shelter site, approvals and staff selection.
 - Formation of community-based disaster risk management organizations: covers the establishment of organizational structures at the community level.
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- Strengthening of community-based disaster risk management organizations: includes trainings for shelter use and maintenance, first aid, search and rescue, health and hygiene, financial management, etc.
- Handing over of social building: advocacy work to sustain the social building through awareness-raising and capacity building at the different levels and inter-linkages with shelter activities and the governmental structures at block, district and state levels.
- Handing over of multipurpose cyclone shelter: community takes the full responsibility of the proper use and maintenance of the shelters and the disaster preparedness of the community.

Community mobilization

Social mobilization was a main component of the programme. This permeated into all aspects of the programme including the construction and maintenance of 36 multi-purpose cyclone shelters. The shelter sites were selected using properly defined criteria. A baseline study was carried out at the beginning of site selection to identify and take into consideration social, economic, environmental and physical vulnerability. Significant criteria included the willingness of the community to cooperate and to contribute time and a small amount of money for the shelter community chest (a voluntary monthly collection per household).

Through community-level disaster risk reduction activities the objective was to ensure that communities managed their shelter during disaster and normal (non-emergency) times; organized and trained to prepare for and respond to disasters; and that they were aware of local capacities, cyclone related risks and reduction measures.

This aspect of the programme heavily depended on the establishment and continuity of a number of organizational structures at the community level to ensure sustainability:

- Household micro-groups: provide representation for each household (both male and female head of the family) in the shelter community. This system helps to ensure that information reaches all community members. They conduct monthly meetings and discuss disaster risk reduction activities along with the monthly collection for the shelter community chest.
- Task forces: teams of skilled persons available in the shelter community to deal with disaster preparedness and response in a more organized and systematic manner so as to minimize loss of lives and property during disasters. They also support the community in normal (non-emergency) times. The task force and associated volunteers are trained in community-based disaster risk management and have been divided into sub-groups: first aid, warning information and dissemination, search and rescue, emergency relief and water and sanitation.
- Shelter and disaster management committee: in effect acts as the shelter steering committee. The committee holds monthly meetings, takes the lead role in all disaster preparedness and disaster risk reduction activities, conducts emergency meetings after receiving a cyclone signal, liaises with Red Cross and other service providers, cooperates with IRCS/OSB during disasters, updates contingency plans, ensures multipurpose use of the cyclone shelter and provides proper maintenance of the shelter based on the maintenance guidelines.

- Shelter and disaster management federation: several shelter and disaster management committees within one block are linked together as a federation. This alliance functions in some ways as a pressure group to formulate jointly the community's needs and to negotiate with local government representatives.
- Shelter community chest: each of the 36 shelter communities started with an initial deposit collected from the households at the beginning of the programme. Subsequently each household voluntarily contributes to the chest every month. The purpose is to make the shelter community self-reliant and resilient. The fund is intended to be utilized for minor repair and maintenance of the shelter and equipment, emergency use during and after a disaster, insurance of community, and community developmental work.

Disaster risk awareness

At the community level, disaster risk awareness activities were tailored to meet local tradition and culture and to also take into account diverging needs. These activities aimed to raise community awareness of local capacities, cyclone related risks and reduction measures included:

- Children: classroom session, storytelling, mock drill, rally and demonstration.
- Youth: training, workshop, posters, flip charts and manuals.
- Middle-aged persons: training, workshop, mock drills, audio-video show, community meetings, personal interaction, household visits, posters and manuals.
- Older persons: community meetings, personal interaction and household visits.
- Persons with disabilities: mock drills, community meetings, personal interaction and household visit.

To help overcome social vulnerability the programme considered the active participation of women, children and older persons. Participation of women in social

"The Indian Red Cross has always looked to strengthen community resilience. With this programme, we have taken the next step, and enabled villages to strengthen themselves. We hope that other National Societies in cyclone prone regions follow the example this programme sets."

Dr. S.P. Agarwal
Secretary General
Indian Red Cross Society





mobilization activities such as dry exercises, first aid drills, collection of funds and community based disaster risk management were promoted. Examples of disaster risk awareness activities include:

- Eight songs about disaster preparedness were developed and disseminated to all 59 shelter communities (approximately 125,000 people).
- Mock drill on disaster preparedness organized in 29 shelter communities.
- Street plays on disaster preparedness were organized in 39 villages.
- A documentary on ODMP was developed to raise awareness.

Capacity building and sustainability

A key priority for the programme was to strengthen the capacity of the National Society's state, district and block branches for scaling up and promoting disaster preparedness. Since ODMP's initial implementation in 1995, Red Cross membership in Odisha has increased nine-fold while fundraising activities have steadily risen, making it one of the strongest state branches in India. Additionally, the programme has had significant impact in the strengthening and development of OSB. Over the course of the past five years, more than 60 per cent of OSB's total budget was related to ODMP activities.

Additionally, a fundamental objective of the programme was to ensure that the three district branches have the capacity and functional structures in place to efficiently operate and implement ODMP activities. This led to the introduction of block branches at the village level, a new concept for the Red Cross structure in Odisha, in order to reach the direct beneficiaries of the programme more effectively. The block branches are better equipped to coordinate and cooperate with the community and will enable the sustainability of the programme after ODMP has phased out. Seven Red Cross block branches were set up in the ODMP Phase II areas (three in Balasore district, two in Bhadrak district and two in Kendrapara district).

Through ODMP Phase II, district and block branches were strengthened through the use of 'Characteristics of a Well-Functioning National Society' as prescribed by

Contingency planning

One of the implementation milestones for social mobilization is the preparation of a contingency plan by each community. The planning document provides an assessment and analysis of risks, vulnerabilities, capacities, resources and roles. It also identifies disaster preparedness measures that can be taken at individual and community levels to prevent loss of life, livelihoods and property in case a cyclone strikes. Through ODMP II, a marked improvement has been made in the three districts through the communities' ability to carry out contingency planning.



Community representatives have noted that in order to ensure sustainability of the programme and avoid a decrease of disaster awareness and loss of skills, regular awareness activities, trainings and community contingency plan updates are needed and should be monitored. The task forces in particular consist of young men and woman who tend to leave the village for education, job opportunities or marriage. Therefore, training updates twice a year before and after cyclone season are necessary.

the International Federation of the Red Cross and Red Crescent Societies. These include establishment of a clear mission, development of a legal base and formulation of a constitution as the basic foundation of a well-functioning branch. It also includes guidelines to regulate membership, funds, objectives, personnel and lines of communication. In addition, the branches' human resource skill base has steadily improved through technical training. Given that the block branches are relatively new structures further attention will be required to ensure sustainability according to the guidelines for a well-functioning Red Cross branch.

Additionally, a concerted effort was made to ensure that linkages were established with the youth to create a group of skilled volunteers. Schools and colleges were used as the primary vehicle in transmitting emergency skills such as first aid as well as disaster risk reduction messages. In the three operational districts of Balasore, Bhadrak and Kendrapara, 193 junior Red Cross counsellors and 94 youth Red Cross counsellors were trained in first aid and home nursing.

At the state branch level, ODMP has increased human resources and improved linkages to disaster management stakeholders. The OSB has a Disaster Preparedness Training Centre which trains Red Cross staff and volunteers in disaster preparedness and response and provides them with the skills to work not just in Odisha but also in other states.

An Inter-Agency Group, comprised of UNDP, Oxfam, UNICEF, Sphere India and World Vision India, was established with the support of ODMP to respond and to prepare for disasters. It also facilitates networking, knowledge sharing and fundraising, which will help to consolidate sustainability after ODMP has been phased out. There is now some momentum to create a think tank for disaster risk reduction at the state level. Regular meetings and collection of funds for the shelter community chest have taken place and there is strong, visible community ownership. However, these are new structures and should be supervised and monitored over a certain period of time in the interests of programme sustainability. There is also a necessity for stronger involvement from community representatives in decision-making processes at district and state levels and a need for networking and exchange of experience between the shelters.

Community ownership

Commitment at the level of the shelter community and at the state level is very high because they are the key stakeholders and direct beneficiaries of the programme.

A key landmark in the programme was the handing over of the shelter to the community. Shelters were handed over to the community only once they were constructed, fully equipped and the social mobilization aspects of the programme were completed, this included the development of community contingency plan. The construction and social mobilization work was divided into four different groups, spread across the three districts, to allow for sufficient planning and implementation between each.

Evidence of community engagement:

There was full level of engagement and ownership by community members regarding shelter-based organizations. This is evidenced by the fact that:

- Each shelter is well prepared and task force members are well versed in their duties and responsibilities. The shelters have been kept in clean and well-maintained.

- The majority of the ODMP Phase II shelters (22 out of 36) are used daily as schools. A memorandum of understanding with the respective village school committees fosters a relationship with governmental school programmes.
- The shelter and disaster management committee promotes the use of shelters as a meeting hall for self-help groups, local business, etc.
- The shelter and disaster management committee members are well informed and tend to have good links with governmental representatives which has helped to establish ownership and sustainability of activities.
- The high participation of women in the task forces and in the shelter and disaster management committee is noteworthy.

Programme impact

The overall goal of the programme was to reduce the vulnerability of the population in Odisha in three districts (Balasore, Bhadrak, Kendrapara) in relation to disasters.

A remarkable impact of the programme at community level was the establishment of a spirit of unity, which has helped to empower the local communities. Heterogeneous societies in remote rural areas provide a high potential for political or social unrest. The disaster preparedness programme taught life-saving skills but also influenced wider attitudes. The communities better understand that natural hazards can hit anybody regardless of race, cast, religion, wealth or poverty - life and property can only be saved if people work together in unity. The programme conveys the fundamental principles and humanitarian values of the Red Cross Red Crescent Movement.

Furthermore communities have been given new hope for the future through preparedness and development activities. Communities are now more self-reliant in that they are better able to cope with disasters and do not depend only on external help. In rural areas of Odisha the involvement of women in trainings, meetings and decision-making processes in the shelter steering committee is seen as a very positive step forward.



Linkages have been established at the village, block and district level with elected representatives, the local administration and the media working together to advocate for and promote disaster risk reduction measures which also contribute to overall development and poverty reduction in villages. Communities are better prepared, their capacity is strengthened and as a consequence are less vulnerable to natural disasters. Networking and strategic cooperation with international organizations with access to funds has been facilitated through the Inter-Agency Group initiated and lead by the IRCS/OSB.

Looking forward

The concept of the ODMP programme was considered to be excellent, well thought out and properly implemented, particularly at the community level. Despite its success there are still future challenges to overcome, mainly in the field of organizational and capacity development. It is imperative that these two aspects are addressed for sustainability.

Further recommendations are:

- Governance and management trainings for both the state and district branches.
- Involvement of the district branches in decision-making processes and creation of better working conditions for full-time Red Cross employees.
- Resource mobilization at the state level focusing on technical guidance in writing concept notes, proposals and reports.
- Regular finance management trainings at the state, district and the block/community levels to maintain community funds.
- Regular monitoring and follow-up at the community level to better sustain social mobilization and foster community participation at district and state levels.
- Dissemination of training materials developed during the programme and sharing of best practices through exchange workshops and exposure visits.
- Integration of climate change aspects in follow-up activities such as the community contingency plan update and support for training on climate change at all levels.

All photographs were taken by Dr. Thorsten Klose, German Red Cross and are available from German Red Cross/IFRC on request.



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