



Disaster Ready Community in the Sundarbans

BRIEF



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The Sundarbans is the world's largest contiguous mangrove forest and a designated world heritage site. Shared by Bangladesh and India, it is home to some of the world's most endangered species. Millions of people depend on the Sundarbans for their livelihood. They catch fish, crabs and collect precious honey.

This unique ecosystem is under threat and highly vulnerable to floods, embankment erosion, and devastating cyclones. Such problems are linked to the rise in global temperatures and population pressures.

The underprivileged fishing communities are suffering from the increased frequency and intensity of the natural hazards for a long time. The villagers do not have adequate knowledge on Disaster Preparedness and use poor early warning system for natural disasters. With high poverty incidence, villagers cannot recover their losses and damages in a short time.

Furthermore, no organization has introduced climate adaptive structures to the community. With houses made of mudflats, people not only lose their house but also become displaced often permanently, making the impacts of such hazards even more unbearable.

Top reasons to form a “Disaster Ready Community”

- 1 Reduces the risks and vulnerabilities** of communities from the impacts of climate change and natural calamities through increased knowledge and awareness
- 2 Uses practical and suitable solutions to save lives and belongings**
- 3 Combines the power of communities and local governments** through participatory and integrated planning to improve community resilience
- 4 Rehabilitates and protects mangrove forests and conserves biodiversity** to make coastal ecosystems and communities more resilient to climate change
- 5 Empowers communities to organize and engage** in alternative and more sustainable livelihood opportunities
- 6 Creates value in child education to break free from poverty** thereby reduce vulnerabilities from future disasters

Disaster Ready Community

Development and evolution in the Sundarbans

The Sundarbans coastal region of Bangladesh is a complex network of islands, winding creeks and mudflats. Shared by Bangladesh and India, it is a sanctuary for some of the world's most endangered species - including the largest single population of Bengal tigers in the world. However, this unique ecosystem is under threat from population pressures and climate change.

For generations, the communities of some three million people who live in the edge of the Sundarbans have depended on nature and lived as fishermen, subsistence farmers, woodcutters and honey collectors resulting to an alarming rate of environmental degradation in the region. As a result, people suffer from the impacts of disasters.

In 2007 and 2009 two devastating cyclones - Sird and Aila hit the region, leaving massive damage to Sundarban's already struggling coastal communities, including the fisher flocks of Mathurapur Jelley Polly - a small fishing village located on the banks of Chunkuri River. The fisher flocks lost their households, fishing gear (boat and net), livestock, and injured and claimed the lives of many villagers.



Their predicament is even more aggravated by the rapid riverbank erosion disrupting their regular activities and destroying their houses. Furthermore, high tide, heavy rainfall, and frequent cyclones often flood the village and wipe out the communities.

Due to high poverty incidence, suffering communities have less time to participate in Disaster Preparedness activities. Their suffering increases as they have a very poor understanding of their risks and poor early warning systems.

Crumbling houses due to weak foundation and structure, overpopulation, weak governance, precarious rural livelihoods and ecosystem decline all underpin the rapid expansion of disaster risk in the Sundarbans.

Climate change makes things worse, making disaster impacts even more painful towards the poor communities of Mathurapur village.



Disaster Ready Community: An overview

Disaster Ready Community requires community participation for disaster risk reduction and management (DRRM). The target villagers are the key stakeholders to make the decision for disaster preparedness efforts. Generally, non-government organizations (NGOs) are the main initiator for disaster management, relief, and rehabilitation. DRRM is considered as a burning issue that restrains economic progress in nations like Bangladesh. Local government (Union Parishad), the lowest administrative tier of the central government are mandated to steer DRRM activities at the grassroots level. Local community participation has always been an issue for Bangladesh.



The Bangladesh Environment and Development Society (BEDS) applies a two-fold approach (1) immediate relief for poor fisher households through provision of alternative livelihood opportunities and (2) long-term disaster resilience building measures.

The Disaster Ready Community initiative aims to provide an immediate alternative livelihood opportunities to the most affected by disasters - the fishing villagers - while at the same time establishing and rehabilitating important rural infrastructures that will provide safeguard to the communities during the onslaught of the hazards.

BEDS has also supported the formation of a Village Disaster Management Committee (VDMC) with a view to reducing disaster risks of Mathurapur fishing village. This approach combines the power of the local government and the local community.

Through the VDMC, communities can:

- receive and disseminate disaster warning signals
- get assistance during the evacuation of the communities to the Cyclone Shelter
- get relief and rehabilitation assistance

The Cyclone Shelter is an important venue to conduct resilience building activities. The center is well equipped with a life jacket, raincoat, contingency plan, emergency contact numbers, disaster preparedness information, education and communication (IEC) materials, and vulnerability assessment papers (social mapping, hazard mapping, and problem tree analysis).



Disaster Ready Community

Goals and attributes

With an overarching goal of reducing the risk of the poor and disadvantaged people, the Disaster Ready Community approach intends to build a disaster resilient village model in the Sundarbans coastal region, particularly in the Mathurapur Village.

Empower and build local capacity

The Disaster Ready Community approach believes in building the capacities of the local community and empowering them to be involved in planning and implementing disaster preparedness activities through the formation of the VDMC. This approach helps the local government to perform their mandated functions with support from the local community.

Specifically, it aims to:

1. Engage the local community on disaster preparedness activities and increase their understanding of DRRM;
2. Support the provision of alternative livelihood opportunities to increase their income that can be used as a disaster emergency fund;
3. Develop techniques and solutions that will safeguard the community from threats of erosion;
4. Develop practical and suitable house design that increases the climate resiliency of the communities;
5. Provide education support to the fishermen children thereby reducing future vulnerabilities.



CYCLONE SHELTER AND TRAINING CENTER



Minimum requirements for making a disaster ready community

- Functional Village-level Disaster Management Council
- Well-equipped cyclone center with disaster safety and security equipment
- CMDRR trained and educated local community
- Community contingency plan
- Effective early warning system
- Emergency disaster fund
- Embankment protection
- Climate adaptive house design
- Alternative livelihood opportunities



Disaster Ready Community Policy contributions



Response to Sendai Framework for the pursuit of global Disaster Risk Reduction (DRR) and building community resilience

Disaster risk reduction and emergency response is integrated into the Disaster Management (DM) policy and practice in Bangladesh as articulated in the vision of the Government and in recognition of the Sendai Global Framework, which is translated into practice in the mission of the Ministry of Disaster Management and Relief (MoDMR).

The significance of DM and resilience building is enormous in the developmental context of Bangladesh. Considering the changes in the disaster patterns and other factors over the years, preparation and updating of the country's Disaster Management Plan is undertaken on a regular basis in 5-year cycles.

Demonstrating a Disaster Ready Community framework directly contributes to achieving Bangladesh governments' plan for DM. Through this project, a strong relationship is built between Union Disaster Management Committee (UDMC) and Village Disaster Management Committee (VDMC) which serve as key actors to execute the government's policies at the community level.

Overall, the Disaster Ready Community approach fosters for the establishment of local government planning and coordination for development and implementation of a more cohesive and integrated DM plan for the poor and disadvantaged communities in the Sundarbans.

Disaster Ready Community

Core components

This figure shows the important components of a Disaster Ready Community.





2 Established Cyclone and Training Shelter



Does Early Warning for communities



Equipped with DRR safety materials

3 Provide suitable livelihood options



6 Youth participation to champion DRR advocacies

7 Child education support



Disaster Ready Community

Three pillars

Phases of successful Disaster Ready Community

The success of a Disaster Ready Community is anchored on three important pillars. They are:

1. **Preparatory** activities;
2. **Implementation** of project activities to establish a Disaster Ready Community;
3. **Expansion** of project activities for making more disaster ready activity.

The steps involved in the implementation pillars are outlined.

STEP 1



Conduct Disaster Preparedness Activities

- Prepare Community Based Disaster Risk Reduction (CMDRR) Training materials
- Form a Village Disaster Management Committee (VDMC)
- Conduct training CMDRR training program among VDMC members
- Purchase and preserve disaster preparedness materials
- Conduct Village Disaster Risk Assessment
- Develop Community Action plan on CMDRR
- Establish early warning systems
- Identify suitable technology for housing materials and share the climate adaptive housing design
- Establishment of emergency disaster fund

STEP 2



Embankment protection

- Embankment protection through using local technology
- Plantation of 10,000 Mangroves

Disaster Ready Community

Steps for implementation phase

STEP 3



Proper utilization and management of the constructed Cyclone Shelter

- Form a Cyclone Shelter and Training Center Management Committee
- Train up the committee members on how to manage and maintain the Center

Arrange decoration and furniture for a training room in the existing Cyclone shelter

STEP 4



Local community engagement in DRR preparedness and livelihood activities

- Organize training on Fish farming, vegetable gardening, sheep rearing and duck farming
- Land purchasing, pond digging, fencing, seed purchasing, purchasing of duck and sheep and
- house making for duck and sheep.

Market chain development for product selling

STEP 5



Child education support

- Provide Regular education support among the fishermen children
- Develop individual student profile for seeking individual donor



Resilience in a Disaster Ready Community

Resilience, which is the ultimate objective of a Disaster Ready Community was greatly demonstrated in a community that is prone to disasters such as in Jelley Polly village in Mathurapur. Through this initiative, it was noted that resilience will only be fully realized by first addressing the integrated environmental and socio-economic problems in a disaster vulnerable community. ...

The outcome stories in this intervention are described through direct testimonials from the communities. Each story are strong manifestatons of their increased knowledge on DRR which led for risk reduction and being resilient.

Aziz Sheikh

Disaster preparedness knowledge reduced disaster risk



I am Aziz Sheikh, a member of Mathurapur Village Disaster Management Committee (VDMC). Through the CMDRR training, I learned some techniques for reducing disaster risk. We learned to assess disaster vulnerability of an area and realize which families are in most vulnerable position, what disasters generally occur, and what are our capacities to manage.

We have particular duties in our committee. My duty is to contact the ambulance, fire brigade, Union Disaster Management Committee (UDMC), Red Crescent Society and many other.

We did not face any big disaster after the training yet; last year when cyclone Titli occurred, we raised disaster flags and warned people with megaphone.

We were ready to face cyclone Titli; so, there was no loss. Although we had no knowledge about disaster preparedness in the past, we are now ready to face disaster.

Joydip Sardar VDMC and emergency disaster fund reduced risk



I am Joydip Sardar. I live in Mathurapur. We live very close to the Sundarbans so natural disaster occurs here.

In the past, we do not know how to reduce disaster risks together. There was no Village Disaster Management Committee (VDMC) and we do not know what it does. It was a unique idea to us.

We formed a VDMC to reduce our disaster risks. Now there are 30 members in our committee.

Generally, after disaster we used to suffer a lot. To meet our immediate needs then, we established an emergency disaster fund and every month altogether, we save 6000 BDT in the fund.

With our emergency disaster funds, we are confident that we can reduce disaster risks in the future. We feel safe and ready!

Aruti Barui

Climate-adaptive house is safer and can accommodate more people



My name is Aruti Barui. I live in Mathurapur village. Our houses are not so strong. It can be destroyed anytime in cyclone and flood.

We always remain in anxiety. It is really hard for us to make new houses due to our poverty. Our houses were destroyed twice during Cyclone SIDR and AILA. We couldn't recover from that loss yet.

We have learned the technique in making a climate-adaptive house. Constructing the house is also cheap, yet very strong. The house is extra ordinary because more people can stay in a small place where vegetable and flower can be cultivated beside the house.

Apart from that, using this house earning is possible through home stay tourism. Most of us are thinking to make such house.

Thakur Pada Sardar Youth plays a vital role in reducing disaster risks



My name is Thakur Pada Sardar. I am a member of Mathurapur Village Disaster Management Committee (VDMC).

We learned that disaster preparedness can reduce loss and damage from disaster. Our responsibilities are clearly defined in the committee.

The youth's job is to bring children and old people to cyclone center safely before disaster and help them to go back home after disaster.

Although we haven't faced any big disaster yet since the training, we are now absolutely ready to face future disasters because of the learnings we received.

Vanumote

Early warning reduces disaster risks



My name is Vanumoti. I live in Mathurapur village of Munshigonj union of Satkhira district. I am a fisherman. I run my family by harvesting shrimp fry from the Sundarbans river.

We pass our life fighting with different natural disasters. In the past, we didn't have any disaster preparedness knowledge and we had to suffer a lot. After every disaster, it is impossible for us to repair our houses with our small earning. We were helpless.

BEDS supported us in acquiring Disaster Risk Reduction training. We learned about the flag signal, dry food-taking before going to cyclone shelter, preserving valuable things in safety box, and many others.

So, our disaster risk has reduced. We are now ready for disaster.

Kabita Rani

Protected embankment saved our village from erosion



I am Kabita Rani. I live in Mathurapur on the river bank. Poverty and river erosion is very dangerous for us.

In coastal region, river erosion occurs around the year. We are always worried. Every night we feared that today our house might go into river. Whenever we go to the river or outside for work, we feel very worried for our children and family members.

For embankment protection, BEDS introduced bamboo piling to protect our houses from erosion. We planted mangrove after piling so that the soil become strong. Few days ago, a part of road in front of our village got damaged due to river erosion.

If BEDS did not put piling in our village, our houses could go into the river. Now we are free from worried for river erosion.

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