

# Protecting marine animals and fishermen with FFMA

Fisher Friend Mobile Application helps to conserve the endangered Olive Ridley Turtles and guides fishermen along the Odisha coast

## No Fishing Zone alert

### Context ●●●

The endangered Olive Ridley Turtles along Odisha Coast needs protection. It is an important site for millions of marine Olive Ridley that migrate from faraway places for mass nesting. This is an annual phenomenon, and therefore mechanised and motorised fishing are banned from November 1<sup>st</sup> of given year to May 31<sup>st</sup> of the following year (seven months) vide Odisha Government Notification No. 12312 dated 12.11.2014. Fishermen are however unable to identify the marked area in the sea and usually infringe into the no-fishing zone, resulting in penalties.

To strengthen conservation efforts by Government of Odisha and also to address issues raised by small-scale fishers in the state, MSSRF launched the new version of FFMA 5.0 in October 2021, adding the "No Fishing Zone" alert feature jointly with the Fisheries Department, Government of Odisha, in consultation with key stakeholders.

### ●●● Intervention

Fisher Friend Mobile Application (FFMA) is an android application developed by MSSRF in collaboration with Qualcomm Wireless Reach and Indian National Centre for Ocean Information Services (INCOIS).

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FFMA delivers messages to fishermen in vernacular languages on wave height, wind speed and direction, also potential fishing zone, GPS for safe navigation, marking marine resources and risks zones, dragging a fish net area, emergency contact numbers and government schemes.

A formal collaboration was established with the Department of Fisheries, Odisha. The No Fishing Zone alert was developed for offline mode with geo-fencing of turtle congregation areas and buffer zones along three river mouths of Odisha (Dhamra, Rusikulya and Devi), also the Gahirmatha Marine Wild Life Sanctuary, to alert the fishermen at sea. FFMA was updated with a feature that sends alerts to the phone every time a fisherman approaches within 200 m of any of the four no-fishing zones along the Odisha coast.

### Turtle congregation zones

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FFMA  
V 5.0



## Outputs



FFMA is free to download, and even without cellular network, fishermen will be alerted about the boundaries of turtle congregating zones. Boat owners and crew can download the application on their mobile phones and by becoming aware about their geo-coordinates, they avoid fishing ban areas of Bhitarkanika Wildlife sanctuary, Devi, Dhamara and Rushikulya river mouths designated for Olive Ridley conservation. To ensure that the fishers hear it over the sound of the waves and the general noises on the boat, the App activates a booming alarm with a vibration alert as well as a flashing notification on the screen.

This feature works even when FFMA the app is in offline mode so fishers do not have to depend on mobile connectivity at all. In the last nine months, MSSRF and the Odisha Government's Department of Fisheries has evangelised this feature across all villages around no-fishing zones, ensuring the App is downloaded and fishers are trained to use it correctly.

FFMA's journey began with a modest number of 40 users in Tamil Nadu and Puducherry; now eight coastal states and one Union Territory use the App, benefitting over 89705 users across 66 coastal districts in India.

## Outcome

The new feature on FFMA protected not just the Olive Ridley Turtles, but also the fishermen in Odisha because it advises on potential fishing zones, ocean state forecast, and harbour navigation, also alerting them ahead of impending natural disasters. The application has brought relief to the fishermen's community in Odisha, thereby facilitating the government's effort to ensure an effective management system for the conservation of Olive Ridley. Since the No Fishing Zone feature was introduced, FFMA has seen a sharp rise in the number of downloads and the alert has been triggered more than 3300 times, and prevented entry of fishermen in and around the Turtle congregation zones.

“ In the last nine months, MSSRF and the Odisha Government's Department of Fisheries has evangelised this feature across all villages around no-fishing zones, ensuring the App is downloaded and fishers are trained to use it correctly ”

To download  
FFMA



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