

Report of the committee constituted in W.P.(C) PIL No. 7118 of 2021 to the Hon'ble High Court of Odisha as per order dated 26.02.2021.

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The committee consisting of (i) Dr. Kartik Shanker, Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore, (ii) Shri Susanta Nanda, IFS Director, Environment holding additional charge of CEO, Chilika Development Authority, Bhubaneswar and (iii) Mr. Mohit Agarwal, learned Amicus Curiae undertook visit to the two major nesting sites of Olive Ridley -i.e. Gahirmatha Marine (Wildlife) Sanctuary and Rushikulya Estuary. The nesting site at Nasi II (Abdul Kalam Island) of Gahirmatha Marine Sanctuary, the Gokharkuda and Purunabandha beach (the nesting site of Rushikulya Estuary) and the adjoining sea was also visited. The committee interacted with the Wildlife Wing of Government of Odisha and Fisheries & Animal Resources Development Department (F&ARD Dept. for short), Government of Odisha, the local fisherman at both the sites, the Trawler Owner's Association at Dangamal and others. The brief findings of the committee are as below.

Background regarding Nesting beaches: Olive ridley turtles nest in tropical beaches across the globe. However, mass nesting occurs only at a few sites on the Pacific coast of central America (Costa Rica, Mexico, Nicaragua and Panama), Odisha on the east coast of India (Gahirmatha, Rushikulya and Devi) and Andaman Islands. The population in the Bay of Bengal and nearby regions are believed to be the evolutionary source for olive ridleys across all ocean basins.

Given the stable or increasing trends at many nesting beaches, the species status was changed from 'Endangered' to 'Vulnerable' in the IUCN Red List in 2008. However, it was acknowledged that many populations continue to face threats from fishery related mortality and coastal development.

In Odisha, the mass nesting beach at Gahirmatha was discovered in 1974, at Devi Mouth in 1982, and at Rushikulya in 1994. While earlier studies suggested that the populations may be on the verge of a decline, recent monitoring efforts suggest that the populations may be stable (at Gahirmatha) or increasing (at Rushikulya). Based on the monitoring by the Forest Department and other agencies, it may be conservatively estimated that about 100,000 to 400,000 ridleys nest at these sites during arribadas each year. No mass nesting has been observed at Devi Mouth since 1997. It may be noted that olive ridley arribadas may be dynamic in nature i.e. they may change their location over time.

- (i) The mortality of olive ridley turtles has been documented since the 1980s. In the 1990s, Wildlife Institute of India (WII for short) studies recorded between 5000 and 13000 dead turtles along the Odisha coast each year. Since the 2000s, a few thousand dead turtles have been recorded along the coast each year. Since not all the turtles that are killed are washed ashore, and some may

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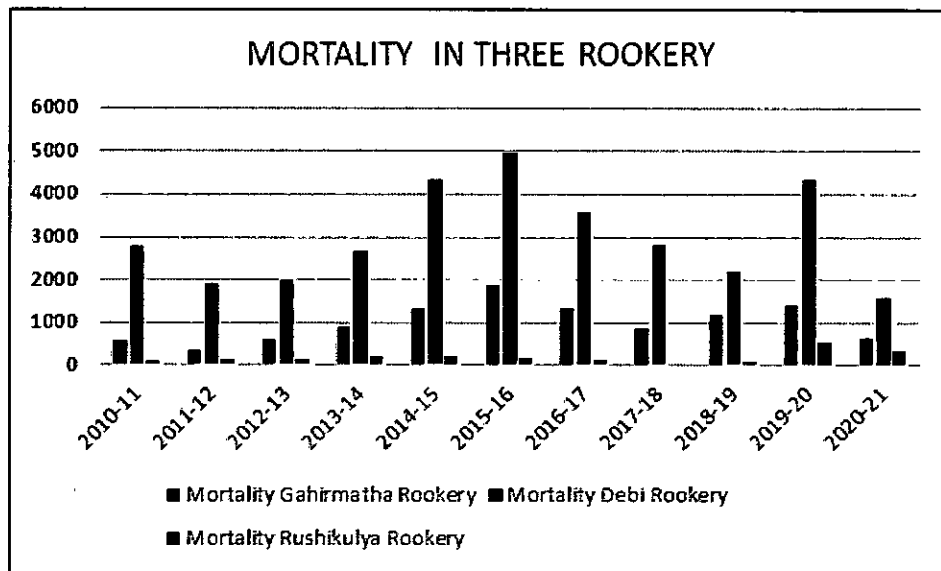
be washed away before they are counted, the total mortality may be higher than documented.

However, at this time, there is no evidence that this mortality is leading to a decline in the population. At this juncture, it may be noted that wild populations are known to recover and increase in number once appropriate management measures and protection is provided. However, long term loss of habitat due to coastal development (e.g. erosion due to ports and harbours) and climate change could cause irreversible damage to these populations.

No carcass of olive ridley was noticed either at the nesting site of Gahirmatha Marine Sanctuary or at the nesting site of the Rushikulya Estuary nor in the adjoining sea where turtles have congregating after mating, during the limited time of visit of the committee. However, the mortality figure of olive ridleys for the last 10 years, furnished by the office of Principal Chief Conservator of Forests (Wildlife) indicates a fluctuating trend in numbers from 2010-11 to 2019-20, with more than 60-70% of the mortality coming from the Devi Estuary alone. It may be estimated that the current mortality continues at the rate of about 4000 to 7000 per year.

The report of wildlife wing is reproduced below:

Olive Ridley Sea Turtle mortality in Odisha Coast from 2010-11 to 2020-21							
<i>Source: Office of Principal Chief Conservator of Forest (Wildlife) & Chief Wildlife Warden, Odisha</i>							
Year	Gahirmatha Rookery		Devi Rookery		Rushikulya Rookery		Total
	Mortality	Percentage of Total	Mortality	Percentage of Total	Mortality	Percentage of Total	
2010-11	577	17	2801	81	95	3	3473
2011-12	353	15	1902	80	127	5	2382
2012-13	615	23	1972	73	130	5	2717
2013-14	888	23	2684	71	215	6	3787
2014-15	1322	22	4357	74	220	4	5899
2015-16	1864	27	4949	71	175	3	6988
2016-17	1348	27	3577	70	154	3	5079
2017-18	880	24	2820	75	39	1	3739
2018-19	1182	34	2216	63	120	3	3518
2019-20	1415	22	4358	69	547	9	6320
2020-21	642	25	1579	61	354	14	2575



The committee needs additional time of another three months to visit the Devi Estuary and the adjoining areas to ascertain the exact cause of high mortality in that area, compared to other areas and to come up with long term solutions for preventing the mortality. The additional time is also required to devise appropriate medium term and long-term steps required to be taken to ensure compliance of the earlier directions issued by the Hon'ble Court and to ensure protection of the olive ridley turtles and their habitats during the nesting season.

- (ii) Fishing vessels are categorized as mechanized, motorized and non-motorized. Mechanized fishing vessels include trawlers, of which there are 1741 in Odisha. Mortality in trawlers has been documented in Odisha and is believed to be a leading cause of mortality for ridleys and other turtles across the world. Some mortality has also been documented in gill nets, especially in longer nets. Olive ridleys may also get entangled in nets used by artisanal fishers, but these turtles may be released upon capture, and usually results in low levels of mortality.

However, the mortality of the olive ridleys along the Odisha coast is attributed mainly due to the trawling operations in the sea as incidental killing due to suffocation in fishing nets of trawlers or by injury inflicted by the propellers of the trawler. Hon'ble High Court of Orissa in their ordered dated 14.05.1998 in OJC No. 3128 of 1994 had directed that all trawlers operating in the area shall be required to use Turtle Excluder Device (TED) to avoid entanglement of sea turtles. It was informed to the committee by the F&ARD Dept. that a number of awareness meetings have been held among the

fisherman for using TEDs and also for awareness on turtle conservation among the fishers.

However, the fact remains that the TEDs have been used more as an exception than as a rule during the last 2 decades as the fishermen do not accept the device due to high catch loss. Additionally, enforcement for using TEDs has been extremely difficult. During the last 5 years alone, 252 trawlers have been seized inside the Gahirmatha Marine Wildlife Sanctuary and 3 in Rushikulya Estuary, but not a single trawler had TED to prevent entanglement of sea turtles. There should thus be a deemphasis on Turtle Excluder Devices. These are typically difficult to install and deploy and as pointed out above, could lead to significant catch loss for the fishers in terms of their profit margins. They can easily be deactivated even after they are installed. It is therefore also very difficult to enforce the use of this device. Given these challenges to use and enforcement, there may be little to be gained by promoting their use at this juncture.

The committee requests for time to analyze this issue in depth to determine the practicality and efficacy of this device. 11-

- (iii) For the current year, turtles have completed mating. Sporadic nesting has started in both the major nesting sites. Mass nesting is likely to occur in the next few days. As a prelude to our recommendations, we would like to state that olive ridley conservation in Odisha has been marked by unnecessary conflict between the state conservationists and fishers. We would like to start by emphasizing that any measures that are implemented should seek to achieve the overall welfare of coastal communities as well as biodiversity conservation and ecosystem health.

The committee is of the view that the following short-term measures are required to prevent mortality of the turtles during the current nesting season, while medium- and long-term measures are being formulated:

- ✓ ■ The enforcement should be focused on areas where turtle nesting congregations actually occur. These are typically within 5 km of the coast, and may stretch for a few km along the coastline, covering an area of ~ 50 km². Since these areas are dynamic and may change over time, brief surveys can be conducted to identify the main congregations, and patrolling can be restricted to these areas.
- The enforcement activities to prevent movement and fishing by trawlers in the prohibited area of Devi River Mouth (Keluni Muhan to New - Devi

Nasi Island North), prohibited as per Notification No12312, dated 12.11.2014 of F&ARD department are to be enhanced by F & ARD department, Forest and Environment Department with the help of marine police stations of the area. Additional force is to be provided to assist them as and when required. The Coast Guard may be directed to enforce the ban stringently in association with Forest and Environment Department. The Union of India may be directed by the Hon'ble Court to co-operate in the matter.

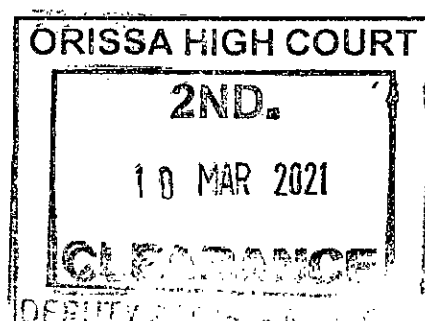
- No fishing zones may be clearly demarcated, and outreach material may be created to provide clarity about the laws and its applicability to different categories of fishers. However, the extent and location of these zones needs to be reevaluated to strike a balance between turtle conservation and fisher needs.
- The nesting beach at Gahirmatha is required to be fenced up at the landward side, at the end of the beach with temporary wire mesh over a length of 3 kms. to protect nesting olive ridleys, eggs and hatchlings from predators like feral dogs, wild pigs, jackals and hyenas.
- Similarly, the temporary fencing existing at Gokharkuda-Purunabandha beach needs to be strengthened to protect the nesting olive ridleys, eggs and hatchlings from predators.
- It was brought to the notice of the committee that there are three marine police stations within the jurisdiction of Gahirmatha marine sanctuary namely Talachua, Tantiapal and Jamboo. These police stations do not have sea going patrolling boats. Provision of patrolling boats with additional force, if need be, may be made immediately to these three police stations to help in protection of the sanctuary through joint patrolling with the Forest Department, so that no trawler enters the sanctuary area.
- Trawlers / Boats seized during turtle nesting seasons in Gahirmatha Marine Sanctuary are allowed interim release by Court of Law which allows them to commit offences again during the season. Hon'ble High Court is requested to issue directives prohibiting interim release till the end of the turtle season. Trawlers of repeated offenders may not be given interim release, till finalization of the case.

- As the boundary of Gahirmatha Marine Sanctuary is clearly defined with geo-coordinates, the boundary can be uploaded in GPS Systems of all fishing boats by F&ARD Dept., so that the movement made by the boats inside the sea shall be recorded. This would help in preventing the boats from entering the sanctuary.
- The financial assistance of Rs7500/- given to the fishermen affected due to the ban on fishing needs to be re-assessed and given to all the fishermen affected by the ban. The committee felt that the assistance is of a small amount and therefore, District Administration may be directed, to engage the affected fishing community in MGNREGA works during the ban period. While larger issues regarding the legal framework are being addressed, efforts should be made to adequately compensate any families that are affected by the current fishing bans.
- The fishermen affected by the ban may also be involved in olive ridley conservation work and in all the related activities like congregation, monitoring and safe nesting of the turtles and be paid by the Forest and Environment Department to avail an alternative source of livelihood during the fishing ban period.

(iv) There is an urgent need to track the trawling activities on real time basis. For that to happen, discussion may be initiated by the State Government with ISRO and the feasibility of installing transponders in all mechanized fishing vessels and trawlers to track them in sea should be worked out. This has been done in Tamilnadu. The Union of India may be directed by the Hon'ble Court to co-operate in the matter.

(v) The committee also verified the facts in the affidavit filed by the State on 26.02.2021 within the limited time of the visit. The committee witnessed both onshore and offshore camps established for protection and monitoring at both the nesting places. The Committee also visited the Babubali offshore camp functioning through-out the year. The trawler provided by Dhamra Port Corporation Limited (DPCL) was observed to be on sea patrolling inside Gahiramatha marine sanctuary. Two units of APR provided by Superintendent of Police, Kendrapada to assist Forest staff during patrolling were present during the visit of the Committee. The Divisional Forest Officer (DFO), Mangrove Forest Division (Wildlife), Rajnagar also provided a list of 30 numbers of boats that have been seized till date for illegal fishing in Gahirmatha Marine Sanctuary during the current nesting season.

The facts stated are found to be substantiated.



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Since the late 1990s, the interaction between fishers and turtle conservation (both with the forest department and conservation groups) has been marked by conflict and hostility. Fishers have stated that the conservation measures significantly affect their lives and livelihoods, especially those of marginal communities. In addition, they have argued that the measures only address one cause of turtle mortality (fisheries) while other threats such as coastal development and pollution are not being addressed. They say that they have been unfairly demonized by the media, particularly the trawlers. Enforcement by the state agencies has also led to the unfortunate deaths of both a fisherman and a Forest Guard in the 2000s.

We would therefore like to emphasize that Fishers should be made partners in marine conservation, since they are also dependent on the sustainability of marine resources. While there may be more specific medium- and long-term steps towards this, we would advocate that the message be conveyed that all stakeholders should work together for the conservation of sea turtles, their habitats and marine ecosystems in general.

The committee prays for additional time for fully ascertaining compliance of directions issued by the Hon'ble Court earlier in OJC No. 14889 of 1998 and OJC No. 3128 of 1994. The committee also prays for additional time to visit the site during nesting and make on the spot assessment and formulate steps to be taken in the medium term and in the long term for the protection of olive ridley turtles and their habitats.

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Shri Susanta Nanda, IFS 14/3/21
Director, Environment-cum-
Special Secretary to Govt.
Forest & Environment Department

Mohit Agarwal
Mr. Mohit Agarwal
Learned Amicus Curiae

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Report of the committee

Kartik Shanker <kshanker@gmail.com>

Wed, Mar 10, 2021 at 12:17 PM

To: Susanta Nanda <susantaifs@gmail.com>

Hi

Please find my edits attached. The changes are quite minimal on the whole.

I am attaching two files:

- 1) The file with the name 'edited' includes my tracked changes so that you can see whatever changes I have made.
- 2) The file marked as 'final' is the clean version which can be submitted if you agree with the changes.


Please let me know if you have any further comments or questions.

best wishes

Kartik

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2 attachments

 Report of the committee constituted in W.P.(C) PIL No. 7118 of 2021 edited.docx
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 Report of the committee constituted in W.P.(C) PIL No. 7118 of 2021 final.docx
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Report of the committee

Susanta.Nanda <susantaifs@gmail.com>
 To: Kartik Shanker <kshanker@gmail.com>, Mohit Agarwal <mohit.agarwal@gmail.com>
 Wed, Mar 10, 2021 at 12:23 PM

The file marked as 'final' with the clean version looks perfect and may be treated as final to be submitted.
 With best wishes.
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