

Cyclones and Odisha

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Why are Cyclones frequent in Odisha?

Odisha is particularly vulnerable to cyclonic activity due to its geography and topography. In the Bay of Bengal region, tropical cyclones tend to travel upward in the northwest direction, due to the shape of the Indian sub-continent. Because states on the east coast of the country have relatively flatter land, as compared to the west coast, it doesn't allow for much deflection of the wind. Moreover, Odisha lies at a place in India's coastline where it curves, making its location an easy target for storms and

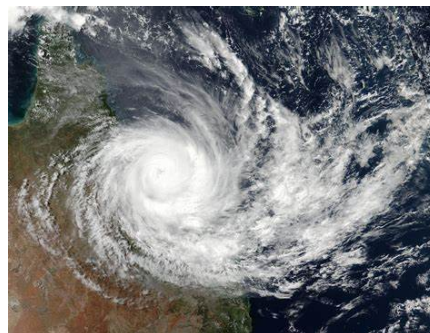
cyclones. In addition, the Bay of Bengal also gets cyclones formed over the Pacific Ocean, where there is no landmass that is big enough to stop them. The Bay of Bengal also happens to be much warmer than the Arabian Sea with many more storms brewing over it, compared to the Arabian sea.

How has Odisha been impacted and how has it improved?

Since the 1999 cyclone, a lot has changed in Odisha. Improved disaster preparedness, better weather forecast, and early evacuation have meant that the state has been able to reduce damage caused due to cyclones. However, the state continues to weather storms and cyclones with property loss due to these events steadily growing every year for the last few decades due to climate change.

In terms of bringing down the number of lives lost and the people getting affected, the state has done well. Odisha took a conscious decision and gradually built upon its capacity, particularly

at the community level. It has successfully started community-level warnings, built multi-purpose cyclone shelters under National Cyclone Risk Mitigation Project, and built an Early Warning Dissemination System with last-mile connectivity. The capacity to deal with natural disasters has increased tremendously at the community level.



What Solutions are being implemented currently?

Odisha is the first Indian state to have an early warning system in place for natural disasters such as cyclones and tsunamis for people living along its 480 km-long coasts. The EWDS is a full-proof communication system to address the existing gap in disseminating disaster warnings by strengthening the emergency operation centers in the state. As part of the system, watchtowers have been set up at 122 locations within 1.5 km from the coastline for dissemination of cyclone or tsunami warning through sirens and mass messaging.

The specially designed multi-purpose cyclone shelters built on high stilts have also ensured

that loss of lives is minimal even during sea surges and persistent water-logging. The 1999 cyclone led to massive sea surges with water ingressing up to 20 km, gobbling villages. But learning from its failures, Odisha has built a network of such shelters along the coastline. It now has a network of over 870 cyclone and flood shelters that can house 1000 people each. Over 450 cyclone shelters have maintenance committees where youth have been involved and trained for search and rescue, first aid medical attention,

and providing cyclone warnings. The state has raised 20 units of the Odisha Disaster Rapid Action Force (ODRAF) which comprises highly trained personnel with multi-disaster tackling capabilities. Equipped with various sophisticated equipment required for disaster management, including road clearing equipment, boat, inflatable tower light, generator, hydraulic rescue kit, CSSR kit, manikin, high discharge submersible pump, Flexi tent, Flexi water tank, diving equipment set and breathing apparatus with a gas mask.

The force is well-trained in tackling floods, building collapses, cyclones, and biological and nuclear disasters.

After the recent insurgence of cyclone Yaas, the Odisha government has asked for further long-term solutions to the repeated cyclone attacks, denying any immediate temporary relief, which include a disaster-resilient power infrastructure and a permanent solution to protect the coastal region from cyclones.