

- Construction or retrofitting of existing infrastructure to withstand common extreme weather events

Such resilient infrastructure could be designed and set up by villages with support from the local government and grass-root organisations.

Disaster response and preparedness plan



Disaster preparedness and response measures seek to avoid or reduce the loss of life and damage to infrastructure and to provide an immediate response to the natural disaster. The coastal villages should do the following to be disaster prepared.

- Prepare emergency and evacuation plan
- Evaluate and revise contingency plans regularly
- Identify and establish emergency shelters and accommodations
- Conduct regular disaster preparedness drills and exercises
- Participate in training and awareness building activities on DRR and climate change
- Establish micro-insurance plans/ schemes
- Create SHGs and village level disaster response team/ committee



Keep your Village Resilient

We⁴ Climate

Climate Literacy and Marine Litter Management in the East Coast of India

Building Community Resilience and Disaster Preparedness



Weather monitoring and warning system



Ecosystem-based measures and bio-shield



Climate-resilient infrastructure



Village disaster response and preparedness plan



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Building community resilience

One of the most significant impacts of climate change is increase in the frequency and intensity of extreme weather events in coastal regions. The East coast of India, particularly coastal villages, is highly vulnerable to extreme weather events such as floods, cyclones, storm surges, heat waves and droughts. These weather events wreak havoc on the lives, homes and livelihoods of the coastal communities.

Therefore, it becomes essential to build the resilience of coastal villages and communities and enhance their capacities to adapt to the impacts of climate change. Appropriate risk reduction, preparedness, and response measures must be taken at the individual and community level, involving key stakeholders and taking into consideration the indigenous knowledge of people in the region. A comprehensive resilience strategy includes a combination of structural and non-structural measures as well as anticipatory and reactive measures. Anticipatory or planned measures are proactive and preventive against climate change impacts that are not yet observed but are expected in the future, while reactive measures are in response to existing impacts of climate change.

Measures to make village disaster resilient

Ecosystem-based measures



Coastal ecosystems such as mangroves and coral reefs are a natural buffer and protection for coastlines against flooding, storm surges and cyclones. The coastal community, along with the local government and community organisations should carry out activities to restore such natural bio-shields. The activities could include conservation, restoration and afforestation of mangroves, protection and restoration of coral reef and sea grass beds, and restoration of coastal sand-dunes and intertidal zones. The natural bio-shield along with protecting the coast against disaster and extreme events, would also help check erosion and salt water ingress.



Weather monitoring and warning



Weather monitoring and early warning systems can provide timely forecasts and warning against extreme weather anomalies which will help improve preparedness and enable prompt evacuation and relief response. The administrative bodies of coastal villages should ensure that they have access to weather data and warning system through weather monitoring stations, weather buoys, flood and cyclone early warning system, along with loudspeakers and sirens, and community radios for disseminating warning messages.

Coast guards could help in monitoring and issuing regular weather advisories to coastal communities. During the course of extreme event and disaster, the coast guard also helps in early evacuation and risk management. Furthermore, it is advised that the coastal community should be in touch with the administrative staff for regular updates and monitoring.



Climate-resilient infrastructure



To decrease the vulnerability of coastal villages, the existing infrastructure should be more resilient to natural disasters, and other preventive infrastructure should be built so as to minimise the impacts of the disaster on human and natural systems. Some of the examples of resilient infrastructure are:

- Dyke, sea-wall and tidal-barriers
- Bunds and embankments to limit flood water and erosion
- Improved drainage infrastructure
- Construction and maintenance of storm and cyclone shelters

