

# Olive Ridleys in Orissa Rashoman revisited

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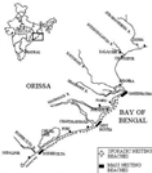

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- Over 6000 km of coastline
- Olive ridley nesting along both coasts
- Greens and Hawksbills in Lakshadweep islands
- Greens, Hawksbills and leatherbacks in Andaman and Nicobar islands



## A global heritage .....

- Three mass nesting beaches in Orissa at Gahirmatha, Devi mouth and Rushikulya
- Current estimates in the range of 100,000 to 200,000 nesting female turtles (Shanker et al, 2004)
- Perhaps a source population for global populations of ridleys (Shanker et al., in press)



## Major threats in Orissa

- ❖Fishery related mortality
- ❖A, modern bulk terminal port at Dhamra, 10 km from Gahirmatha
- ❖Beach lighting, especially at Rushikulya
- ❖Offshore oil exploration
- ❖Habitat loss due to Casuarina plantations




Since 1993, more than 100,000 dead turtles counted along the Orissa coast



## Existing Legal Framework

- Listed in Schedule 1 of Indian Wildlife (Protection) Act, 1972 – maximum protection
- Orissa Marine Fishing Regulation Act (1982) and Rules (1983) prohibits all mechanised fishing within 5 km of coast.
- Gahirmatha Marine Sanctuary (1997) prohibits all mechanised fishing within 20 km of Gahirmatha coast (35 km)
- OMFRA (1997) prohibits mechanised fishing within 20 km of coast in Devi River mouth and Rushikulya from January to May.
- Central Empowered Committee (of Supreme Court) (2003) recommends banning of gill net boats within 5 km of the three mass nesting beaches for three months.



## What the turtle biologists say:

- Reduce mortality
- Protect the reproductive patches
- Reproductive patches may vary in time, both within and between nesting seasons
- Monitor the nesting populations closely
- Census mass nesting accurately
- Research on fishery related mortality – what proportion of turtles strand ?



## What the traditional fishworkers say:

- Voluntary ban on use of certain gears
- Compensation and financial assistance for gear modification
- Stop prawn seedling collection and intensive aquaculture
- Strict implementation of the 5 km ban on all trawlers
- Traditional fishworkers to be made partners in conservation – turtle monitoring committees
- Formation of community reserves



## What the CEC says:

- Reduce mortality
- Protect the reproductive patches
- Enforce the existing laws
- Improve enforcement by improving capacity and infrastructure of local enforcement agencies including Forest and Fisheries Departments, with help from Police and Coast Guard
- Buy more boats and guns



## What the Forest Department says:

- Lack of infrastructure
- Lack of coordination between agencies, including Fisheries Department, Indian Coast Guard
- Declare Rushikulya and Devi River mouth as protected areas



## What fisheries NGOs say:

- Strict implementation of the 5-km near-shore 'non-mechanized fishing zone'
- Protection of reproductive patches
- Regulating/banning the use of certain gear
- Compensation for livelihood opportunities foregone
- Defining rights of safe passage
- Use of VMS and GPS for better implementation and enforcement



## What has gone wrong

- Lack of implementation of existing laws and regulations due to:
  - Lack of capacity in enforcement agencies
  - Lack of clarity for stakeholders about regulations
  - Lack of dialogue between stakeholders – inadequate coordination between enforcement agencies (Fisheries and Forest Department, Coast Guard) and insufficient communication with fishing communities (Artisanal, Gill netters with outboard motors, Mechanised trawlers)
- No stakeholder participation in design of management measures
- Lack of appropriate monitoring and evaluation protocols



## Potential mitigation measures

- Review of management measures (time area closures) in consultation with various stakeholders
- No fishing zones to be determined by monitoring reproductive patches of turtles
- VMS and GPS for monitoring gill netters and trawlers
- Awareness programs for fishing communities to comply with no fishing zones.
- Establishment of monitoring and evaluation by independent research agencies in collaboration with local Forest and Fisheries Departments and NGOs
- Control of development near the mass nesting beaches



## Immediate needs

*Fisheries*

Review and clarifications of all management measures – time area closures  
 Definition of No Fishing Zones near mass nesting areas  
 Consultation with stakeholders

*Development*

Complete ban on development near the mass nesting beaches both onshore and within 20 km of coast



## Long Term Solutions

- Participation of local fishing communities in the conservation programmes
- Involvement of fisheries departments in designing and implementing sustainable harvesting strategies and promoting the use of TEDs
- Formulation of strategies that can protect the turtle along the entire coast rather than within designated sanctuaries



## Towards a new philosophy of sea turtle conservation in Orissa

Compliance rather than enforcement

- Self regulation by the fishing community
- Involvement of sea turtle community in monitoring distributions of sea turtles
- Definitions of No Fishing Zones in dynamic terms during the course of the season
- Independent monitoring and evaluation of indicators of success




## *Towards fair zoning of fisheries to protect artisanal fishers, fish stocks and sea turtles*

- No restrictions on traditional fishing methods
- Ban on certain types of gill nets
- New zoning regulations (table below)
- Rights of safe passage for fishers



### *Recommendations for revised zoning – time area closures*

Type of vessel	Detail	Area	Distance	Time
Trawler	Large	Entire coast	10 km	Year round
	Small	Entire coast	5 km	Year round
IBM Gill netter	Multifilament	Entire coast	5 km	Year round
		NFZ	10 km	Nov – April
IBM Gill netter	Monofilament	NFZ	10 km	Nov – April
OBM Gill netter	> 15 HP engine	NFZ	10 km	Nov – April
		NFZ	5 km	Mass nesting
No motorisation		NFZ	5 km	Mass nesting




### *Towards better monitoring of sea turtle populations and fishing*

- VMS / GPS for gill netters and trawl vessels
- Monitoring by independent agencies of sea turtle nesting and mortality in collaboration with local Forest and Fisheries Departments and NGOs



### *Towards better dialogue and coordination between stakeholders for sea turtle protection*

- Establishment of community reserves at Devi River mouth and Rushikulya with monitoring committees at Devi River mouth and Rushikulya comprising of:
  - o Representative, OTFWU
  - o Representative, Gill netters Association
  - o Representative, Trawlers Association
  - o Representative, Orissa Forest Department
  - o Representative, Orissa Fisheries Department
  - o Representative, Coast Guard
  - o Representatives, local communities
  - o Sea turtle biologist (Wildlife Institute of India)
  - o Fisheries expert (ICFS)
  - o Sea turtle conservation NGO (WSO / WPSI)
  - o Monitoring and evaluation expert (MCBT)



### **Hopeless cause or cause for hope ?**

- Silas (1984) to Pandav (1998) to Shanker (2004) – same old story
- Was the Hype and hysteria useful ?
- Can anything be changed ?
- What ? How ?
- Time for negotiation ?

