

Impact of the cyclonic storm 'Phyan' on marine fisheries along the Sindhudurg coast of Maharashtra

Bashir Ahmed Adam Shiledar, Punam A. Khandagale and Veerendra Veer Singh
Research Centre of CMFRI, Mumbai

During the month of November 2009, coastal districts of Maharashtra were severely hit by a cyclonic storm 'Phyan' that devastated the coastal structures and adversely impacted marine fisheries and allied activities. This cyclonic storm developed as a tropical disturbance, south-west off Colombo in Sri Lanka on 4th November, 2009. Over the next couple of days the disturbance gradually developed before weakening, as it made landfall on southern India on 7th November. After the disturbance emerged into the Arabian Sea, it rapidly became more marked and early on 9th November, the India Meteorological Department (IMD) reported that the disturbance intensified into a depression and designated it as Depression ARB 03.

The Joint Typhoon Warning Centre (JTWC) issued a tropical cyclone formation alert. Later that day the JTWC designated the system as Cyclone 04A that was likely to hit coastal districts of Maharashtra viz., Sindhudurg, Ratnagiri, Raigad, Thane and Mumbai. During the next day, the depression turned towards the north-east (Fig. 1).

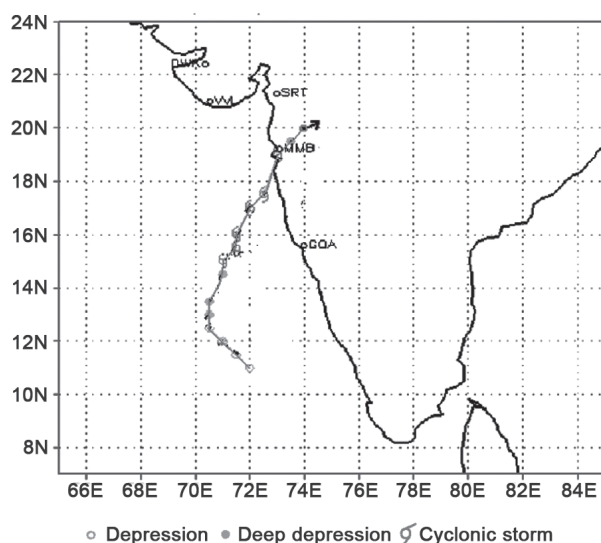


Fig. 1. Track of cyclonic storm, 'Phyan' during 09-12 November 2009

The cyclonic storm severely affected the marine fisheries of Sindhudurg district (Fig. 2) at three major places viz., Vengurla, Malvan and Deogad, causing loss of boats, fishermen and vast destruction.

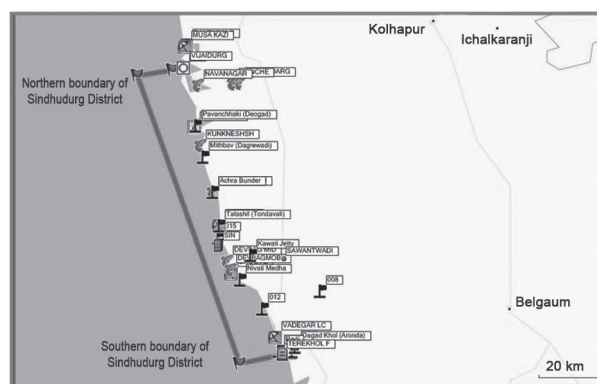


Fig. 2. Major fishing villages along Sindhudurg District, Maharashtra

The cyclone hit Sindhudurg at 02 00 hrs on 11th November 2009. The cyclone entered from Goa coast with a speed of 60 to 70 km h⁻¹, first at Vengurla Taluka, followed by Malvan and Deogad coastline. Cyclone affected fisher population of Shiroda, Aravali, Mooth, Ubhadanda, Navabag, Dabhoswada, Kelus, Khavana and Nivati. In this region, 40 fibre boats and 2 rampan hodi were broken and several fishing nets were washed away in the sea (Fig. 3a, b and c). Protective weir was washed away at Kelus (Kalvi).

The cyclone hit Malvan area at about 02 30 hrs and it affected the entire coastline (Fig. 4a, b, c). Fishermen could not save their vessels due to high tide and darkness. Cyclone lasted for almost 6 h. Five trawlers were completely broken and washed ashore. A total of 60 fibre boats were broken and 3 rampan as well as 600 fishing nets were washed away in the sea.

In Deogad, totally 5 fibre boats gone for fishing were missing with 13 crew members. Out of these, 3 boats were from Deogad and 2 from Vijaydurg. Cyclone caused heavy destruction in the area,



Fig. 3. Coastal destruction caused by the cyclone 'Phyan' along the Vengrula coast in Sindhudurg district



Fig. 4. Coastal destruction caused by the cyclone 'Phyan' along the Malvan coast in Sindhudurg district

uprooting trees and damaging houses. Two fibre boats gone for fishing from Deogad reached shore, one named 'Muktai' at Ratnagiri with three members safely, while another boat named Madhupriti reached Harne (Ratnagiri).

As a precaution, all trawlers from Malvan were retained at Deogad (Anandwadi) upto 18th November

2009, for safety. Because of collapsed trees and electric poles, the electricity supply was disrupted for about 18 h in all the three talukas. In all the three talukas, Phyan made havoc causing heavy financial losses. However, State Government provided financial package to the affected fishermen to compensate losses.