

Department of Disaster Management, Government of West Bengal

Project Summary

The Sundarban Delta Complex which has geo-genetic link to the tectonic Bengal Basin known for its startling coastal landforms that include back dunal mudflats, back swamps, saltmarshes and tidal creeks enshrouded with mangrove vegetation, low gradient supratidal and intertidal shores with mud bank, swales and berms, rivulets, tidal flats etc. However despite the mind boggling floral and faunal diversity Sundarban is very much vulnerable to natural hazards e.g. storm surge, flood, tidal wave, cyclone etc. Moreover due to rising sea level, the existing coastline is retreating at alarming rate which is symptomatic to some impending natural catastrophes. The inhabitants of the Sundarban estuary probably have acclimatized themselves how to live on facing the nature's wrath. Sundarban is still recuperating from the brunt of Cyclone Aila that devastated thousands of hectares of once fertile agricultural land adjoining the mangrove forests into a wasteland. The loss of human life and property is beyond any estimation in real terms. The aftermath of these kinds of cyclones and storm surges is on the livelihood of the people at large as due to the ingress of saline sea water into the lush green fertile fields used for paddy cultivation, these tracts of land rendered useless for any kind of agricultural activities.

The ICZM Project understands that fructification of the project can be done only when the people living on the vulnerable coastal zones can be safeguarded to a certain extent from the natural calamities like flood, cyclone, hail storm, thunder squall and sometimes even to tsunamis that occurred due to geo-morphological, climatic and seismic conditions.

Department of Disaster Management, Government of West Bengal has been entrusted with the construction, operation and maintenance of the proposed Multi-Purpose Cyclone Shelters (MPCS) as envisaged in the ICZM Project. The estimated cost of the project is 32 crores. Department of Disaster Management has been assigned this project component because it plays a pioneering role in establishing necessary systems, structures, programs, resources, capabilities for reducing disaster risks in the State in order to save human lives and property, avoid disruption of economic activity and damage to environment and also to ensure the continuity and sustainability of development.

The construction of MPCS will not only pave the way for increase the communities resilience during calamity, but also opening avenue for social coordination and enhanced the capacity to shoulder responsibility by operating the shelters in a gainful pro-social way.

The MPCS has a multi-pronged approach in catering to the needs especially of the disadvantaged sections of the populace through a string of activities such as:-

1. Minimization of loss of lives, property and livestock by providing it shelters during cyclone calamity
2. MPCSs will act nodal points for receipt and dissemination of cyclone warnings
3. MPCSs will provide the warehousing facilities of essential stocks/ items for post disaster usage
4. The nodal points for carrying out post disaster response and relief activities will be from MPCSs
5. MPCSs will also provide temporary protection from the heavy downpour during the monsoon and also from the scorching heat during the summer to the shelter less people
6. Basic health services like immunization programmes can be administered through these MPCSs
7. MPCSs will acts models for safe construction in vulnerable seismic zones.

The basic design of the MPCSSs are that it will be of 3-storied building with stilted ground floor without any wall for keeping the rescued livestock during disaster times. The construction of the MPCSSs will be done keeping in mind the hydrostatic and hydrodynamic forces that may be exerted upon the MPCSSs whenever such eventualities arise. The proposed MPCSSs will have separate living area, drinking water and toilet facilities for men and women. Water would be pumped to tanks on roof top in normal course and also prior to occupation in case of a disaster warning. Bore well with hand pump will be provided near shelter in villages having no piped water supply scheme. MPCSSs will be equipped to provide facilities for basic medical relief during and after the disaster. MPCSSs will also have separate allotted spaces for keeping valuables and household treasure troves. The MPCSSs will also be equipped with kitchen utensils and 'gas chula'. MPCSSs will also be fortified with necessary equipment whose requirements are high during the time of cyclones, storm surges etc. such as:-

- ◆ Generator Sets
- ◆ Light & fans
- ◆ Life Buoy
- ◆ Life Jacket
- ◆ Rope
- ◆ Stretcher
- ◆ Telescopic Aluminum Ladder
- ◆ First Aid Box
- ◆ Fire extinguisher
- ◆ Notice Board
- ◆ Black Board
- ◆ Solar lantern
- ◆ Inflatable Tower Light
- ◆ Portable Power Saws
- ◆ Siren
- ◆ Hand Held Mega Phone
- ◆ Flexi-water tank with 200 lit. capacity
- ◆ Hand Held Search Light
- ◆ Foldable stretcher
- ◆ Free Power Radio
- ◆ Water Filter
- ◆ Foldable Stretcher
- ◆ Steel Almirah
- ◆ Repair Kit (Shovel, Trowel, Kadei, Hammer, Chisel)
- ◆ Rescue Kit

There will be MPCSS Beneficiary Committees (MPCSSBC) comprising of the elected member of Gram Panchayat and four/five other local persons for each of the MPCSSs for keeping constant vigil on the quality of materials and construction.

Operations & Maintenance of Proposed Cyclone Shelters

It is proposed that, after construction, the management of the cyclone shelters would be entrusted to the District Magistrates, who, in their turn, would hand over those to the Block Development Officers. The BDOs will hand over possession and maintenance to MPCSS Maintenance Committees (MPCSSMCs) comprising the elected member of Gram Panchayat and four young and energetic villagers. In cases where the shelter is proposed to be used as a School, it shall be entrusted to the Department of Education. Gram Panchayats will form Multi-purpose Cyclone Shelter Management Committees in respective villages and that will be intimated to the concerned BDOs for incorporating their names in a register. The MPCSSMCs will be in charge of day-to-day maintenance and monitoring of the shelters in those sites which will not act as schools. The committee will

collect suitable maintenance fees from the users by putting them to economic use for social functions and community based socio-cultural activities such as:

- Community centre for functions on a rental basis
- Anganwadi centres
- Artisan complexes
- Integrated service delivery centre for the activities like training programmes, group meetings of youth, men and women
- Health camps
- Veterinary camps
- Welfare hostels

Wherever the asset is utilized by the Department of Education to operate as primary schools, the maintenance activities, standard security measures and drills will be carried out by the Head teacher of the school. In other cases where the MPCSMCs operate and maintain the asset, the responsibility of security and maintenance measures will be carried out by the Block Development Officers. The costs towards such measures and maintenance will be drawn from the regular operational budgets of the Department of Education and Disaster Management, as the case may be.

Corpus fund for maintenance

For sustainable maintenance of the shelter buildings, it is proposed that a corpus fund of Rs. 3,00,000/- per shelter will be created. The corpus fund will be kept in a fixed deposit scheme with a locking system for three years in the nearest nationalized bank or post office in the joint account of the MPCSMC. The MPCSMC cannot withdraw the amount or the interest accrued for first 3 years. After 3 years, the capital and the interest will form the capital for the next term of deposit. The interest accrued from the said deposit only can be withdrawn by the MPCSMC in the 6th year and be spent for maintenance of the building. The committee cannot withdraw the principal amount at any point of time and without prior permission of the concerned district magistrate. They can only utilize the annual interest accrued on the deposit and can spend along with the users fees collected towards maintenance of the MPCSSs. The unspent interest will be deposited in the joint account for expenditure in the subsequent years.

Capacity Building

The Department of Disaster management has also been embarked upon to conduct some training sessions which will help in mitigating the risks owing to the occurrence of natural hazards to a certain extent. The Search and Rescue training will be as per the standardized specification of Civil Defence Organization in the State. The First Aid training will cover all the major aspects of first-aid techniques. The training format will be as per the specification of Indian Red Cross Society and St. John Ambulance and the training will be imparted by the trained lecturers of the aforementioned organizations.

Teachers will be sensitized on basic disaster preparedness aspects and school safety measures to disseminate information to the students. School Education & Mass Education Departments of the government of West Bengal will be requested to keep at least one hour of time in a week for the students of high schools for disaster awareness generation.

The local NGOs and CBOs will be involved in the public interactive platform component for creating mass awareness. Display of educational video films and posters pertaining to natural catastrophes will be publicized at the community level. The NGOs will be chosen in consultation with State Inter Agency Group, West Bengal. District Magistrate, South 24 Parganas, will be the mainstay in this programme for conducting all trainings in the district smoothly and in a structured way. Three-tier Panchayat Raj Institution will be fully involved along with the district administration for better coordination in the field level activities to be taken up under the programme.