

# CONFLICTS AND CONSENSUS OVER SEA TURTLE CONSERVATION IN ORISSA, INDIA

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## THE RIDLEYS OF ORISSA

Olive ridley turtles nest on both coasts of India and the offshore islands. Orissa, on the east coast of India, has three mass nesting sites for the ridleys at Gahirmatha, Devi River mouth and Rushikulya River mouth. The ridleys nesting in these locations are a part of a distinct genetic population that nests along the eastern Indian coast (Shanker et al., 2004). The turtles arrive in the coastal waters of Orissa in October and mating takes place in the near-shore waters till January. Nesting occurs between December and April with a peak in February and March.



## Threats to olive ridley turtles in Orissa

- Turtle mortality off the Orissa coast has been alarming, with figures averaging 10,000 to 15,000 every year since 1999.
  - Total mortality figures for the past decade are now well above 1, 00,000.
  - Incidental catch in fishing nets is a well-known threat to the ridleys.
- Much of the mortality is attributed to drowning in trawl nets (Pandav, 2000, Shanker et al., 2004, Wright and Mohanty, in press). Recent accounts suggest that gill nets may also cause large-scale mortality (Wright and Mohanty, 2002).
- Other threats include *Casuarina* plantations along nesting beaches which causes loss in nesting habitat and artificial illumination from towns and highways at the Rushikulya site (Pandav et al., 1998).
- Proposals for commercial ports and other large-scale anthropogenic activities near the mass nesting beaches are likely to pose a threat to this population as well.

### Incidental catch

### Fishing craft of Orissa

### Diverse fishing nets



## DEVELOPMENT OF A STALEMATE

### The current labyrinth of conservation measures

- Conservation measures in the State consist of a combination of species protection and habitat protection.
- The mass nesting beaches and the offshore waters in their vicinity are accorded protection, which comprises primarily of fishing restrictions.
- The rookery at Gahirmatha and its coastal waters has been declared as a Marine Sanctuary
- The are fishing restrictions in the offshore waters of the Devi and Rushikulya rookeries

Figure 1. Sea turtle conservation measures in Orissa



### Date Sea turtle conservation regulation

Date	Sea turtle conservation regulation
<b>Species Protection</b>	
1972	Introduction of the Indian Wild Life Protection Act (WLPA). The olive ridley turtle is currently listed on Schedule I, which affords maximum protection under the Act.
<b>Fisheries regulations</b>	
1982 – 1983	Orissa Marine Fisheries (Regulation) Act (OMFRA), 1982 and Rules, 1983 introduced.
1983	OMFRA Rules introduced. It outlined different fishing zones for different fishing crafts.
<b>Habitat Protection</b>	
1994	OMFRA: Biennial orders prohibiting fishing at Gahirmatha. Reissued periodically. (Seen as an arc in Figure 1)
6.06.1997	OMFRA seasonal prohibition (Jan-May) on fishing by trawlers at Devi and Rushikulya for a 20 km seaward distance. Reissued periodically. (Seen as rectangles in Figure 1)
27.09.1997	Declaration of the Gahirmatha Marine Sanctuary (GMS) under the WLPA.
10.10.2003	State High Power Committee (HPC) recommends that the State Government consider proposals for the Devi and Rushikulya areas to be declared as Wildlife Sanctuaries.
<b>Fishing Rights</b>	
21.05.1998	State HPC issues restrictions on fishing within the Gahirmatha Sanctuary.
<b>Fishing Gear Regulation</b>	
6.12.1997	OMFRA order mandating use of Turtle Excluder Devices (TEDs) on trawlers.
17.04.2001	OMFRA Rules mandating that 'mechanised fishing vessels' should use TEDs.
<b>Judicial intervention</b>	
7.03.2003	Interim orders on sea turtle conservation from the Central Empowered Committee (CEC) constituted by the Supreme Court of India. Issued a blanket ban on gill nets in all coastal waters in the three rookeries.
7.04.2004	Revised CEC directions on fishing regulations lifting the blanket ban on gill nets.

## Conflicts between fisheries & turtle conservation



### Problems with sea turtle conservation in Orissa

- Marine sanctuary designs lack the flexibility required for marine ecosystems and user-groups
  - Inadequate research back up existing conservation measures.
- Existing research findings (such as on reproductive patches) are not used by government authorities in designing conservation programmes.
  - Protection measures are not designed to afford the turtles optimal protection.
    - Lack of a participatory approach in designing conservation measures.
    - Unreliable data on fisherfolk and fisheries.
  - Blanket bans issued with a poor understanding of fishing practices.
  - No process of settlement of rights when imposing fishing restrictions.
- Poor attention to implementation details such as issuing permits for passage in the sanctuary.
  - Conflicts between fishing (trawling) community and conservationists is heightened by the narrow approach of conservation groups and the Government, lack of dialogue, media portrayal of the former as villains of the piece; simultaneously, the latter refuses to accept responsibility.

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- Members of the OMRCC



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## FROM DISCORD TO DIALOGUE

Generally speaking, stakeholders in the turtle-fisheries scenario in Orissa are perceived as being either "pro-turtle" [or anti-people] or "pro-people" [or anti-turtle]. The traditional and mechanized fishworkers have, in separate forums, articulated their perspectives on the existing turtle conservation measures

### Perspectives of the trawler industry

- TEDs result in high catch-loss and are economically unviable.
- Indigenous devices should be designed with minimal catch – loss.
- Prohibited fishing areas should be clearly demarcated.
- Fishing in the Gahirmatha Marine Sanctuary should be permitted in the non-turtle season.
- Arrest and penalisation procedures should not be ambiguous and arbitrary.



### Perspectives of the traditional fisherfolk

- Traditional fishermen must be made partners in conservation efforts at all levels.
- No traditional fishing gear should be banned without adequate and scientific study and data.
- The Orissa Traditional Fish Workers Union (OTFWU) will voluntarily ban 3 types of nets that trap turtles.
- A more holistic marine conservation approach should be adopted by the State.
- Benign fishing practices should be allowed in the Gahirmatha Marine Sanctuary.



Throughout the last decade there has been no conducive platform or space whereby the turtle-fisheries stakeholders can work together on a sustained basis to address important problems with turtle-fisheries interactions. This only exacerbated misconceptions whereas there could have been a better understanding of issues through dialogue.

## The Orissa Marine Resources Conservation Consortium (OMRCC) – an initiatives towards consensus

In December 2004, divergent groups comprising of conservationists, biologists, fisherfolk, NGOs and other interested persons met to form a voluntary and non-official sea turtle conservation consortium in Orissa, which would be beneficial to both conservation as well as livelihoods. ATREE helped facilitate the formation of this group. A Support Group was also formed comprising of NGOs and individuals working on turtle conservation & fisheries to coordinate and support participatory efforts on turtle conservation.

### Members of the OMRCC

- Representatives from the traditional fishworker unions, primarily the OTFWU
- Local marine conservation NGOs such as Operation Kachhapa
- Representatives from marine fishworkers' cooperative societies
- Marine scientists, turtle biologists, fisheries experts
- Marine resource conservation and management experts

### Mission of the OMRCC

'To ensure sustainable use of marine living resources and livelihoods'.

### Objectives of the OMRCC

- To reduce and prevent the over exploitation of marine resources of Orissa.
  - To protect the rights of the traditional fisherfolk in Orissa.
- To define the rights, resources, responsibilities & roles of various stakeholders in marine conservation in Orissa.
- To work towards promoting sustainable livelihoods of traditional fisherfolk in Orissa.
  - To promote and engage in the conservation of threatened marine life in Orissa.
  - To conduct periodic assessments of the effectiveness of sea turtle conservation measures in Orissa.
  - To conduct periodic assessments of the impacts of sea turtle conservation measures on the livelihoods of fisherfolk of Orissa.
- To promote and facilitate collaborative sea turtle and fishery resource conservation actions in Orissa.
- To evolve and promote a common sea turtle conservation strategy developed by various stakeholders represented in the OMRCC.
- To develop conflict management mechanisms to address fisheries and conservation related issues in Orissa.
- To advocate against polluting activities and environmentally unsustainable development practices in the coastal areas of Orissa.
- To define and promote indigenous, innovative technologies for sustainable harvesting of marine resources.
  - To develop eco-friendly indigenous markets for marine resources of Orissa.
  - To liaise with the State Government, NGOs, Central Government, CEC, fishing communities and other policy level institutions and bodies to achieve its objectives.

