

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NOOF 2024

IN THE MATTER OF:

WILDLIFE SOCIETY OF ODISHA

APPLICANT

VERSUS

STATE OF ODISHA AND OTHERS ...

RESPONDENTS

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PLACE: BHUBANESWAR

SANKAR PRASAD PANI

ASHUTOSH PADHY

DATE- 18/01/2024



ADVOCATE

PLOT NO 2132/4814, NAGESWARTANGI, BHUBANESWAR, 751002, CELL9437279278, Email:sankarprasadpani@gmail.com

SYNOPSIS

The application is challenging the ongoing and specific harmful tourism activities inside Satkosia Tiger Reserve in Saktosia Gorge of Mahanadi River a notified Ramsar wetland in Nayagarh Wildlife Division under the garb of Ecotourism. The tourism activities on the river gorge and the bed of river Mahanadi is against the principle of Sustainable Development, Precautionary Principle AND Supreme Court order in Godavarman Case.

LIST OF DATES

- | | |
|------------|--|
| 1972 | Ramsar Convention on Wetland |
| 4/12/2010 | Wetland (Conservation and Management) Rules 2010 Notified |
| 2011 | National Wetland Inventory and Assessment (NWIA) |
| 3/08/2011 | Department of Forest and Environment, Government of Odisha has expressed it's concern about loss of wetlands in urban areas. Wetland destruction primarily takes through construction of commercial and residential developments and road networks. The letter further asks the Development Authorities to protect and preserve the wetlands and not to allow any kind of construction over the water bodies |
| 26/09/2017 | Wetlands (Conservation and Management) Rules, 2017 Notified after repeal of earlier rule |
| 4/10/2017 | Hon'ble Supreme Court Order in W.P. (C) No. 230 of 2001 has inter-alia, directed that, "We make it clear and reiterate that in terms of our order dated 8th February 2017 around 2,01,503 wetlands that have been mapped by the Union of India should continue to remain protected on the same principles as were |

formulated in Rule 4 of the Wetlands (Conservation and Management) Rules, 2010”.

- 21/05/2018** Government of Odisha vide Gazette Notification dated has constituted state wetland authority with including 20 members under the Chairmanship of Honble Minister for Forest and Environment
- 19/09/2018 Policy on Eco Tourism in Forest areas barring permanent construction
- 17/08/2019** **The last and only meeting of state wetland authority held as of now**
- 2020 Guidelines prepared for implementation of Wetland Rules 2017
- 7/02/2020 the grievance committee constituted by state forest and environment department under chairmanship of director Environment cum Special Secretary to Forest and Environment department had never any sitting from the day of inception
- 12/10/2021 Satkosia Gorge of Mahanadi river designated as **Ramsar Site**
- 8/03/2022** MoEFCC addressing all the state governments reiterated the need for Protection of Wetlands as per Rule 4 of the Wetlands (Conservation and Management) Rules, 2017
- 2/06/2023 The Google earth image of suggests setting up of tourist tents and thatched sheds on the river bed of Mahanadi in the Satkosia Gorge in violation of Wetland Rules.
- 02/08/2023 Copy of E-mail by the applicant society to all concerned authorities for necessary action

BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH, KOLKATA

(Under Section 14 , 15 r/w. Section 18(1) & (2) of the National Green Tribunal Act, 2010)

Original Application No _____ /2024

IN THE MATTER OF:

Wildlife Society of Orissa, Represented by its Secretary,

Shantikunj, Link Road, CuttackDist-Cuttack, Odisha -753012

APPLICANT

VERSUS

1. State of Odisha through Chief Secretary of Odisha

LokaSeva Bhawan, Bhubaneswar, 751001, **Email- csori@nic.in**

2. Additional Chief Secretary, Forest and Environment Department, Kharbela

Bhawan, Bhubaneswar, Government of Odisha 751001 email- fesec.or@nic.in

3. Director Environment, Forest Environment Climate Change Department,

Government of Odisha, Member Secretary State Wetland Authority

cumChairperson Grievance Committee under Wetland Rules 2017, Kharbela

Bhawan, Bhubaneswar, Odisha,751001 direnvodisha@gmail.com

4. Chairperson, State Wetland Authority Odisha, Kharbela bhawan, Bhubaneswar,

odisha, 751001 Email: pradipamal@gmail.com

5. Divisional Forest Officer, Nayagarh Wildlife Division

At/Po/Ps- Nayagarh, Dist : Nayagarh Email - dfn.nayagarh@odisha.gov.in

6. Regional Chief Conservator of Forest , Angul Circle & Field Director, Satkosia

Tiger Reserve, At/P.O: Angul Dist : Angul Email : rccfangul@gmail.com

7. Chairman, Odisha Biodiversity Board, Regional Plant Resource Centre,

Ekamrakanan, Nayapalli, Bhubaneswar, 751015 , msobb@rediffmail.com

8. Chairperson, National Wetland Committee, Government of India, Ministry of

Environment, Forest and Climate Change, Government of India , Indira

Paryavaran Bhavan, Jorbagh Road, New Delhi -110003 secy-moef@nic.in

9. Deputy Director General of Forests (C), Ministry of Environment, Forest and

Climate Change, Integrated Regional Office, A/3, Chandrasekharpur,

Bhubaneswar – 751023, Email: roez.bsr-mef@nic.in

...RESPONDENTS

I. The addresses of the Applicants are given above for the service of notices of this Application.

II. The Present Application Challenges the illegal activities being carried out inside the Satkosia Tiger Reserve in the garb of promotion of Eco-tourism.

The very act of tourism activity on Forest land and a notified Ramsar wetland site with significant biodiversity is against the principle of Sustainable Development, Precautionary Principle, Forest Conservation Act 1980 and Supreme Court order dated 12-12-1996 in TN Godavarman Case.

IT IS MOST RESPECTFULLY SHOWETH:

1. That the Applicant is a registered society bearing Regn. No. 19648/80 having its office at Shantikunj, Link Road, Cuttack engaged in wildlife and forest conservation in the state of Odisha since last 28 years and in the present case the society is duly represented by its Secretary Dr. Biswajit Mohanty. The society has been constantly agitating the issues of Forest, Wildlife and Environment before administrative and judicial forums including before this Hon'ble NGT. Copy of the society registration certificate is here unto annexed as **ANNEXURE-1**.

2. Saktosia Tiger Reserve is spread over in the districts such as Angul, Nayagarh and Boudh in the state of Odisha. That part of the Mahanadi river that flows through the Tiger Reserve is designated as Saktosia Gorge and forms the core area of the Tiger Reserve as per section 38v of the Wildlife (Protection) Act,1972 . (A copy of the notification by NTCA is attached as ANNEXURE - 2).

That the attached annexure is the only copy available in the govt website, therefore we undertake to file the retyped copy of the notification dated 31/12/2007 at the time of hearing.

3. That the applicant society though email dated 2/08/2023 has already brought to the notice of all the concerned authorities about the disturbing and harmful tourism activity being carried out at Saktosia Wildlife Sanctuary and the Saktosia Gorge in the river Mahanadi more particularly in the areas within the

control and supervision of Nayagarh Wildlife Division in violation of Wetland Conservation Rules 2017 and guidelines for Eco tourism in forests and protected areas. Copy of Email dated 02/08/2023 is annexed here with as ANNEXURE-4

4. Satkosia Gorge is **one of the largest river gorge of the state and has length of almost 7 Kosh or 14 miles that cuts through the hills of the Tiger Reserve.** The beautiful gorge has high ecological diversity since a wide variety of fish, waterfowl, reptiles are seen here including turtles and crocodiles.
5. The highly endangered gharial or *Gavialis gangeticus* is seen here and it is a site for conservation of this species. The forest department has also released more than 500 gharials through a hatching and rear and release program since the last three decades. Even now the latest reports indicate that some gharials have laid eggs and juvenile crocodiles are sighted by researchers. A news item dated 29.5.2023 published in Down To Earth Magazine vide web link <https://www.downtoearth.org.in/news/wildlife-and-biodiversity/odisha-gharial-hatchlings-spotted-three-years-in-a-row-35-seen-this-time-89626>
6. That Satkosia Gorge on the river Mahanadi is a rich bio diverse wetland as per the following information published in the Ramsar Wetlands Database. This establishes the importance of this wetland that was designated a Ramsar Site on 12.10.2021 :

“Established in 1976 as a wildlife sanctuary, Satkosia Gorge in Angul district of Odisha State is a mosaic of rivers, marshes and evergreen forests at the meeting point of two biogeographic regions, the Deccan Peninsula and the Eastern Ghats. These wetland habitats support a variety of plant and animal communities. Notable plant species include asan (*Terminalia alata*), dhaura (*Anogeissus latifolia*), simal (*Bombax ceiba*), Indian thorny bamboo (*Bambusa arundinacea*) and Calcutta bamboo (*Dendrocalamus strictus*); while animal species include red-crowned roofed turtle (*Batagur kachuga*), Indian narrow-headed softshell turtle (*Chitra indica*), tiger (*Panthera tigris*) and black-bellied tern (*Sterna acuticauda*). The wetland is also known for providing a variety of ecosystem services to surrounding communities like fishing, recharging of groundwater, climate regulation, and safety from floods. It also provides recreational and tourism opportunities and supports spiritual and cultural practices. Fire suppression, drought, drainage, and extreme temperatures are some of the high-impact threats affecting the ecological integrity of the Site.”

7. That an assessment of the avifauna was done by Birdlife International and Bombay Natural History Society (BNHS) and Satkosia Gorge and proposed Tiger Reserve was declared as an IBA (Important Bird Area) in 2003 since it was an habitat for endangered birds like Indian Skimmer (*Rynchops albicollis*) and pratincoles. Even in 2003 Birdlife International recorded a high threat pressure of the habitat. The IUCN has classified this species in its Red List and hence utmost care is needed for protection of its habitat.

8. That Satkosia Gorge sand bars is one of three known nesting sites for the Indian Skimmer in Odisha. The species is a globally threatened bird listed as Endangered under the IUCN whose world population is estimated at about 2,900 birds which is decreasing every year. Indian Skimmers are ground nesting birds and nest on sand bars in riverine habitats. Any human activity like camping or fishing near their nests will drive them away or they may abandon the eggs even after laying them.

9. That the Satkosia Tiger Reserve authority is operating eco-tourism projects that are clearly in violation of Guidelines issued by the NTCA and earlier orders of Hon'ble Supreme Court which prohibit harmful and disturbing tourism inside Tiger Reserves.

10. Some of the activities that are being promoted in the name of “eco tourism” have irreversible impacts on local wildlife and cannot be permitted in the Tiger Reserve and a notified Ramsar wetland site .

The adverse impacts of each activity are elaborated as follows :

a) **The Badmul Sand Resort :**

More than 16 Swiss Cottage tents with attendant Dining huts are pitched on the river bed of Mahanadi river bed during the tourist season for eight months from October to May for accommodation. Bonfires are lighted at night. The website also advertises folk dance every evening with camp fire and sand sports like Volleyball/ Basket Ball and Football . Folk dance with music and sound are extremely harmful for local wildlife. Similarly, sports played on the sandy river bed will lead to sand compaction which will make the habitat unsuitable for ground dwelling, burrowing and egg laying fauna.

River beds are unique ecological spaces that deserve to be left alone. No activity on a river bed should be permitted inside a Tiger Reserve since it snatches away wildlife feeding and basking area. The Mahanadi river bed within the Tiger Reserve is used for basking and nesting by turtles and crocodiles. Birds like terns and Pratincoles use it for nesting and feeding. It is one of the internationally recognized nesting sites for the Indian Skimmer a globally threatened bird listed under IUCN Appendix.

Setting up of tents and allowing tourists to stay on river beds impacts such wildlife and affects their ecological needs including basking which is vital for metabolism of cold blooded creatures.

Bonfires at night also affects nocturnal wildlife, disorients their vision thereby impacting their ability to feed and move about freely. The shouting of tourists is a

clear disturbance for wildlife who avoid the entire sand bank which was their traditional home since thousands of years.

b) The Satkosia Gorge river cruise:

The Satkosia Tiger Reserve conducts motorized boat cruises inside the Gorge which is a harmful practice in the Core area of a Tiger Reserve. The sound and vibration of outboard motor engines run by diesel/kerosene disturb aquatic fauna like turtles, fish, crocodiles and avian fauna like migratory water fowl that are seen in large numbers. Very often crocodiles and turtles that are basking on the river bank have to dive when they see the approaching tourist boat which affects their metabolism dependent upon winter basking.

Birds like migratory water fowl cannot even rest or feed properly once they sight an approaching boat whether it is a country boat or a motorized boat.

c) Treetop Canopy walk for bird watching:

The Satkosia Tiger Reserve has erected a Tree top canopy walk for tourists for bird watching which is a highly disturbing activity that affects birds. Most avian species use tree canopy for nesting and roosting. They shall be disturbed and forced to desert their nests /roosting site if tourists approach them at close distance of 10-15 feet much above the ground. Their chicks shall equally be stressed if humans approach them. Tourists can easily use binoculars to watch birds from a distance.

11) The needs of wildlife are paramount in a Tiger Reserve since it is created for wildlife needs and not for entertainment of tourists. These needs cannot be sacrificed at the altar of tourism revenues. Tourism in a Tiger Reserve needs to be highly controlled and should have zero impact on its habitat and wildlife.

12) That being aggrieved with the ongoing harmful tourism activity inside the Satkosia Tiger Reserve the Society filed several complaints with the National

Tiger Conservation Authority (NTCA). Some letters were issued by the NTCA to the Chief Wildlife Odisha seeking a report.

CHRONOLOGY OF COMPLAINTS TO AUTHORITIES:

- a) On 28th October, 2019 the Society filed objections with the ADG(Project Tiger) and Member Secretary, NTCA vide letter No. WC/35/2019 pointing out the various illegal activities. The applicant also demanded immediate directions to the Chief Wildlife Warden, Odisha to stop such harmful tourism activities. Copy of the letter dated 28/10/2019 is here unto annexed as **ANNEXURE-6**.
- b) That on 30th October,2019 a factual report was sought by the AIG- NTCA from the Chief Wildlife Warden, Odisha regarding the above complaint. Copy of the Letter dated 30/10/2019 from NTCA to Chief Wildlife Warden, Odisha seeking report is here unto annexed as **ANNEXURE-8**.
- c) A reminder was sent to the NTCA again on 14th July 2020 by the Society pointing out lack of action regarding our earlier complaint dated 28th October,2019.
- d) A second reminder was sent to the NTCA on 21st August,2020 drawing attention to the earlier complaints and lack of action thereon.
- e) A third reminder was sent to the NTCA on 12th October 2020 drawing attention to the earlier three complaints and lack of action thereon.
- f) A reminder was sent on 14th December,2020 by Dy. IGF (NTCA) to the Chief Wildlife Warden drawing his attention to the lack of response to the earlier letter dated 30th October,2019.
- g) A fourth reminder was sent to the NTCA on 9th February,2021 pointing out lack of action on our earlier four complaints regarding this matter.
- h) That in response the DIG-NTCA issued an O.M. on 10th February 2021 directing the AIG-NTCA Regional Office, Nagpur to enquire into the complaint for a factual status. Copy of the Office order dated 10/02/2021 of NTCA directing enquiry by AIG, NTCA, Nagpur is here unto annexed as **ANNEXURE – 9**.

i) That the complainant awaited the result of the enquiry ordered by the NTCA for 20 months which unfortunately was never conducted. Hence a reminder was sent on 15th October,2022 by the Society demanding action on our earlier complaints. Copy of the complaints dated 14/07/2020,21/08/2020,12/10/2020,23/11/2020 to NTCA is here unto annexed as **ANNEXURE – 7series**.

13. It may be observed that no visible action had been taken despite our complaint lodged almost three years nine months ago with the NTCA and state wildlife authorities.

14. The Satkoshia Gorge Sanctuary Location: 84°47'46" - 84°51'21" / 20°30'12" - 20°35'22" has been listed as Wetland Type: River (Gorge) - Mahanadi in the National Wetland Atlas published in 2010. The Atlas has described this as

“A stretch of 22 km of Mahanadi river in the Satkoshia Gorge between Tikerpara and Barmul has been declared as sanctuary in 1976 to protect and conserve the endangered Gharial (Gavialis gangeticus) The area of the sanctuary is estimated to be 79,552 ha”

15. That noisy motor boats disturb the local fauna which includes highly endangered gharials, fresh water turtles and also the Indian skimmer that have been found nesting in the sand bars of the gorge.

16. That cold blooded reptile’s metabolism is regulated by exposure to sunlight and they need to bask on the river banks and islands. However, the noisy tourist boats which approach them for sighting force them to dive into the water thereby upsetting the metabolic process.

17. That the Satkosia gorge stretching for 14 miles was designated as **Ramsar Site on 12.10.2021** and prior to that it is already placed in the Wetland Atlas

prepared by MoEFCC in year 2010. All Ramsar sites are protected under Wetland Conservation Rules 2017. This gorge has a high biodiversity and being a habitat for highly endangered species like the gharial as well as the Indian skimmer. Both species are regularly sighted now and need a quiet and conducive habitat for proper survival and breeding

18.The Ramsar notification describes the boundary of the Wetland as follows :

“Satkosia Gorge Sanctuary is situated at its heart on either side of River Mahanadi, including the Gorge portion. The gorge is narrow but very deep with strong undercurrents of water. Its length, as the name speaks is ‘7 Kosa’, which is equivalent to 22.4 Kms (1 Kosa = 2 miles). The part of the sanctuary north of river Mahanadi comes under Angul and Cuttack revenue Districts and the part south of it comes under Boudh and Nayagarh Revenue Districts. The Ramsar Site boundary aligns with Satkosia Gorge Wildlife Sanctuary, which is also a tiger reserve and forms the catchment of the fourteen-mile-long, deep gorge.” , copy of the Ramsar notification which tells the satakosia George as wetland is here unto annexed as ANNEXURE-3.

19.The Satksoia gorge wetland supports several IUCN red listed threatened species. The **notable vulnerable species are Common pochard (*Aythya ferina*), river tern (*Sterna aurantia*), Black bellied tern (*Sterna acuticauda*) and Indian Skimmer (*Rynchops albicollis*) and Gharial crocodile**. It also supports the Indian Chitra indica and Ruddy shelduck (*Tadorna ferruginea*), which is representative and significantly helps in

maintaining the biodiversity of the region owing to the large variety of ecological functions performed by the abovementioned diverse range of species.

20. In the name of promoting tourism the forest department carries out several harmful activities like tented accommodation on the river bed, Tree top walks and motorboat rides in the Gorge. The advertisement of facilities as depicted in their website is attached as ANNEXURE -5
21. As per the Ramsar Convention, a wetland is defined as ‘areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tides does not exceed six meters’. In addition, to protect coherent sites, Article 2.1 of the Convention provides that ‘wetlands may include riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six meters at low tide lying within the wetlands.’
22. That the Wetlands are protected under the Wetlands (Conservation and Management) Rules, 2017. Allocation of wetlands for any other purpose constitutes a violation of statutory requirement under the Environment (Protection) Act, 1986 and the Wetlands (Conservation and Management) Rules, 2017 in addition to running contrary to the Principle of Sustainable Development, the Precautionary Principle, the Public Trust Doctrine and the Eco-centric approach propounded by the Hon’ble Supreme Court of India.

By changing the land use for recreational purposes and altering the land use will seriously affect the purpose it was serving.

23.It is widely recognized that Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs. An immense variety of species of microbes, plants, insects, amphibians, reptiles, birds, fish and mammals can be part of a wetland ecosystem. Climate, landscape shape (topology), geology and the movement and abundance of water help to determine the plants and animals that inhabit each wetland. The complex, dynamic relationships among the organisms inhabiting the wetland environment are called food webs. The future of humanity depends on wetlands. Wetlands are some of the most important biodiversity areas in the world. Many of the challenges of the future can be met through conserving and sustainably using wetlands, such as food and water security, human health, disaster risk reduction and climate change resilience. Wetlands can be thought of as "biological supermarkets." They provide great volumes of food that attract many animal species. These animals use wetlands for part of or all of their lifecycle. The functions of a wetland and the values of these functions to humans depend on a complex set of Relationships between the wetland and the other ecosystems in the watershed. A watershed is a geographic area in which water, sediments and dissolved materials drain from higher elevations to a common low-lying outlet or basin a point on a larger stream, lake, underlying aquifer or estuary.

Role in Mitigating Climate Change : Wetlands' microbes, plants and wildlife are part of global cycles for water, nitrogen and sulfur. Thus wetlands help to moderate global climate conditions

24. That MoEFCC vide letter dated **8th March 2022**, addressing all the state governments reiterated the need for Protection of Wetlands as per Rule 4 of the Wetlands (Conservation and Management) Rules, 2017 and further highlighted the Hon'ble **Supreme Court Order dated 4th October 2017 in W.P. (C) No. 230 of 2001** has inter-alia, directed that,

“We make it clear and reiterate that in terms of our order dated 8th February, 2017, around 2,01,503 wetlands that have been **mapped by the Union of India should continue to remain protected on the same principles as were formulated in Rule 4 of the Wetlands (Conservation and Management) Rules, 2010**”.

2. The same has been communicated by this Ministry to all the States and UTs in November, 2017. Hon'ble NGT has also reiterated the same in various recent cases.

3. In view of above, it is once again clarified/reiterated that the 2,01,503 wetlands (>2.25 ha) as per the National Wetland Inventory and Assessment (NWIA), 2011 should be protected as per Rule 4 of the Wetlands (Conservation and Management) Rules, 2017. This protection is irrespective of the applicability of/notification as per the said Rules”.

25. That in view of the Order of Honble SC reported as **M.K. Balakrishnan v. Union of India** (2017) 7 SCC 810(2), considering the embargo on reclamation of wetlands under Rule 4 of the Wetlands (Conservation and Management) Rules, 2010, the action of the State in the instant case of erection of temporary Tents and Sheds in the river bed would be illegal
26. Wetlands and Sustainable Development Goals: The sustainable use of water and wetlands, by protecting the services they provide, is critical to enable society to achieve sustainable social and economic development, adapt to climate change and improve social cohesion and economic stability. The United Nations Sustainable Development Goals (SDGs) offer a universal agenda that, for the first time, recognises the need for restoration and management of water related ecosystems, including wetlands, as a basis for addressing water scarcity and water risks. Wetlands are a solution for several key challenges around the world related to water, food and climate, and key to meeting the SDGs. Most of the SDGs are relevant in some way or another to wetlands, but the following are of particular importance
27. That Wetland Atlas of 2010 estimates of various wetland categories for Orissa have been carried out using GIS layers of wetland boundary, water-spread, aquatic vegetation and turbidity. In the state of Orissa **12,266 wetlands have been delineated**. In addition, **66,174 small wetlands** (< 2.25 ha) have also been discerned. Total wetland area is estimated to be **6,90,904 ha**. Inland wetlands dominated the extent of wetlands constituting about 66

per cent. Further, inland natural and man-made wetlands shared approximately similar extents with about 34 and 32 per cent of area under wetlands. Out of 24 per cent of coastal wetlands, the natural accounted for about 20 per cent and the rest 3 per cent is shared by man-made wetlands.

28.That in exercise of the powers conferred by section 25, read with sub-section (1) and clause (v) of sub-section (2) and sub-section (3) of section 3 and section 23 of the Environment (Protection) Act, 1986 and in supersession of the Wetlands (Conservation and Management) Rules, 2010, except as respects things done or omitted to be done before such supersession, the Central Government , MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE has notified rules for conservation and management of wetlands, namely Wetlands (Conservation and Management) Rules, 2017 vide NOTIFICATION **dated 26th September, 2017**

29.While notifying the Rules 2017 the MoEFCC has acknowledged in it's preamble that the wetlands are vital parts of the hydrological cycle, are highly productive ecosystems which support rich biodiversity and provide a wide range of ecosystem services such as water storage, water purification, flood mitigation, erosion control, aquifer recharge, microclimate regulation, aesthetic enhancement of landscapes while simultaneously supporting many significant recreational, social and cultural activities, being part of our rich cultural heritage;

30. It further acknowledges that many wetlands are threatened by reclamation and degradation through drainage and landfill, pollution (discharge of domestic and industrial effluents, disposal of solid wastes), hydrological alteration (water withdrawal and changes in inflow and outflow), over-exploitation of their natural resources resulting in loss of biodiversity and disruption in ecosystem services provided by wetlands;
31. And whereas clause (g) of article 51A of the Constitution stipulates that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures;
32. And whereas the Environment (Protection) Act, 1986 is a comprehensive legislation to provide protection and improvement of the environment, including inter-alia, wetlands, and for matters connected therewith; And whereas the National Environment Policy, 2006 recognises the ecosystem services provided by wetlands and emphasizes the need to set up a regulatory mechanism for all wetlands so as to maintain their ecological character, and ultimately support their integrated management;
33. And whereas India is a signatory to the Ramsar Convention on Wetlands and is committed to conservation and wise use of all wetlands within its territory;

34. And whereas the Central Government has published the Wetlands (Conservation and Management) Rules, 2010, vide number G.S.R. 951(E), dated the 4th December, 2010;
35. And whereas conservation and wise use of wetlands can provide substantial direct and indirect economic benefits to state and national economy, and thereby the Central Government stands committed to mainstreaming full range of wetland biodiversity and ecosystem services in development planning and decision making for various sectors;
36. And whereas the State Governments and Union Territory Administrations need to take into account wetland ecosystem services and biodiversity values likewise within their developmental programming and economic well-being, also taking into cognizance that land and water, two major ecological constituents of wetland ecosystems, are enlisted as State subjects as per the Constitution;
37. Rule 8 talks about “Restriction of Activities in Wetland”. Sub Rule 2 thereof reads as under: **“I. The following activities shall be prohibited within the wetlands, namely,-conversion for non-wetland uses including encroachment of any kind; II. Setting up of any industry and expansion of existing industries; III. manufacture or handling or storage or disposal of construction and demolition waste covered under the Construction and Demolition Waste Management Rules, 2016; hazardous substances covered under the Manufacture, Storage and Import of Hazardous Chemical Rules,**

1989 or the Rules for Manufacture, Use, Import, Export and Storage of Hazardous Micro-organisms Genetically engineered organisms or cells, 1989 or the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008; electronic waste covered under the E-Waste (Management) Rules, 2016; IV. solid waste dumping; V. discharge of untreated wastes and effluents from industries, cities, towns, villages and other human settlements; VI. any construction of a permanent nature except for boat jetties within fifty metres from the mean high flood level observed in the past ten years calculated from the date of commencement of these rules; and, VII. poaching.”

38. That in the instant case construction of tents on the river bed within the notified wetland for tourism amounts to encroachment as prohibited under para I stated above.

39. The Guidelines of 2020 of MoEF&CC and Administrative order dated 16.03.2022 also lay down similar provisions. The rigor of clear provisions thereof cannot be breached by reference to any decision of State or Local Body/authority in as much as EP Act, 1986 is a Central Act and provisions framed thereunder as also the Rules framed there under shall prevail over any decision of State or local bodies. The Guidelines of 2020 for implementing Wetlands (Conservation and Management) Rules, 2017 .

40. Government of Odisha vide Gazette Notification dated **21st May 2018** has constituted state wetland authority with including 20 members under the Chairmanship of Hon'ble Minister for Forest and Environment

41. That Rule-4(Restrictions of activities in wetlands).—

(1) The wetlands shall be conserved and managed in accordance with the principle of 'wise use' as determined by the Wetlands Authority.

(2) The following activities shall be prohibited within the wetlands,

namely,-

(i) conversion for non-wetland uses including encroachment of any kind;

(ii) setting up of any industry and expansion of existing industries;

(iii) manufacture or handling or storage or disposal of construction and demolition waste covered under the Construction and Demolition Waste Management Rules, 2016; hazardous substances covered under the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 or the Rules for Manufacture, Use, Import, Export and Storage of Hazardous Micro-organisms Genetically engineered organisms or cells, 1989 or the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008; electronic waste covered under the E-Waste (Management) Rules, 2016;

(iv) solid waste dumping;

(v) discharge of untreated wastes and effluents from industries, cities, towns, villages and other human settlements;

(vi) any construction of a permanent nature except for boat jetties within fifty metres from the mean high flood level observed in the past ten years calculated from the date of commencement of these rules; and,

(vii) poaching.

42. That Rule 7 provides Delegation of powers and functions to the State Governments and Union Territory Administrations.—

(1) The concerned Department of the State Government or Union Territory Administration shall, within a period of one year from the date of publication of these rules, **prepare a Brief Document for each of the wetland identified for notification, providing:—**

(a) **demarcation of wetland boundary** supported by accurate digital maps with coordinates and validated by ground truthing;

(b) **Demarcation of its zone of influence and land use and land cover** thereof indicated in a digital map; (c) ecological character description;

(d) Account of pre-existing rights and privileges;

(e) List of **site-specific activities to be** permitted within the wetland and its zone of influence;

(f) List of site specific **activities to be regulated** within the wetland and its zone of influence; and

(g) Modalities for enforcement of regulation;

(2) Based on the Brief Document, **the Authority shall make recommendations to the State Government or Union Territory Administration for notifying the wetlands.**

(3) The State Government or Union Territory Administration shall, after considering the objections, if any, from the concerned and affected persons, **notify the wetlands in the Official Gazette, within a period not exceeding 240 days from the date of recommendation by the Authority.**

(5) (a) The Central Government shall create a dedicated web portal for information relating to wetlands. (b) The Central Government, **State Government and Union Territory Administration shall upload all relevant information and documents pertaining to wetlands in their jurisdiction.**

43. That in view of the objectives of the Wetlands (Conservation and Management) Rules, 2017 more particularly need for identification and demarcation of zone of influence of wetland and as of now no such effort has been made by the state authorities as well as the district authority.

44. The last and only meeting of state wetland authority held on **17/08/2019** and minutes of the meeting as follows

“He stressed upon for **submission of Action Plans** to Govt. of India for restoration of degraded wetlands of the State As desired. Director, Env-cum-Special Secretary presented the state Wetlands and salient points of Wetlands (Conservation and Management) Rule 2017.

He also conveyed the order dated 10.05.2019 of Hon'ble NGT in M.A 26/2019 in OA No. 325/2015 in the matter of **Lt. Col. Sarvadaman Singh Oberoi & Ors** and the order dated **29.03.2019** in OA. No. 503/2018 of Honble NGT in the matter of **R.K.Gupta Vs Delhi Development Authority & Ors** to the notice of Authority wherein Hon'ble Tribunal **directed that the State Wetlands Authority to identify wetlands and water bodies to be notified in their jurisdiction and review** existing framework of restoration all water bodies by preparing an appropriate action plan

After detail discussion, the following decisions are taken.

1. Regarding, constitution of Technical Committee, it was decided to include representatives of Forest & Environment Department, Water Resources Department, Housing & Urban Development Department, PR& DW Department, Revenue & Disaster Management Department, Fisheries & Animal Resources Department and **ORSAC** for review of brief

documents, management plans and advise on any technical matter referred by the State Wetlands Authority.

2. Further, it was decided to **constitute a Grievance Committee consisting of Principal Secretary Forest & Environment Department, Chief Executive, CDA/ICZMP: one NGO and Director, Environment** to provide a mechanism for hearing and forwarding the grievances raised by public to the Authority

3. **Technical Committee is to identify all wetlands in the State.** They may refer the National Wetland Atlas prepared by ORSAC besides may also consider Hirakud reservoir, Hadagada as well as major, medium and some minor irrigation projects of Water Resource Department. On the basis of importance, Technical Committee will suggest the details of the wetlands in the next meeting of the **Authority so that the Authority can recommend the eligible wetlands to be notified by the State Government.**

4. For sustainable management of wetlands, **Action Plans for each wetland need to be prepared.** The objectives of the Action Plan should include **catchment treatment, silt load reduction, checking of inflow of organic wastes, fertiliser & pesticides residues and open defecation thereby decrease of pollution load in water bodies.** Further, site specific ecotourism, increase of fisheries and other recreational use may also be promoted”

Copy of the meeting of state wetland authority held on **17/08/2019** and minutes of the meeting is here unto annexed as ANNEXUTE-14

45. The MOEFCC in Lokasabha on 19/07/2019 responded to starred questions of Hon'ble MPs confirming requirement for constitution of grievance committee and delegation of power to state authorities to notify the wetlands.

46. On **7/02/2020** the **grievance committee constituted** by state forest and environment department under **Chairmanship of director Environment cum Special Secretary to Forest and Environment department.**

47. In view of the Precautionary Principle's and the objectives of the Wetland Conservation and Management Rules 2017, there is an urgent **need to stop construction, demolish the temporary tent and shed structures erected by the forest department on the river bed at the Sand Resort near Badmul in Satkosia Gorge within the Satkosia Tiger Reserve and restore to its original condition along with need to identify, demarcate and protect the wetlands of the Nayagarh, Angul and Boudh district**

48. **That the grievance committee has taken no action as of now even the complaint has been sent since 2nd August, 2023.**

49. Further the Ministry of Environment, Forest and Climate Change is implementing a Centrally Sponsored Scheme of National Plan for Conservation of Aquatic Eco-systems (NPCA) since February, 2013 for

conservation and management of identified lakes and wetlands in the country in a holistic and integrated manner. Under the scheme financial assistance is provided to the concerned State Governments for undertaking various activities for conservation of wetlands and lakes, which also include a small component of lake front development and beautification, especially in urban lakes.

50. Further, the Standing Committee on Water Resources (2012-13) in their 16th Report on “Repair, Renovation and Restoration (RRR) of Water Bodies” also substantiated that encroachment on water bodies is threatening the existence of a large number of water bodies and throwing consequent challenges of depleting ground water resources, occurrence of devastating floods in urban areas as well as water scarcity. Aforesaid Committee suggested steps required to remove encroachment and to restore the water bodies.

51. That the Standing Committee on Water Resources (2015-16) in its Tenth Report on **“Repair, Renovation and Restoration of Water Bodies- Encroachment on Water Bodies and Steps Required to Remove the Encroachment and Restore the Water Bodies”** dated 26th July 2016 has taken the issue of encroachment seriously

52. That the Central Pollution Control Board has framed “Indicative Guidelines for Restoration of Water Bodies” in June 2019 (in compliance to Hon’ble NGT Order dated 10.05.2019 in O A. No. 325 of 2015) and same has

suggested a detailed methodology such as **recognition, restoration, protection, improvement and sustenance phase** as the measures to restore the water bodies.

53. That an article dated 29/05/2023 which shows Critically endangered reptile hatchlings seen in Mahanadi river's Satkosia gorge, a Ramsar site. Copy of the article is here unto annexed as **ANNEXURE-10**.

54. **That the MOEFCC vide order dated 25th October, 2021** has reaffirmed that permanent construction will amount to violation of Forest Conservation Act 1980. It is submitted that all these constructions are to be treated as non-forestry activity as the same is done in order to facilitate the tourism in forest areas. Copy of Letter dated 25/10/2021 is annexed here with as **ANNEXURE-11**.

1. MoEFCC vide letter dated 19/09/2018 has come out with the policy for Eco-tourism in Forest and Wildlife Area. Principles and Objectives of Ecotourism as laid down in the policy are as follows

- i. Adopting low impact nature tourism which **ensures ecological integrity**
- ii. **Promoting biodiversity richness** and heritage values of India's wilderness
- iii. Engaging **local communities and developing mechanisms with a view of enriching the local economy and promoting sustainable use of indigenous materials**

- iv. Establishing partnerships with all stakeholders for developing and promoting nature tourism.

Copy of **Policy dated 19/09/2018** is annexed here with as

ANNEXURE-12

55.The ongoing construction is in clear violation of the policy for Eco Tourism in forest and Protected areas as there has been huge construction activity and less use of indigenous local resources. There extent of construction and infrastructures are as if to build a township in the hill top. The structures are alien to the locality and no way resembles or eco-friendly with that of the surroundings. Hence this appears to be a means **for spending cores of public money in the garb of eco-tourism and siphoning of the public fund by defeating the very purpose of eco-tourism. It requires a Forensic audit of the funds and the beneficiary of the public moneys invested as of now. It also need to be examined how many local people were involved right from decision making to the construction and implementation of the project. As it appears at least 8.5 crores of rupees have been sanctioned for the project and not the whole infrastructure is build either on concrete or some foreign materials.**

56. That the map of the Satakosia Gorge Sanctuary which shows the boundary and length is here unto annexed as **ANNEXURE-13.**

57. That NITI Aayog based on a study warning that India is facing its ‘worst’ water crisis in history and that demand for potable water will outstrip supply

by 2030 if remedial steps are not taken. Nearly 600 million people faced high to extreme water stress. Also, made predictions that twenty-one cities, including Delhi, Bengaluru, Chennai and Hyderabad will run out of groundwater by 2020, affecting 100 million people. If matters are to continue, there will be a 6% loss in the country's Gross Domestic Product (GDP) by 2050. Moreover, critical groundwater resources, which accounted for 40% of India's water supply, are being depleted at "unsustainable" rates and up to 70% of India's water supply is "contaminated" 'Therefore, water resource available to the country should be brought within the category of utilizable resources to the maximum possible extent.

ENCROACHMENT OF WATER BODY IN VIOLATION OF JUDGMENTS OF HON'BLE SUPREME COURT

45. It is further emphasized that the Hon'ble Apex court in plethora of judgments have stressed on restoration of water bodies and in no case such water bodies should be allowed to be encroached and then after regularized. Some of the important operational parts of the judgments are reproduced as follows.

"in Jagpal Singh v. State of Punjab and noted that since time immemorial, certain common lands had vested in village communities for collective benefit. Except in exceptional circumstances when used exclusively for the downtrodden, these lands were inalienable. It was observed that such protections, however, remained on paper, and since Independence powerful people and a corrupt system had appropriated these lands for personal aggrandisement. Pointing out the harms

in allowing such misappropriation, the Court noted an urgent public interest in stopping such misdeeds. Further, various directions were issued for eviction of illegal occupants and restoration of the common land to villagers. It was explicitly specified that “long duration of such illegal occupation or huge expenditure in making constructions thereon” cannot be a “justification for condoning this illegal act or for regularising the illegal possession”

47. That the Hon’ble Apex Court in the matter of Jitendra Singh-Versus-Ministry of Environment & Others decided on 25th November 2019 observed at Para: **18, 19, 20** are as follows:-

“**18.** Even otherwise, the action of the respondent authorities contravenes their Constitutional obligations. Article 48 A of the Constitution casts a duty on the State to “*endeavour to protect and improve the environment and to safeguard the forests and wild life of the country*”, and Article 51A (g) expects every citizen to perform his fundamental duty to “*protect and improve the natural environment*”. A perusal of our Constitutional scheme and judicial development of environmental law further shows that all persons have a right to a healthy environment. It would be gainsaid that the State is nothing but a collective embodiment of citizens, and hence collective duties of citizens can constructively be imposed on the State. Such an interpretation of the Constitution has also been adopted in *MC Mehta v. Union of India* wherein this Court mandated the State to ensure mandatory environmental education to

all school students in pursuance of the fundamental duties enshrined in Article 51A (g)

48. There remains therefore no doubt that it is the responsibility of the respondents to ensure the protection and integrity of the environment, especially one which is a source for livelihood for rural population and life for local flora and fauna.

49. Protection of such village commons is essential to safeguard the fundamental right guaranteed by Article 21 of our Constitution. The right to access to clean drinking water is fundamental to life and there is a duty on the state under Article 21 to provide clean drinking water to its citizens'. The State is duty-bound not only to provide adequate drinking water but also to protect water sources from pollution and encroachment. Any act of the State that allows pollution of water body must be treated as arbitrary and contrary to the public interest and in violation of the right to clean water under Article 21. These common areas are the lifeline of communities, and often sustain various chores and provide resources necessary for life. Water bodies, specifically, are an important source of fishery and much needed potable water. Many areas of this country perennially face a water crisis and access to drinking water is woefully inadequate for most Indians. Allowing such invaluable community resources to be taken over by a few is hence grossly illegal".

50. That the inaction of the State Respondents and National Tiger Conservation Authority in the present instance is in violation of catena of judgments passed in various cases as follows

51. That the Hon'ble NGT Lt. Col. Sarvadaman Singh Oberoi Vs Union Of India, OA NO 325/2015/PB and order dated 10/05/2019, Para 6 has observed that

“There can be no dispute that the water bodies play significant role in recharge of ground water, preventing soil erosion, harnessing rain water and maintaining micro-climate in the area. Need for conservation and protection of water bodies is thus obvious. This requires involvement not only at the level of the State but also at the level of the community for which State needs to take initiative. The threat caused to the water bodies is by dumping of waste, discharge of effluents and encroachments. The steps required for restoration will include preparation and implementation of catchment area treatment plans, setting up of green belt and wherever viable setting up of bio-diversity parks around the water bodies, cleaning up of the garbage/debris and demarcation by the Revenue Department on identification survey and demarcation. Each water body is required to be given a georeferenced-UID and an action plan is required for restoration and protection of each of the water bodies. In this view of the matter, need for conservation and protection of water bodies are

not confined to the State of Haryana alone but extend to the whole country.”

In Para 8 of the order while relying upon the Judgement of SC in Hinch Lal Tiwari case, Hon’ble NGT observed that:

“The above observations advance the **Public Trust Doctrine** which is based on the principle that certain resources like air, water and forests have such great importance to the people as a whole that the same cannot be subject of private ownership. The same are gift of the nature and should be made freely available to the people. **The Doctrine requires the State to protect such resources and not to permit them to be used for private or commercial purposes.** This concept is applicable to wetlands and all water bodies which is essential for protection of the environment. **If the ponds and other such water bodies are not protected and conserved, this will in turn affect recharge of ground water, rain water harnessing and soil preservation.**

52. Section 37 of the Biological Diversity Act 2002 has provision for the declaration of Biodiversity Heritage Sites (BHS) in the state. Biodiversity Heritage Sites (BHSs) are well defined areas specifically unique and fragile ecosystems in terms of biological and ecological significance. They may spread over terrestrial, aquatic, coastal and inland and marine ecosystems having rich biodiversity. The BHSs are endowed with wild as well as

domesticated species, high endemism and occurrence of rare & threatened species, keystone species and species of evolutionary significance.

53. The way the temporary tourism tents and sheds erected for about six months of the year at the river bed of Saktosia gorge threatens the rich biodiversity of the Ramsar wetland Ecosystem and the subsequent anthropogenic pressure because of the inflow of huge number of tourists will further have irreversible impact the delicate ecosystem. As such no study has been conducted on the possible impact of temporary infrastructure, motorboats used in the Gorge and human and food waste generated from the tourism activities and carrying capacity of the area.

54. That the Hon'ble Supreme Court of India in T N Godavarman case WP© 202 of 1995 and order dated 12/12/1996 has clarified the scope of Forest (Conservation) Act, 1980 and definition of "forest" as the dictionary meaning irrespective of ownership. Relevant part of the judgment that is applicable in the present instance is reproduced here as follows

It has emerged at the hearing, that there is a misconception in certain quarters about the true scope of the Forest Conservation Act, 1980 (for short the 'Act') and the meaning of the word "forest" used therein. There is also a resulting misconception about the need of prior approval of the Central Government, as required by Section 2 of the Act, in respect of certain activities in the forest area which are more often of a commercial nature. It

is necessary to clarify that position. The Forest Conservation Act, 1980 was enacted with a view to check further deforestation which ultimately results in ecological imbalance; and therefore, the provisions made therein for the conservation of forests and for matters connected therewith, must apply *to all forests irrespective of the nature of ownership or classification thereof.* *The word "forest: must be understood according to its dictionary meaning.* This description cover all statutorily recognised forests, whether designated as reserved, protected or otherwise for the purpose of Section 2(i) of the Forest Conservation Act. The term "forest land", occurring in Section 2, will not only include "forest" as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership. This is how it has to be understood for the purpose of Section 2 of the Act. *The provisions enacted in the Forest Conservation Act, 1980 for the conservation of forests and the matters connected therewith must apply clearly to all forests so understood irrespective of the ownership or classification thereof.*" This aspect has been made abundantly clear in the decisions of this Court in Ambica Quarry Works and ors. versus State of Gujarat and ors. (1987 (1) SCC 213), Rura' Litigation and Entitlement Kendra versus State of U.P. (1989 Suppl. (1) SCC 504), and recently in the order dated 29th November, 1996 in W.P.(C) No.749/95 (Supreme Court Monitoring Committee vs. Mussorie Dehradun Development Authority and ors.). The earlier decision of this Court in State

of Bihar Vs. Banshi Ram Modi and ors. (1985 (3) SCC 643) has, therefore, to be understood in the light of these subsequent decisions. We consider it necessary to reiterate this settled position emerging from the decisions of this court to dispel the doubt, if any, in the perception of any State Government or authority.

GROUND S

That the applicant is relying on the following grounds to invoke the jurisdiction of the Hon'ble Tribunal and immediate relief to stop some specific tourism activities and prohibit temporary construction of tents /sheds in river bed of Satkosia Gorge in Satkosia Tiger Reserve.

- I. That the erection of temporary tents/sheds that are operational for eight months inside a Ramsar Site in a fragile ecosystem in the garb of promoting eco-tourism is prohibited, bad in law and against the spirit of precautionary principle and sustainable development.
- II. That the operation of motorized tourist boats inside the fragile core area of a Tiger Reserve affects the habitat of several protected species.
- III. That construction on forest land including temporary sheds/tents for tourism in the river bed which is forest land requires prior approval of Central Government under Forest (Conservation) Act of 1980. The construction activity in absence of any approval from central government is an offence under the Forest (Conservation) Act of 1980

and violation of Honble Supreme court order of 12-12-1996 in W.P © 202 of 1995.

- IV. Operation of Canopy top tree walks to watch protected species of birds affects their breeding, nesting and roosting activity.
- V. That the issues in the application is a substantial issue relating to environment as because the site in question is a source of Rich Biodiversity and prospective **Biodiversity Heritage Site**.
- VI. That temporary construction of tents and sheds for tourists in Ramsar Site, wetland of international importance and an ecologically sensitive area that is nesting, basking and feeding site of Indian Skimmers and Black Bellied tern and Gharial crocodile which are globally endangered species as listed under the IUCN Appendix that will bring irreparable damage to the local environment, biodiversity.

LIMITATION

That there is subsisting cause of action as because of the ongoing violations on day to day basis and application is filed within six months from the cause of action arose that is 2nd August, 2023 hence the application is not barred by limitation.

PRAYER FOR INTERIM RELIEF

That the respondents be directed to stop motorized boat tours inside Satkosia Gorge, stop operation of Tree Top canopy tour for tourists and not to set up temporary sheds/tourist tents in the Mahanadi river bed at Badmul inside the Tiger Reserve during the forthcoming tourist season till disposal of this application.

PRAYER

In light of the present facts and circumstances it is most respectfully prayed that this Hon'ble Tribunal may be please to

- a) Direct the State Wetland Authority to submit the status of implementation of the Wetland Rules and functioning of Grievance Committee.
- b) Direct the respondent 1 and MOEFCC to take necessary legal action including the criminal proceeding against the erring officers for willfully violating the Provisions of Forest (Conservation) Act of 1980, Wetland Conservation and Management Rules 2017 and Environment Protection Act, 1986.
- c) Hold and declare that erection of temporary tents and sheds for tourists in the river bed of Mahanadi river inside Satkosia Tiger Reserve carried out every year by the Respondents is illegal.

- d) Direct the Respondents not to erect such temporary tents and sheds for tourists in the river bed and maintain the river bed in its original condition during the non-monsoon season.
- e) Direct the Respondents not to allow motorized boat tours for tourists inside Satkosia Gorge the core area of the Tiger Reserve and a Ramsar site.

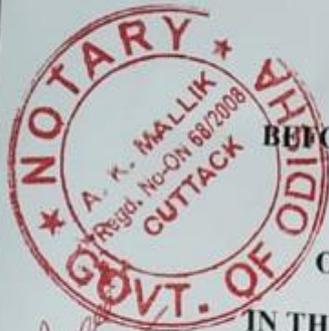
DATE 18/01/2024

APPLICANT THROUGH

BHUBANESWAR

S. Pani → *A. Padhy*

ADVOCATE



Accepted
18-01-24

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NO -..... OF 2024/EZ

IN THE MATTER OF:

WILDLIFE SOCIETY OF ORISSA

APPLICANT

VERSUS

STATE OF ODISHA AND Others ...

RESPONDENTS

AFFIDAVIT

I, Biswajit Mohanty S/o Biswanath Mohanty aged about 60 years, At/Po-Santikunj, Link Road Cuttack, Dist-Cuttack, Odisha -753012 do hereby solemnly affirm, and declare as under.

1. That I am the Secretary of the Applicant Organisation, Wildlife Society of Orissa in the abovementioned application and authorized to sign this affidavit.
2. I am fully conversant with the facts and circumstances of the case and therefore competent to swear this affidavit
3. That I have read over the contents of the accompanying Affidavit and the same is true and correct and is drafted on my instruction.

For WILDLIFE SOCIETY OF ORISSA

Biswajit Mohanty

SECRETARY

DEPONENT

VERIFICATION

Verified on this 18th day of Jan, 2024 at Cuttack that the contents of the above affidavit are true and correct. No part of it is false and nothing material has been concealed there from.

N.C. Dash
Hdv.
0775/2013

Identified by
N.C. Dash
Advocate



For WILDLIFE SOCIETY OF ORISSA

Biswajit Mohanty

SECRETARY

DEPONENT

Attestants
attested on identification
by *N.C. Dash* Adv.

Accepted
18-01-24
A. K. Mallik
Notary, Cuttack Town,

ANNEXURE-1



Certificate of Registration of Societies
ACT XXI OF 1860

No. 19648/80
of 1974-1975

I hereby certify that WILDLIFE SOCIETY OF
ORISSA, At: Link Road, Cuttack-753 012

has this day been registered under the Societies
Registration Act (No. XXI of 1860).

Given under my hand at Cuttack.

this twelfth day of August

One thousand nine hundred and ninety four.



R. S. S. S.
Registrar of Societies,
Orissa 12.8.74

Government of Orissa
Forest & Environment Department



NOTIFICATION
Dated Bhubaneswar, the 31st December 2007.

No.8F(S)-32/2006/20807F&E. In exercise of the powers conferred by Section 38-V of Chapter IVB of the Wildlife (Protection) Act, 1972 and with prior in principle approval of National Tiger Conservation Authority, State Government do hereby notify the two contiguous wildlife sanctuaries, namely Satkosia Gorge Sanctuary and the Baisipalli Sanctuary described in the Schedules A, B1, B2 as the Satkosia Tiger Reserve, with the area described in Schedules C, D and E as the "Core Area or Critical Tiger Habitat of Satkosia Tiger Reserve".

SCHEDULE - A:

LOCATION AND AREA OF THE TIGER RESERVE

The Satkosia Tiger Reserve is located in the districts of Angul, Cuttack, Nayagarh and Boudh, and the geo-coordinates of the extreme points of the Tiger Reserve boundary lie on 20° 23' 40"N and 20° 45' 36"N latitudes and 84° 32' 35"E and 85° 05' 24"E longitudes. The area of the Tiger Reserve is the total area of Satkosia Gorge Sanctuary and Baisipalli Sanctuary, i.e., 963.87sq.km, inclusive of the Core area or Critical Tiger Habitat of 523.61 sq. kms.

SCHEDULE - B1:

DESCRIPTION OF OUTER BOUNDARY OF THE TIGER RESERVE

The outer boundary of Tiger Reserve starts from junction of river Mahanadi & Orasingha Nalla (Known as Suhagi nala in upper reaches), under PS- Narsinghpur in Cuttack district & follows the Orasingha Nalla in north westerly direction till it meets Tulka RF boundary line. Then the boundary follows the inter district boundary line between Cuttack & Angul district in north easterly direction up to village Bhurkundi & there after runs along the boundary line of Raigoda RF in a anti clock wise direction up to Rasanda. From there it goes along the Raigoda- Pampasar forest road in north westerly direction till it meets Angul - Tikarpada P.W.D. road at Pampasar & follows the P.W.D. road up to Jagannathpur till it meets the Tainsi RF boundary line. After that the boundary follows in north westerly direction and then south-westerly direction along Tainsi RF boundary till it meets Baghamunda RF boundary line at Baghamunda & then follows the RF boundary line in anti clock wise direction till it meets Chanagodi Nalla of Majhipada RF. Then it follows the Chanagodi Nalla along the downstream till it meets Athamallik- Doruha road

& follows the road westerly till it meets Kusumkuri Nalla of Athamallik sub-division. After the boundary follows the Kusumkuri Nalla along the downstream southward, till it meets the river Mahanadi, where it crosses the river Mahanadi as well as the inter district boundary between Angul & Boudh district in a southerly direction & meets the junction point of Badajora Nalla & river Mahanadi in Harbhanga PS of Boudh district. Then it follows Badajora Nalla southward direction till it meets the Hatidhara RF boundary line & then follows the same in north easterly direction and touches the inter-district boundary line of Boudh and Nayagarh districts; then follows along the southern boundary of Mahanadi RF of Nayagarh district till it touches the boundary of Baisipalli RF. Then the boundary of the Tiger Reserve follows the boundary of Baisipalli RF touching Doisinga village, Ragum Parbat, Sulia Parbat, Mahanadi Parbat, Ambadhari Parbat, Patadai Parbat, and villages of Banigochha, Durgaprasad, Makarprasad, Shikhargochha, Badasilinga, Gochhabari and Dhipisali to proceed upto Khalkhalla nalla on the boundary of Mahanadi RF. Then the boundary of the Tiger Reserve follows the southern boundary of Mahanadi RF in an easterly direction till it meets Brutanga Nalla. The boundary thereafter runs along Brutanga Nalla in a northerly direction till it meets the river Mahanadi. Then it crosses the river Mahanadi as well as the inter district boundary between Nayagarh & Cuttack district in a north westerly direction to meet the junction point of Orasing Nalla with river Mahanadi. (The starting point).

SCHEDULE - B2

DESCRIPTION OF THE OUTER BOUNDARY OF THE TIGER RESERVE : DISTRICT-WISE AND DIVISION-WISE

I. SATKOSIA WILDLIFE DIVISION.

1. Angul District (Area: 453.25 sq.kms.)

(i) Angul Sub-Division:-

The boundary line in the South-East follows the inter district Boundary line between Angul and Cuttack Districts upto village Bhurkundi and then runs along the boundary line of Raigoda R.F. up to village Rasanda and then along the Raigoda-Pampasar forest road till it meets Angul R.F. boundary line and follows the same up to Jagannathpur till it meets the Tapatpur R.F. boundary line and then follows the same in a north-westerly direction till it meets Baghmara R.F. boundary line and then follows the same in the North westerly direction till it meets Chanagodi nala and follows the same till it meets the Majhipada R.F. boundary line and follows the same till it meets the River Mahanadi and follows the inter district boundary between Angul

and Boudh district and Angul and Nayagarh districts till it meets the trijunction point of Cuttack Angul and Nayagarh districts.

(ii) Athamallik Sub-Division:-

It starts from the junction of River Mahanadi and Kusumkuhuri Nala (Athamallik P.S.) and follows the Nala till it meets the Athamallik - Daruha Road and follows the road till it meets the Chanagodi Nala and follows the Nala in a north-easterly direction till it meets the boundary line of Angul Sub-Division and follows the same till it meets the River Mahanadi and follows the River along the inter-district boundary of Angul and Boudh Districts

2. Cuttack District (Area: 76.76 sq.kms.)

(i) Athagarh Sub-Division:-

It starts from the junction of the River Mahanadi and Orasinga Nala (known as Suagi nala in the upper reaches) under P.S. Narsinghpur in the Athagarh Sub-Division and follows the said nala till it meets the Tulka R.F. boundary line, and then follows the inter district boundary line between Cuttack and Angul districts in the westerly direction till it meets the River Mahanadi and follows the inter district boundary between Cuttack and Nayagarh districts.

II. MAHANADI WILDLIFE DIVISION

(i) Boudh District (Area: 117.84 sq.kms.)

The boundary starts from the junction of river Mahanadi and Badajora Nala in Harbhanga P.S. of Boudh Sub-division and runs along the Nala till it meets the Hatidhara R.F. boundary line and follows the same in a North-Easterly direction till it meets the inter district boundary line of Boudh and Nayagarh districts and follows the same till it meets the river Mahanadi and follows the river in the downstream along the inter district boundary line of Boudh and Nayagarh districts.

(ii) Nayagarh District (Area: 316.02 sq.kms.)

(a) Area within Satkoshia Gorge Sanctuary (Area: 147.67 sq.kms.)

It starts from the junction of River Mahanadi and Burtanga Nala in the Gania P.S. of Nayagarh and follows the Burtanga nala in the upstream in a South-Westerly direction till it meets the boundary line of Mahanadi R.F. Then it follows the boundary line of Mahanadi R.F. first in a westerly direction, then in a northerly direction and again in a westerly direction till it meets the inter district boundary of Boudh and Nayagarh Districts and follows the same in the North-

Easterly direction till it meets the river Mahanadi and follows the inter district boundary between Angul, Nayagarh and then Cuttack and Nayagarh districts.

(a) Entire area of Baisipalli Sanctuary (Area: 168.35 sq.kms.)

The area of Baisipalli sanctuary which is entirely within Nayagarh District, starts in its north-west corner from a point at a distance of about 1km south of the inter-district boundary of Nayagarh and Boudh district which is also the trijunction point of Padmatola RF, Mahanadi RF and Baisipalli RF. Then the boundary of the Tiger Reserve within Nayagarh district follows the boundary of Baisipalli RF in an anticlockwise manner touching Dojsinga village, Ragum Parbat, Suliã Parbat, Mundali Parbat, Ambadhari Parbat, Patadei Parbat, and villages of Banigochha, Durgaprasad, Makarprasad, Shikhargochha, Badasilinga, Gochhabari and Dhipisahi to proceed upto Khalkhala nalla on the boundary of Mahanadi RF. Then the boundary follows the boundary of Mahanadi RF in a westerly direction till it meets the trijunction point of Padmatola RF, Mahanadi RF and Baisipalli RF.

SCHEDULE-C
DESCRIPTION OF BOUNDARY OF THE
CORE AREA / CRITICAL TIGER HABITAT OF THE TIGER RESERVE

The boundary line of core area starts from trijunction of Siloti -Baliput revenue village, Jorum R.F. Block II and River Mahanadi and runs East ward along the southern, Eastern and Northern boundary of Jorum R.F. Block II till it meets Katrang R.F. boundary. Then it goes along the common boundary of Compt.No.9 & 10 of Katrang R.F. till it meets the boundary of Katrang revenue village. Then it follows the Southern, Western and Northern boundary of Katrang revenue village excluding the village. It follows the common boundary between Compt.No.8 & 9 of Katrang R.F., then it turns North-Easterly along the Eastern boundary of Katrang R.F., Southern boundary of Tulka R.F. till it meets the Compt. No.,11 of Tulka R.F. Then it follows the common boundary between Compt. 10 & 11 of Tulka R.F., Western & Northern boundary of Tulka revenue village excluding the same, common boundary between Compt.No.4 & 12 of Tulka R.F. till it meets Raigoda R.F. Then it follows the forest road from Tulka to Bhurkundi and Northern, Eastern boundary of Bhurkundi Forest Village and then runs along the Southern & then Eastern boundary of Raigoda R.F. Then follows the Northern boundary of Raigoda R.F., Balanga R.F. (Compt.No.11 & 12), Jocab R.F., Takarsinga R.F. Compt.No.2 excluding the revenue villages like Labangi, Jocab, Talasira & Pampasar. Then it turns South ward along the

common boundary of Compt.No.1 & 2 of Takarsinga R.F., Northern boundary of Compt. No 4 & 3 of Takarsinga R.F., and Western boundary of Compt.No.3 & 2 of Purunakote R.F. Then it runs East ward along the common boundary between Compt.No.2 & 4, No.18 & 5, No. 17 & 5 of Purunakote R.F. Eastern & Southern boundary of Chhotkei revenue village excluding the same. Then it runs along the common boundary between Compt.No.7 & 13, 7 & 8, 8 & 9, 10 & 11 of Purunakote R.F. Then it turns Westward and runs along the Northern & western boundary of Tikarpada R.F. till it meets River Mahanadi and then it turns North-Westerly along the Northern bank of River Mahanadi including the bank till it meets Majhipada R.F. and runs along the South-Eastern boundary of Majhipada R.F., Southern, Eastern, Northern and Western boundary of Kuru R.F. till it meets Baghmunda Compartment-12. Then it follows the Northern and Western boundary of Baghamunda R.F., then it turns South wards and runs along the Western boundaries of Majlipada R.F., and Compt. No.23, 27, 26 of Hatidhara R.F. Then follows Southern boundary of Compt.No.26, 24 & 25 of Hatidhara R.F. till it meets Doruha-Tikarpada forest road close to river Mahanadi where it crosses the Mahanadi River and touches the Northern boundary of Padmatola R.F. at Compartment 10. Then it follows the boundary of Padmatola R.F. along compartments P-10, P11, P4, P3, P2 and P1 till it meets the boundary of Mahanadi R.F. Then it proceeds south westerly along the Western boundary of Compt.No.1 of Mahanadi R.F., then the Southern boundary of Mahanadi R.F. till it meets Sagadabhanga revenue village. Then it follows the Northern boundary of Sagadabhanga and Malasapadar revenue village, Eastern & Southern boundary of Malasapadar revenue village, Southern boundary of Sagadabhanga revenue village till it meets Mahanadi R.F. boundary excluding both the revenue villages. Then it runs along the Southern, Eastern & Northern boundary of Mahanadi R.F. till it meets river Mahanadi near Malisahi where it crosses the river and meets the tri junction point between Jorum R.F. block No. II, Mahanadi river bank and Siloti-Baliput revenue village, where it started.

SCHEDULE-D
FOREST BLOCKS AND COMPARTMENTS INCLUDED IN THE
CORE AREA / CRITICAL TIGER HABITAT

Names of the forest blocks included in the core area	Compartment Nos. included in the core area	Area of the compartments included in the core area (ha)
Tikarpada	1 to 9	2760.45
Purunakote(Part)	2,3,8,11 to 20	4915.50
Tulka(Part)	1 to 10	3275.612

49

Balanga(Part)	11 & 12	675.98
Jocub	1 to 6	1514.79
Takarsinga(Part)	2,3 and 4	1559.352
Raigoda(Part)	1 to 15 & 16(Part)	4056.65
Katrang(Part)	1 to 8, 10 & 11	4088.157
Jorum(Part)	Block II	886.06
Majhipada	1 to 17	4890.80
Baghamunda	1 to 13	3812.67
Kuru	1 to 9	2116.98
Hatidhara(Part)	23 to 27	1397.98
Padmatola	1 to 11	4674.00
Mahanadi	1 to 17	10283.70
Mahanadi River (Part)		1037.05
Total area		51945.731 hectares

SCHEDULE - E
NAMES OF THE VILLAGES
PRESENTLY SITUATED IN THE CORE AREA.

Name of the village	District	Area of the village (as per revenue records) (ha)
Raigoda	Angul	172.00
Marada	Boudh	64.66
Kuturi	Nayagarh	119.00
Salapaganda	Nayagarh	27.82
Musuguda	Nayagarh	33.26
Total area of villages in the core area		416.74

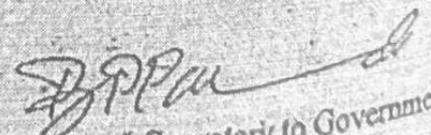
BY ORDER OF THE GOVERNOR

H. S. CHAHAR
PRINCIPAL SECRETARY TO GOVERNMENT

Memo No. 20808/F&E., Dated-31.12.2007

Copy forwarded to the Director, Printing, Stationary & Publication, Orissa, Cuttack with a request to publish the Notification in the next issue of Orissa Gazette.

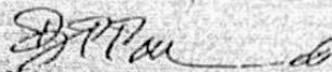
500 (five hundred) copies of the Gazette Notification may please be sent to this Department for reference & use.


Additional Secretary to Government

31.12.07

Memo No 20809/F&E., Dated- 31.12.2007

Copy forwarded to P.C.C.F(O)/ PCCF (WL) & CWLW, Orissa/ C.F. & F.D., STR, Baripada/ All Conservator of Forests/ All D.F.Os for information and necessary action.

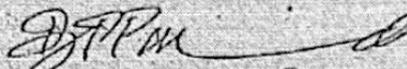


Additional Secretary to Government

31-12-07

Memo No.20810/f&E., Dated-31.12.2007

Copy forwarded to Dr. Rajesh Gopal, Member Secretary, National Tiger Conservation Authority, Bikaner House, Annex-V, Shahjahan Road, New Delhi-110011 for information and necessary action.

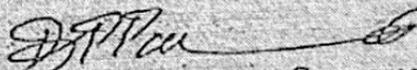


Additional Secretary to Government

31-12-07

Memo No.20811/F&E., Dated-31.12.2007

Copy forwarded to all Departments of Government/ All R.D.Cs/ All Heads of Departments/ All Collectors for information.

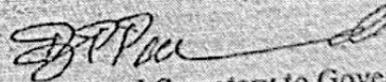


Additional Secretary to Government

31-12-07

Memo No.20812/F&E., Dated-31.12.2007

Copy to All Sections of Forest & Environment Department/G.F. (20 copies) for information.



Additional Secretary to Government

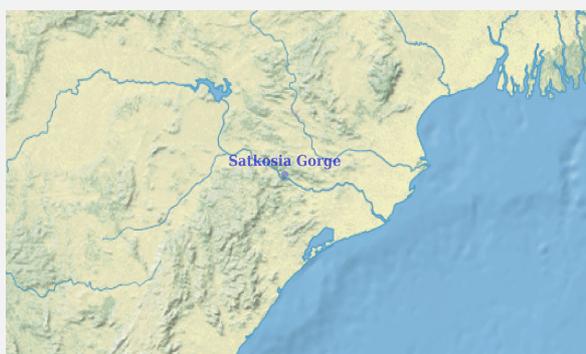
31-12-07



Ramsar Information Sheet

Published on 3 August 2022

India Satkosia Gorge



Designation date	12 October 2021
Site number	2470
Coordinates	20°34'20"N 84°49'56"E
Area	98 196,72 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Satkosia (Lat: 20 degrees 25' -20 degree 45' N Long; 84 degree 40' - 85 degrees 05' E) spreads along the magnificent gorge over the mighty river Mahanadi in Odisha. Established in 1976 as a wildlife sanctuary, Satkosia supports a rich ecosystem, representing a diverse population of floral and faunal species. The name Satkosia originates from two words, sat meaning seven and kos meaning two miles, indicating the length of the gorge as 14 miles or 22.4 km. The area was declared as Satkosia Tiger Reserve in 2007, comprising two adjoining wildlife sanctuaries, the Satkosia Gorge sanctuary and Baisipalli sanctuary. The wetland is spread over 4 districts namely Angul, Cuttack, Nayagarh, and Boudh, and has an area of 98196.72 ha. The area is also a part of the Mahanadi elephant reserve. Satkosia is the meeting point of two biogeographic regions of India; the Deccan Peninsula and the Eastern Ghats, contributing immense biodiversity. Satkosia Gorge wetland is a mosaic of marshes and evergreen forests. The permanent freshwater, marshes, and rivers are the major wetland habitat types, which support a variety of plant and animal communities. The forests of these catchments play a vital role in the prevention of the gorge siltation. It also helps in maintaining a specific desirable depth of water crucial for the endangered gharial population and spawning of commercially important carps and prawns species.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Forest, Environment & Climate Change Department, Government of Odisha
Postal address	DFO, Satkosia(WL) Division, Angul

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forest & Climate Change(MoEF&CC), GOI
Postal address	Office of the Additional Secretary (Wetlands), Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi 110003

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2018
To year	2020

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Satkosia Gorge
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps	0
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Boundaries description

Satkosia Gorge Sanctuary is situated at its heart on either side of River Mahanadi, including the Gorge portion. The gorge is narrow but very deep with strong undercurrents of water. Its length, as the name speaks is '7 Kosa', which is equivalent to 22.4 Kms (1 Kosa = 2 miles). The part of the sanctuary north of river Mahanadi comes under Angul and Cuttack revenue Districts and the part south of it comes under Boudha and Nayagarh Revenue Districts. The Ramsar Site boundary aligns with Satkosia Gorge Wildlife Sanctuary, which is also a tiger reserve and forms the catchment of the fourteen-mile-long, deep gorge.

2.2.2 - General location

a) In which large administrative region does the site lie?	Angul, Nayagarh, Boudha, Cuttack District, Odisha
--	---

b) What is the nearest town or population centre?	Angul
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2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha): 98196.72

Area, in hectares (ha) as calculated from GIS boundaries 98151.112

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Northern Deccan Plateau

Other biogeographic regionalisation scheme

According to Rodgers and Panwar (1988) biogeographic classification, Satkosia Gorge Sanctuary forms the meeting point of two biotic provinces of 19 Deccan Peninsula biogeographic zones (6). The area north of Mahanadi is classed under Garhjat hills and that of South under the Eastern Ghats. This sanctuary is in fact the meeting point of Chhotnagpur plateau (6B) and Eastern Ghats (6C) biotic provinces. Ecologically, the vegetation of Satkosia largely conforms to Northern tropical moist deciduous forests and moist peninsular low-level sal.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

Satkosia Gorge sanctuary has tremendous genetic and ecological importance as it is the wet portion of the Deccan region. It has a significant elephant population in deciduous forests. The sanctuary is also an important natural habitat for two endangered species of freshwater crocodiles viz. Gharial and Mugger, and a sizeable population of tiger, leopard, gaur, sambar, chousingha, barking deer, and giant squirrels. Rare and endangered birds and butterflies are very common. 22.4 Km long stretch of Satkosia Gorge of Mahanadi river harbors a large population of varied fishes and aquatic fauna. Satkosia also represents the endemic life forms of both the biotic provinces in its transitional zone. Geologically speaking, the ghats formed the land bridge for faunal migration between the Holarctic, Indo-Chinese, and Indo Malayan regions on one hand and the Western Ghats on the other. Therefore, the presence of floral and faunal species significant for conservation as listed in reholdst tables hold importance in maintaining the biological diversity of the region as a whole and therefore justifies being placed under category 3.

Criterion 4 : Support during critical life cycle stage or in adverse conditions

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

Start year

Source of data:

Criterion 7 : Significant and representative fish

Justification

The wetland serves as a breeding ground as well as the nursery of a large number of fish species. The deciduous leaves of the adjoining forest type with facilitating nutrition for the larvae helping in growth and development. Some of the larger species depend entirely on the wetland for attaining their adult stage. The site supports the following fishes: Cirrhinus reba, Gibelion catla, Mastacembelus armatus, Pangasius pangasius, and Puntius ambassis.

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Barringtonia acutangula acutangula</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Butea superba</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Caryota urens</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Combretum albidum</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Dalbergia latifolia</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VU	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region. VU IUCN category.
TRACHEOPHYTA/ LILIOPSIDA	<i>Dendrocalamus strictus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Eulaliopsis binata</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Grewia eriocarpa</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Ocimum tenuiflorum</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Phoenix paludosa</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NT	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Saccharum bengalense</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Smilax zeylanica</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Symplocos racemosa</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ LILIOPSIDA	<i>Thysanolaena latifolia</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
TRACHEOPHYTA/ MAGNOLIOPSIDA	<i>Xylia xylocarpa</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.

The wetland supports numerous plant species including the vulnerable species *Dalbergia latifolia*

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA/MAMMALIA	<i>Axis axis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/REPTILIA	<i>Batagur kachuga</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR	<input type="checkbox"/>	<input type="checkbox"/>		CR IUCN category.
CHORDATA/REPTILIA	<i>Chitra indica</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input type="checkbox"/>		EN IUCN category.
CHORDATA/REPTILIA	<i>Crocodylus palustris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input type="checkbox"/>		VU IUCN category.
CHORDATA/MAMMALIA	<i>Elephas maximus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input type="checkbox"/>		EN IUCN category.
CHORDATA/REPTILIA	<i>Gavialis gangeticus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CR IUCN category.
CHORDATA/REPTILIA	<i>Lissemys punctata punctata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/MAMMALIA	<i>Muntiacus muntjak</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/REPTILIA	<i>Naja naja</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/MAMMALIA	<i>Panthera tigris</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input type="checkbox"/>		EN IUCN category.
CHORDATA/MAMMALIA	<i>Rusa unicolor</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		VU IUCN category.
CHORDATA/MAMMALIA	<i>Sus scrofa</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/REPTILIA	<i>Varanus bengalensis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/REPTILIA	<i>Varanus flavescens</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input type="checkbox"/>		EN IUCN category.
Fish, Mollusc and Crustacea																	
CHORDATA/ACTINOPTERYGII	<i>Cirrhinus reba</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/ACTINOPTERYGII	<i>Gibelion catla</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/ACTINOPTERYGII	<i>Mastacembelus armatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
CHORDATA/ACTINOPTERYGII	<i>Pangasius pangasius</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/ACTINOPTERYGII	<i>Puntius ambassis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				DD	<input type="checkbox"/>	<input type="checkbox"/>		Important for maintaining the biological diversity of the particular biogeographic region.
Birds																	
CHORDATA/AVES	<i>Actitis hypoleucos</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1400	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Amaurornis phoenicurus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2700	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Anas acuta</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2100	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Anastomus oscitans</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	300	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Anhinga melanogaster</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	900	2020		NT	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Ardeola grayii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1600	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Ceryle rudis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	900	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Charadrius dubius</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2200	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Ciconia episcopus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1500	2018		NT	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Dendrocygna javanica</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1400	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Egretta garzetta</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1700	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Egretta intermedia</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1600	2018			<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Esacus recurvirostris</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1400	2018		NT	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Halcyon albiventris</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	700	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Halcyon coromanda</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1400	2020		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Halcyon smyrensis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2900	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Himantopus himantopus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1700	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Microcarbo niger</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	600	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Nycticorax nycticorax</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	450	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Rynchops albicollis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	800	2018		EN	<input type="checkbox"/>	<input type="checkbox"/>		EN IUCN category. Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Sterna acuticauda</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1600	2018		EN	<input type="checkbox"/>	<input type="checkbox"/>		EN IUCN category. Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Sterna aurantia</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1500	2018		VU	<input type="checkbox"/>	<input type="checkbox"/>		VU IUCN category. Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Threskiornis melanocephalus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2100	2018		NT	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/AVES	<i>Upupa epops</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1900	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Vanellus albiceps</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2100	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Vanellus duvaucelii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	700	2018		NT	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Vanellus indicus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	600	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.
CHORDATA/AVES	<i>Vanellus malabaricus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1100	2018		LC	<input type="checkbox"/>	<input type="checkbox"/>		Significant constituent of 20,000 or more waterbirds.

1) Percentage of the total biogeographic population at the site

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Floral and faunal communities	<input checked="" type="checkbox"/>	Unique, rare biodiversity with high conservation significance is a part of the community.	A major portion of plant and animal species are under EN, CR and VU categories.

Optional text box to provide further information

About 400 species of plants have been recorded in the sanctuary out of which 126 are trees, 98 shrubs, 125 herbs, and 51 climbers. Sal (*Shorea robusta*) is the dominant species intensified mainly by selective removal of less valuable species under the planned forest management.

Rampant forest fire, excessive grazing, and increasing illegal removal of timber pose a threat to the species of this moist forest. However, no systematic research has been taken up to enumerate all the plant species in the area to date. According to the forest department Hinjal (*Barringtonia acutangula*), Kochila 15 (*Strychnos nuxvomica*), Rosewood (*Dalbergia latifolia*), Patal garuda (*Rauwolfia serpentina*), Gila (*Entada phoseoloides*), Mirigichara (*Grewia elastica*), Kangada (*Xylia xylocarpa*), Patuli (*Stereospermum chelonoides*) and Kantachira (*Acacia fruginia*) are threatened.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Satkosia Gorge is a mosaic of marshes and evergreen forests. The permanent freshwater, marshes, and rivers are the major wetland habitat types, which support a variety of plant and animal communities. The wet meadows, seasonal/intermittent marshes, pools and streams form minor wetland types in which ecological communities from riparian forest and vernal pools survive. During peak monsoon, the entire wetland barring the reserved forest area is inundated. The floral diversity includes over 126 trees, 98 shrubs, 125 herbs and 561 climbers species. The forest vegetation comprises of north Indian tropical moist deciduous forests and moist peninsular low level sal forest, the main tree species being sal which grows in gregarious formations. Other associate species are asan (*Terminalia alata*), dhaura (*Anogeissus latifolia*), and simal (*Bombax ceiba*). Two species of bamboo, namely *Bambusa arundinaceae* and *Dendrocalamus strictus* are common to this wetland. The faunal diversity is tremendous and around 38 species of mammals, 161 species of birds, 27 species of reptiles and 183 species of fishes have been reported from the site. The wetland is an important natural habitat of two endangered species of freshwater crocodiles namely gharial and mugger. It also supports a sizeable population of tiger, leopard, gaur, sambar, barking deer and giant squirrels. Along with mammals and reptiles the sanctuary is also an important habitat for several rare and endangered birds species. The 22.4 km long stretch of Satkosia Gorge of Mahanadi river harbors a large population aquatic fauna. Satkosia is famous for its unique gorge ecosystem and it serves also as a major watershed for the entire region. The wetland is also known for providing a variety of ecosystem services like regulating services (recharging of groundwater, climate regulation, safety from floods), supporting services (facilitating nutrient recycling, soil formation, providing habitat to flora and fauna), and cultural services (providing recreational and tourism opportunities, supporting spiritual and cultural practices, facilitating scientific research). Satkosia also represents the endemic life forms of both the biotic provinces in its transitional zone. It forms an important catchment of the lower Mahanadi basin. The positive role of these catchment forests in the prevention of the gorge siltation and maintenance of a specific desirable depth of water can hardly be overemphasized, particularly for the endangered gharial and for spawning sites of commercially important carps and prawns species. The spiritual and cultural association with local deities namely Binikei, Kankei, Baigani Parbata, Bhimdhara provides higher degree of cultural and inspirational values. The rich biodiversity and aesthetic value of the gorge attract tourists into the sanctuary throughout the year.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks	Satkosia Gorge	1	98196.72	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Aegle marmelos</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Bambusa bambos</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Careya arborea</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ficus benghalensis</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Kydia calycina</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Mangifera indica</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Mimosa pudica</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Phanera vahlii</i>	

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/LILIOPSIDA	<i>Phragmites karka</i>	Potential

Optional text box to provide further information

There is a vast number of lower plants that occur in the sanctuary seasonally. These plants are prominent in the wet season. The cryptogams of Nostac, and other microorganisms are prevalent in the creek where stagnant water accumulates. In certain areas bryophytes, pteridophytes and gymnosperms are very common. Riccia, Cyathidium and general liverworts are the common bryophytes found while ferns belonging to pteridophytes are also widely observed in the sanctuary. *Cycas cerinalis* ver. *Orixensis* belonging to gymnosperms are prevalent throughout the sanctuary. In addition to this, the smallest angiosperm plant-like *wolfia* and *camara* are seen in Kantrasingha game tank. Thus the sanctuary comprises the vast biodiversity stratification.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	<i>Boselaphus tragocamelus</i>				
CHORDATA/MAMMALIA	<i>Cuon alpinus</i>				
CHORDATA/MAMMALIA	<i>Felis chaus</i>				
CHORDATA/MAMMALIA	<i>Hyaena hyaena</i>				
CHORDATA/MAMMALIA	<i>Melursus ursinus</i>				
CHORDATA/MAMMALIA	<i>Prionailurus bengalensis</i>				

Optional text box to provide further information

There are carnivorous animals such as tiger, leopard, jungle cat, civet, small Indian mongoose, wolf, jackal, striped hyena, wild dog found in Purunakote, Tikarapada, Pampasar, Raigoda, Jillinda and Chhamundia and Kusanga ranges of the sanctuary. Herbivorous animals such as elephants, common langur, sloth bear, sambar, chital, chausingha, mouse deer, barking deer, wild pig, gaur (Gayal) and rodents like Malabar giant squirrels, five striped palm squirrel, common hare and porcupines are found in the sanctuary. Nilgai was noticed few years back in Satkosia Wildlife Division.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Am: Tropical monsoonal (Short dry season; heavy monsoonal rains in other months)

Three distinct seasons are experienced in the sanctuary area. The winter starts from November and lasts till the middle of February when summer starts and it continues up to the middle of June. This is followed by the rainy season which continues up to September. The month of October and the first half of November may be treated as the post-monsoon season when some rains are occasionally experienced.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Mahanadi River Basin

4.4.3 - Soil

- Mineral
- Organic
- No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from surface water	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels fluctuating (including tidal)	No change

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

4.4.6 - Water pH

- Acid (pH<5.5)
- Circumneutral (pH: 5.5-7.4)
- Alkaline (pH>7.4)
- Unknown

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ii) significantly different

- Surrounding area has greater urbanisation or development
- Surrounding area has higher human population density
- Surrounding area has more intensive agricultural use
- Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Within the site:

Outside the site:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
- ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland
- iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples
- iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Foundation/non-governmental organization/trust	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

The Satkosia landscape consists of Satkosia Tiger Reserve and adjoining forest areas of Athamallik Forest Division (Hatidhara RF), Athagarh Division (Balikiary RF, Nuagarh RF), Dhenkanal Division (Nandinia RF, Kandhara RF), and Angul Division (Nuakheta RF, part of Balang RF). At present, the core, buffer, and its adjoining areas of the Satkosia landscape are under the unified command of the Regional Chief Conservator of Forests-cum- Field Director, Satkosia Tiger Reserve, Angul. The river Mahanadi nearly divides the reserve into two parts, north of river Mahanadi is managed by D.F.O. Satkosia WL Division and south by D.F.O. Mahanadi W.L. Division. Coordination between both the divisions as well as with the adjoining D.F.O.s is an important aspect of strengthening protection mechanism and other issues of the park.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Divisional Forest Officer(DFO), Satkosia(WL) Division, Angul

Provide the name and/or title of the person or people with responsibility for the wetland:

Saroj Kumar Panda, Divisional Forest Officer, Satkosia Wildlife Division, Angul, Odisha, India, Contact No. 8280146664, Email: dfoatkosiawl@yahoo.co.in

Postal address:

Office of the Divisional Forest Officer(DFO), FPR9+5H3, Hakim Pada Udyan, Hakimapada, Angul, Odisha 759106.

E-mail address:

satkosiawl@yahoo.co.in

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Tourism and recreation areas	Low impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water releases	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non-timber crops	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Gathering terrestrial plants	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Low impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Agricultural and forestry effluents	Medium impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Droughts	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature extremes	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

5.2.2 - Legal conservation status

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Satkosia Gorge		whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status
Harvest controls/poaching enforcement	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal community	Implemented
Water quality	Proposed
Plant species	Implemented

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. A Manual for Planning Wildlife Management in Protected Areas and Managed forests by Vishwas. B.Sawarkar, WII, D. Dun.
2. Dr. C.R. Mohapatra's Working Plan for Angul (T) Division for the period 1970 – 1990.
3. Sri B.P.Singh's Working Plan for Angul (T) Division for 1990- 91 to 1999- 2000.
4. Mr. S.B.Das's Working for Rairakhol Division for the period 1965 to 1985.
5. Mr. Dinesh Singh's Working Plan for Athamallik Division for 1985 to 2005.
6. Sri N.C. Bal's Working Plan for Nayagarh Division for the period 1983-84 to 2002-03.
7. Sri Basudev Mohapatra's Plan for Boudh Division for 1975-76 to 1994-95.
8. Sri G. Mohapatra's Working Plan for Athgarh Division for
9. First Management Plan for Satkosia Gorge Sanctuary prepared by Sri A.K.Mishra for the period 2000 to 2010.
10. Rainfall, Temperature Data from Central Water Commission at Tikarapada.
11. Rainfall, Temperature, Humidity data from Office of Collector, Angul District.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<1 file(s) uploaded>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<3 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Gharials (DFO, SATKOSIA, 09-09-2020)



Indian Skimmer (Soroj Panda, 25-12-2020)



Brown-headed Gull (Soroj Panda, 25-12-2020)



Great Cormorant (Soroj Panda, 25-12-2020)



Great Egret (Soroj Panda, 25-12-2020)



Indian Skimmer (Soroj Panda, 25-12-2020)



View of Satkosia Gorge (Soroj Panda, 25-12-2020)



View of Satkosia Gorge (Soroj Panda, 25-12-2020)



Satkosia Gorge (Soroj Panda, 25-12-2020)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation



Biswajit Mohanty <kachhapa@gmail.com>

Request to stop Sand Resort Eco tourism facility at the Mahanadi river bed at Badmul and other harmful tourism activities like motorboat cruise in core area of tiger reserve and Tree top canopy walk for bird observation at Satkosia Tiger Reserve -

Biswajit Mohanty <kachhapa@gmail.com>

Wed, 2 Aug at 6:41PM

Reply to: <kachhapa@gmail.com>

To: <forestenv2016@gmail.com>, <fesec.or@nic.in>, odisha wildlife <odishawildlife@gmail.com>, <mahanadiwl.dfo@gmail.com>, <ms-ntca@nic.in>, <secy-moef@nic.in>, <direnvodisha@gmail.com>, <roez.bsr-mef@nic.in>, <msobb@rediffmail.com>

WSO Logo_letterhead.jpg

*Ref. No.: WC/ 14/2023***By E-mail***Dated: 2nd August, 2023.***TO**

1. Additional Chief Secretary, Forest and Environment, Climate Change Department, Government of Odisha, Secretariat Building, Bhubaneswar-751001,

E-mail: forestenv2016@gmail.com, fesec.or@nic.in

2. Director Environment, Forest Environment Climate Change Department, Government of Odisha-cum- Chairperson Grievance Committee under Wetland Rules 2017

E-mail: direnvodisha@gmail.com

3. The Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Odisha , Prakruti Bhavan, Saheed Nagar, Bhubaneswar-751007

E-mail : odishawildlife@gmail.com

4. Divisional Forest Officer, Mahanadi Wildlife Division , At/PO-
Nayagarh, Odisha
E-mail: mahanadiwl.dfo@gmail.com

5. The ADG(Project Tiger) & Member Secretary, National Tiger
Conservation Authority (NTCA) , B-1 Wing, 7th Floor, Pt.
Deendayal Antodaya Bhawan, CGO Complex, New Delhi-110003.
E-mail : ms-ntca@nic.in

6. Chairperson, National Wetland Committee, Government of India, Ministry of
Environment, Forest and Climate Change, Government of India , Indira
Paryavaran Bhavan, Jorbagh Road, New Delhi -110003
E-mail: secy-moef@nic.in

7. The Deputy Director General of Forests(C), Ministry of Environment
and Forests and Climate Change, Integrated Regional Office, A/3,
Chandrasekharpur, Bhubaneswar-75103
E-mail: roez.bsr-mef@nic.in

7. Member Secretary, State Biodiversity Board, RPRC, Ekamra Kanan
, Bhubaneswar -751015
E-mail : msobb@rediffmail.com

-
Dear Sir,

**Sub- Request to stop Sand Resort Eco tourism facility at the Mahanadi
river bed at Badmul and other harmful tourism activities like motorboat cruise in
core area of tiger reserve and Tree top canopy walk for bird observation at
Satkosia Tiger Reserve - A Ramsar Site and a Tiger Reserve notified by the
National Tiger Conservation Authority.**

-

Wildlife Society of Orissa, a registered society working on the issue of environment and wildlife in state of Odisha, would like to bring your kind attention to this pressing issue of the Badmul Sand Resort Eco Tourism unit that has been illegally operating in a wetland of international importance being a notified Ramsar site and a Tiger Reserve on the bed of the river Mahanadi. We also further bring to your kind notice that harmful tourism activities (motor boat cruise in Satkosia Gorge / Tree top canopy walk for bird observation that directly impact local wildlife are being conducted in this Tiger Reserve

1. That Satkosia Gorge on the river Mahanadi is a rich bio diverse wetland as per the following information published in the Ramsar Wetlands Database.

This establishes the importance of this wetland that was designated a Ramsar Site on 12.10.2021 :

“Established in 1976 as a wildlife sanctuary, Satkosia Gorge in Angul district of Odisha State is a mosaic of rivers, marshes and evergreen forests at the meeting point of two biogeographic regions, the Deccan Peninsula and the Eastern Ghats. These wetland habitats support a variety of plant and animal communities. Notable plant species include asan (*Terminalia alata*), dhaura (*Anogeissus latifolia*), simal (*Bombax ceiba*), Indian thorny bamboo (*Bambusa arundinacea*) and Calcutta bamboo (*Dendrocalamus strictus*); while animal species include red-crowned roofed turtle (*Batagur kachuga*), Indian narrow-headed softshell turtle (*Chitra indica*), tiger (*Panthera tigris*) and black-bellied tern (*Sterna acuticauda*). The wetland is also known for providing a variety of ecosystem services to surrounding communities like fishing, recharging of groundwater, climate regulation, and safety from floods. It also provides recreational and tourism opportunities and supports spiritual and cultural practices. Fire suppression, drought, drainage, and extreme temperatures are some of the high-impact threats affecting the ecological integrity of the Site.”

2. That an assessment of the avifauna was done by Birdlife International and Bombay Natural History Society (BNHS) and Satkosia Gorge and proposed Tiger Reserve was declared as an IBA (Important Bird Area) in 2003 since it was an habitat for endangered birds like Indian Skimmer(*Rynchops albicollis*) and pratincoles. Even in 2003 Birdlife

International recorded a high threat pressure of the habitat . The IUCN has classified this species in its Red List and hence utmost care is needed for protection of its habitat.

3. That Satkosia Gorge sand bars is one of three known nesting sites for the Indian Skimmer in Odisha. The species is a globally threatened bird listed as Endangered under the IUCN whose world population is estimated at about 2,900 birds which is decreasing every year. Indian Skimmers are ground nesting birds and nest on sand bars in riverine habitats . Any human activity like camping or fishing near their nests will drive them away or they may abandon the eggs even after laying them.

4. That Satkosia Tiger Reserve in the state of Odisha is operating eco tourism projects that are clearly in violation of Guidelines issued by the NTCA and earlier orders of Hon'ble Supreme Court which prohibit harmful and disturbing tourism inside Tiger Reserves.).

5. Some of the activities that are being promoted in the name of “eco tourism” have irreversible impacts on local wildlife and cannot be permitted in the Tiger Reserve. The adverse impacts of each activity being conducted by the Mahandi Wildlife Division are elaborated as follows :

a) The Badmul Sand Resort :

More than 16 Swiss Cottage tents with attendant Dining huts are pitched on the river bed of Mahanadi river bed during the tourist season from October to May for accommodation. Bonfires are lighted at night. The website also advertises folk dance every evening with camp fire and sand sports like Volleyball/ Basket Ball and Football . Folk dance with music and sound are extremely harmful for local wildlife. Similarly, sports played on the sandy river bed will lead to sand compaction which will make the habitat unsuitable for ground dwelling, burrowing and egg laying fauna.

River beds are unique ecological spaces that deserve to be left alone. No activity on a river bed should be permitted inside a Tiger Reserve since it snatches away wildlife feeding and basking area. The Mahanadi river bed within the Tiger Reserve is used for basking and nesting by turtles and crocodiles. Birds like terns and Pratincoles use it for nesting and feeding. It is one of the internationally recognized nesting sites for the Indian Skimmer a globally threatened bird listed under IUCN Appendix.

Setting up of tents and allowing tourists to stay on river beds impacts such wildlife and affects their ecological needs including basking which is vital for metabolism of cold blooded creatures.

Bonfires at night also affects nocturnal wildlife, disorients their vision thereby impacting their ability to feed and move about freely. The shouting of tourists is a clear disturbance for wildlife who avoid the entire sand bank which was their traditional home since thousands of years .

b) The Satkosia Gorge river cruise :

The Satkosia Tiger Reserve conducts motorized boat cruises inside the Gorge which is an harmful practice in the Core area of a Tiger Reserve. The sound and vibration of outboard motor engines run by diesel/kerosene disturb aquatic fauna like turtles, fish, crocodiles and avian fauna like migratory water fowl that are seen in large numbers. Very often crocodiles and turtles that are basking on the river bank have to dive when they see the approaching tourist boat which affects their metabolism dependent upon winter basking.

Birds like migratory water fowl cannot even rest or feed properly once they sight an approaching boat whether it is a country boat or a motorized boat.

c) Treetop Canopy walk for bird watching:

The Satkosia Tiger Reserve has erected a Tree top canopy walk for tourists for bird watching which is another disturbing tourist activity. Birds use the tree canopy for nesting, roosting and resting. They shall be disturbed if tourists approach them at close distance of 10-15 feet to watch them at the same level much above the ground. Their chicks shall equally be stressed if humans approach them. Tourists can easily use binoculars which is the practice world wide to watch birds from a distance. This tree top canopy walk should be immediately dismantled.

6) The needs of wildlife are paramount in a Tiger Reserve since it is created for wildlife needs and not for entertainment of tourists. These needs cannot be sacrificed at the altar of tourism revenues by setting up all kinds of non permissible facilities to attract tourists since tourism in a Tiger Reserve needs to be highly controlled and should have

zero impact on its habitat and wildlife .

7) That being aggrieved with the ongoing harmful tourism activity inside the Satkosia Tiger Reserve the Society filed several complaints with the National Tiger Conservation Authority (NTCA). Some letters were issued by the NTCA to the Chief Wildlife Odisha seeking a report . The chronology is submitted hereunder :

a) On 28thOctober,2019 the Society filed objections with the ADG(Project Tiger) and Member Secretary, NTCA vide letter No. WC/35/2019 pointing out the various illegal activities . The applicant also demanded immediate directions to the Chief Wildlife Warden, Odisha to stop such harmful tourism activities.

-

b) That on 30thOctober,2019 a factual report was sought by the AIG- NTCA from the Chief Wildlife Warden, Odisha regarding the above complaint.

-

c) A reminder was sent to the NTCA again on 14thJuly,2020 by the Society pointing out lack of action regarding our earlier complaint dated 28thOctober,2019.

d) A second reminder was sent to the NTCA on 21stAugust,2020 drawing attention to the earlier complaints and lack of action thereon.

-

e) A third reminder was sent to the NTCA on 12thOctober, 2020 drawing attention to the earlier three complaints and lack of action thereon.

f) A reminder was sent on 14thDecember,2020 by Dy. IGF (NTCA) to the Chief Wildlife Warden drawing his attention to the lack of response to the earlier letter dated 30thOctober,2019.

g) A fourth reminder was sent to the NTCA on 9thFebruary,2021 pointing out lack of action on our earlier four complaints regarding this matter.

h) That in response the DIG-NTCA issued an O.M. on 10thFebruary,2021 directing the AIG-NTCA Regional Office, Nagpur to enquire into the complaint for a factual status.

i) That the complainant awaited the result of the enquiry ordered by the NTCA for 20 months which unfortunately was never conducted. Hence a reminder was sent on 15th October, 2022 by the Society demanding action on our earlier complaints. In the meanwhile the state tourism department had already started advertising the Sand Resorts at Badmul to be set up for the tourism season of 2022-2023.

8. It maybe observed that no visible action had been taken despite our complaint lodged almost three years nine months ago with the NTCA

9. The Satkoshia Gorge Sanctuary Location: 84°47'46" - 84°51'21" / 20°30'12" - 20°35'22" has been listed as Wetland Type: River (Gorge) - Mahanadi in the National Wetland Atlas published in 2010. The Atlas has described this as

*“A stretch of 22 km of Mahanadi river in the Satkoshia Gorge between Tikerpara and Barmul has been declared as sanctuary in 1976 to protect and conserve the endangered Gharial (*Gavialis gangeticus*) The area of the sanctuary is estimated to be 79,552 ha”*

10. The site was further notified as a Ramsar Convention wetland in 2022. All Ramsar site are protected under Wetland Conservation Rules 2017.

1. As per the Ramsar Convention, a wetland is defined as ‘areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tides does not exceed six meters’. In addition, to protect coherent sites, Article 2.1 of the Convention provides that ‘wetlands may include riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six meters at low tide lying within the wetlands.’

2. That the Wetlands are protected under the Wetlands (Conservation and Management) Rules, 2017. Allocation of wetlands for any other purpose constitutes a violation of statutory requirement under the Environment (Protection) Act, 1986 and the Wetlands (Conservation and Management) Rules, 2017 in addition to running contrary to the Principle of Sustainable Development, the Precautionary Principle, the Public Trust Doctrine and the Eco-centric approach propounded by the Hon’ble Supreme Court of India. By changing the land use for recreational purposes and altering the land use will

seriously affect the purpose it was serving.

3. It is widely recognized that Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs. An immense variety of species of microbes, plants, insects, amphibians, reptiles, birds, fish and mammals can be part of a wetland ecosystem. Climate, landscape shape (topology), geology and the movement and abundance of water help to determine the plants and animals that inhabit each wetland. The complex, dynamic relationships among the organisms inhabiting the wetland environment are called food webs. The future of humanity depends on wetlands. Wetlands are some of the most important biodiversity areas in the world. Many of the challenges of the future can be met through conserving and sustainably using wetlands, such as food and water security, human health, disaster risk reduction and climate change resilience. Wetlands can be thought of as "biological supermarkets." They provide great volumes of food that attract many animal species. These animals use wetlands for part of or all of their lifecycle. The functions of a wetland and the values of these functions to humans depend on a complex set of Relationships between the wetland and the other ecosystems in the watershed. A watershed is a geographic area in which water, sediments and dissolved materials drain from higher elevations to a common low-lying outlet or basin a point on a larger stream, lake, underlying aquifer or estuary. Role in Mitigating Climate Change : Wetlands' microbes, plants and wildlife are part of global cycles for water, nitrogen and sulfur. Thus wetlands help to moderate global climate conditions

4. That MoEFCC vide letter dated **8th March 2022**, addressing all the state governments reiterated the need for Protection of Wetlands as per Rule 4 of the Wetlands (Conservation and Management) Rules, 2017 and further highlighted the Hon'ble **Supreme Court Order dated 4th October 2017 in W.P. (C) No. 230 of 2001** has inter-alia, directed that, "We make it clear and reiterate that in terms of our order dated 8th February, 2017, around 2,01,503 wetlands that have been **mapped by the Union of India should continue to remain protected on the same principles as were formulated in Rule 4 of the Wetlands(Conservation and Management) Rules, 2010**". 2. The same has been communicated by this Ministry to all the States and UTs in November, 2017.

Hon'ble NGT has also reiterated the same in various recent cases. 3. In view of above, it is once again clarified/reiterated that the 2,01, 503 wetlands (>2.25 ha) as per the National Wetland Inventory and Assessment (NWIA), 2011 should be protected as per Rule 4 of the Wetlands (Conservation and Management) Rules, 2017. This protection is irrespective of the applicability of/notification as per the said Rules.

5. Wetlands and Sustainable Development Goals: The sustainable use of water and wetlands, by protecting the services they provide, is critical to enable society to achieve sustainable social and economic development, adapt to climate change and improve social cohesion and economic stability. The United Nations Sustainable Development Goals (SDGs) offer a universal agenda that, for the first time, recognises the need for restoration and management of water related ecosystems, including wetlands, as a basis for addressing water scarcity and water risks. Wetlands are a solution for several key challenges around the world related to water, food and climate, and key to meeting the SDGs. Most of the SDGs are relevant in some way or another to wetlands, but the following are of particular importance

6. That Wetland Atlas of 2010 estimates of various wetland categories for Orissa have been carried out using GIS layers of wetland boundary, water-spread, aquatic vegetation and turbidity.

7. The major wetland types are River/Stream (223522 ha) comprising about 32 per cent of extent wetlands (Table 5) followed by Reservoir/Barrage (189972 ha), Tank/ Ponds (29301 ha), Lagoon (89023 ha), Intertidal mudflats (25514 ha) and Mangroves (23395 ha). The aquatic vegetation was observed to constituting about 10 per cent of wetland area in post-monsoon (62733 ha) has shown a significant increase during pre-monsoon (142584 ha) that turns out to be about 23 per cent.

8. As you know, in exercise of the powers conferred by section 25, read with sub-section (1) and clause (v) of sub-section (2) and sub-section (3) of section 3 and section 23 of the Environment (Protection) Act, 1986 and in supersession of the Wetlands (Conservation and Management) Rules, 2010, except as respects things done or omitted to be done before such supersession, the Central Government , MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE has notified rules for conservation and management of wetlands,

namely Wetlands (Conservation and Management) Rules, 2017 vide NOTIFICATION dated 26th September, 2017

9. While notifying the Rules 2017 the MoEFCC has acknowledged in its preamble that the wetlands are vital parts of the hydrological cycle, are highly productive ecosystems which support rich biodiversity and provide a wide range of ecosystem services such as water storage, water purification, flood mitigation, erosion control, aquifer recharge, microclimate regulation, aesthetic enhancement of landscapes while simultaneously supporting many significant recreational, social and cultural activities, being part of our rich cultural heritage;

10. It further acknowledges that many wetlands are threatened by reclamation and degradation through drainage and landfill, pollution (discharge of domestic and industrial effluents, disposal of solid wastes), hydrological alteration (water withdrawal and changes in inflow and outflow), over-exploitation of their natural resources resulting in loss of biodiversity and disruption in ecosystem services provided by wetlands;

11. And whereas clause (g) of article 51A of the Constitution stipulates that it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures;

12. And whereas the Environment (Protection) Act, 1986 is a comprehensive legislation to provide protection and improvement of the environment, including inter-alia, wetlands, and for matters connected therewith; And whereas the National Environment Policy, 2006 recognises the ecosystem services provided by wetlands and emphasizes the need to set up a regulatory mechanism for all wetlands so as to maintain their ecological character, and ultimately support their integrated management;

13. And whereas India is a signatory to the Ramsar Convention on Wetlands and is committed to conservation and wise use of all wetlands within its territory;

14. And whereas the Central Government has published the Wetlands (Conservation and Management) Rules, 2010, vide number G.S.R. 951(E), dated the 4th December, 2010;

15. And whereas conservation and wise use of wetlands can provide substantial direct and indirect economic benefits to state and national economy, and thereby

the Central Government stands committed to mainstreaming full range of wetland biodiversity and ecosystem services in development planning and decision making for various sectors;

16. And whereas the State Governments and Union Territory Administrations need to take into account wetland ecosystem services and biodiversity values likewise within their developmental programming and economic well-being, also taking into cognizance that land and water, two major ecological constituents of wetland ecosystems, are enlisted as State subjects as per the Constitution;

17. Government of Odisha vide Gazette Notification dated **21st May 2018** has constituted state wetland authority with including 20 members under the Chairmanship of Honble Minister for Forest and Environment

18. That Rule-4 (Restrictions of activities in wetlands).—

(1) The wetlands shall be conserved and managed in accordance with the principle of 'wise use' as determined by the Wetlands Authority.

(2) The following activities shall be prohibited within the wetlands, namely,-

(i) conversion for non-wetland uses including encroachment of any kind;

(ii) setting up of any industry and expansion of existing industries;

(iii) manufacture or handling or storage or disposal of construction and demolition waste covered under the Construction and Demolition Waste Management Rules, 2016; hazardous substances covered under the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 or the Rules for Manufacture, Use, Import, Export and Storage of Hazardous Micro-organisms Genetically engineered organisms or cells, 1989 or the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008; electronic waste covered under the E-Waste (Management) Rules, 2016;

(iv) solid waste dumping;

(v) discharge of untreated wastes and effluents from industries, cities, towns, villages and other human settlements;

(vi) any construction of a permanent nature except for boat jetties within fifty metres from the mean high flood level observed in the past ten years calculated from the date of commencement of these rules; and,

(vii) poaching.

19. That Rule 7 provides Delegation of powers and functions to the State Governments and Union Territory Administrations.—

(1) The concerned Department of the State Government or Union Territory Administration shall, within a period of one year from the date of publication of these rules, **prepare a Brief Document for each of the wetland identified for notification, providing:—**

(a) **demarcation of wetland boundary** supported by accurate digital maps with coordinates and validated by ground truthing;

(b) **demarcation of its zone of influence and land use and land cover** thereof indicated in a digital map; (c) ecological character description;

(d) account of pre-existing rights and privileges;

(e) list of **site-specific activities to be permitted** within the wetland and its zone of influence;

(f) list of site specific **activities to be regulated** within the wetland and its zone of influence; and

(g) modalities for enforcement of regulation;

(2) Based on the Brief Document, **the Authority shall make recommendations to the State Government or Union Territory Administration for notifying the wetlands.**

(3) The State Government or Union Territory Administration shall, after considering the objections, if any, from the concerned and affected persons, **notify the wetlands in the Official Gazette, within a period not exceeding 240 days from the date of recommendation by the Authority.**

(5) (a) The Central Government shall create a dedicated web portal for

information relating to wetlands. (b) The Central Government, State Government and Union Territory Administration shall upload all relevant information and documents pertaining to wetlands in their jurisdiction.

20. That in view of the objectives of the Wetlands (Conservation and Management) Rules, 2017 more particularly need for identification and demarcation of zone of influence of wetland and as of now no such effort has been made by the state authorities as well as the district authority. The same is evident from the reply furnished by Forest and Environment Department under RTI dated 19/01/2023.

21. The MOEFCC in Lok Sabha on 19/07/2019 responded to starred questions of Hon'ble MPs confirming requirement for constitution of grievance committee and delegation of power to state authorities to notify the wetlands.

22. On 7/02/2020 the grievance committee constituted by state forest and environment department under chairmanship of Director, Environment- cum- Special Secretary to Forest and Environment department.

11. That in this case the authorities construct temporary tourist accommodation and recreation facilities in the sandy river bank/islands of the Satkosia Gorge which is named as Badmul Sand Resorts which amounts to change of land use inside a Ramsar wetland for at least 8 months of the year (October to May). This has a direct impact on local flora and fauna. That tourism facilities in Satkosia Tiger Reserve should not be permitted in the river bed nor should any motorized boat cruise be allowed in the Satkosia Gorge of the Mahanadi river since it is inside the core area of a notified Tiger Reserve.

12. In view of the Precautionary Principle's and the objectives of the Wetland Conservation and Management Rules 2017 and greater need to safeguard the environment, habitat and wildlife of a notified Tiger Reserve and a Ramsar wetland site there is an urgent need to stop harmful tourism activities listed above that are carried out by the Mahanadi Wildlife Division during the tourism season of eight months from October to May and restore the habitat to its original condition.

Yours sincerely,

Biswajit Mohanty, Ph.D.,
Secretary, Wildlife Society of Orissa

Dated : 2nd August, 2023

Attached :

(1) Three photos downloaded on 1st August, 2023 from the website of OFDC Ecotourism Odisha showing activity & facilities advertised, motor boat cruise in Satkosia Gorge and Tented accommodation at Badmul river bed and Volley Ball played on river bed as pointed out in our first complaint dated 28.10.2019.

(2) Our first complaint to the NTCA sent on 28.10.2019 vide mail

(3) Two letters dtd. 30.10.2019 and reminder dated 14.12.2020 issued by the NTCA to the Chief Wildlife Warden, Odisha calling for a report on the complaint filed by us.

(4) O.M. dated 10.2.2021 issued by the NTCA to the AIG, NTCA Regional Office, Nagpur directing enquiry into our complaint.

[Quoted text hidden]

Extract from OFDC Eco tourism Website showing tents on river bed and Sports played at Satkosia Sand Resort .png, Extract from OFDC Ecotourism website - Motor boat cruise in Satkosia Gorge - core area of Satkosia Tiger Reserve.png, Extract from OFDC Ecotourism Website for Sand Resort - advertising facilities.pdf, OM_adverse_impact_of_tourism 10.2.2021.pdf, Satkosia letter to NTCA-28.10.2019.pdf, NTCA reply -30.10.2019.pdf, NTCA letter dtd. 14.12.2020 to CWLW.pdf

[At A Glance \(satkosia-sand-resort-badmul-nature-camp.php\)](#)

[Where To Stay \(satkosia-sand-resort-badmul-where-to-stay.php\)](#)

[How to Reach \(satkosia-sand-resort-badmul-how-to-reach.php\)](#)

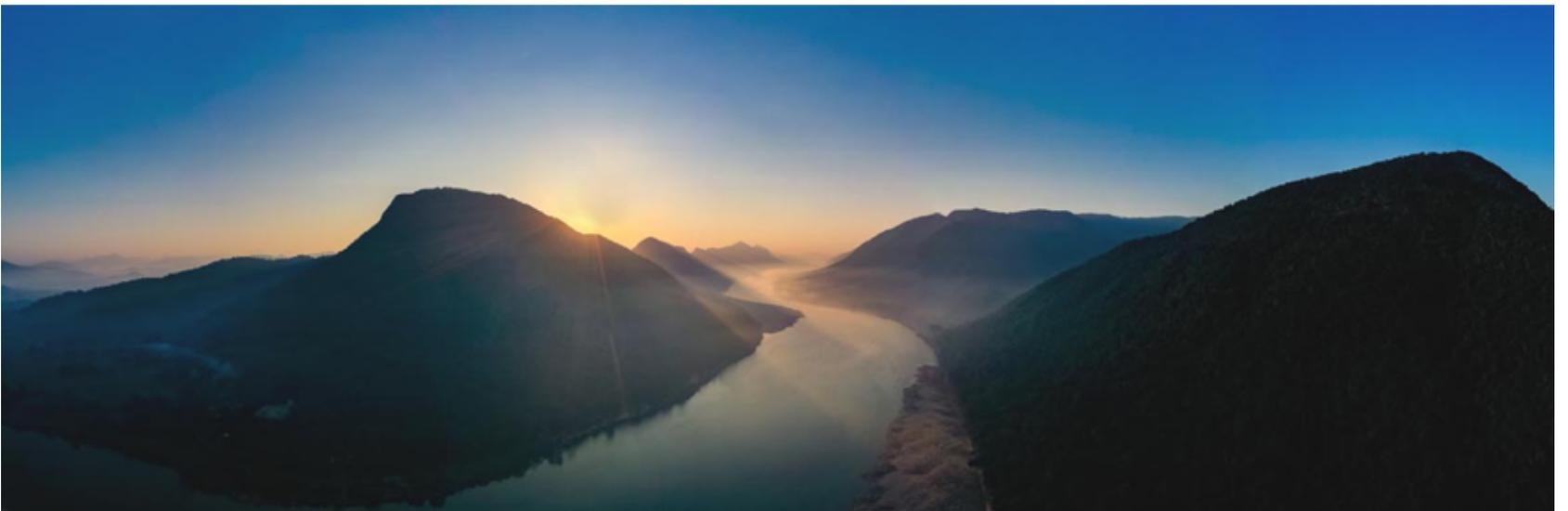
[Nearby Destinations \(satkosia-sand-resort-badmul-nearby-destinations.php\)](#)

[Price Chart \(satkosia-sand-resort-badmul-price-chart.php\)](#) [Feedback \(satkosia-sand-resort-badmul-feedback.php\)](#)

[Bookings \(satkosia-sand-resort-badmul-bookings.php\)](#) [Contact \(satkosia-sand-resort-badmul-contact.php\)](#)

SATKOSIA SANDS RESORT (BADMUL) » AT A GLANCE





Satkosia Sands Resort (Boating Facility On Spot Payment)

Activities:

Camping, Boating in Satkosia-Mahanadi River Cruise , Dance Festival, Sand Sports ,Eco Cycling, Swimming, Jungle Trek & Birding. **Booking Open round the year.** All 3 types of accommodations are within the Campus of the Resort.

*** **AC Cottage** (3 Nos)On Mountain Slope(of River Mahanadi) available round the year.Book your stay - Rs.4500/- Per Night Stay including Fooding of Two Persons.(Taxes Extra)

** **Swiss Cottage Tents** (AC)(4 Nos) On Mountain Slope (of River Mahanadi) available round the year. Book your stay- Rs.4000/- Per Night Stay Including Fooding of Two Persons.(Taxes Extra &).

* **Swiss Cottage Tents** (16 Nos) On Sandbar of River Mahanadi (BOOKING OPEN) Tents on Sandbar will start from November 15th 2022 to March 15th 2023 - Rs.3500/- Per Night Stay. Accommodation Charge includes Night stay, Fooding for Two Persons . (Taxes Extra)

One extra person can be accommodated in each accommodation by on spot cash payment of Rs 1000/- (including fooding). Fooding and rooms for vehicle drivers are available(on spot payment,Rs300/- for food,stay is free)

Folk Dance every evening. Sand Sports : Volley Ball/ Basket Ball/ Football/ Badminton.

Adventurous Cycling in Jungle and Swimming in River Mahanadi.

**Fooding : Odiya and Indian Cuisine Veg and Non-Veg (Organic Vegetables of Local Farm).
Breakfast/ Lunch/ Evening Snacks/ Dinner (Tea Complimentary)**

Badmul | Nayagarh
SATKOSIA SANDS RESORT
BETHERE..

BOOKINGS OPEN

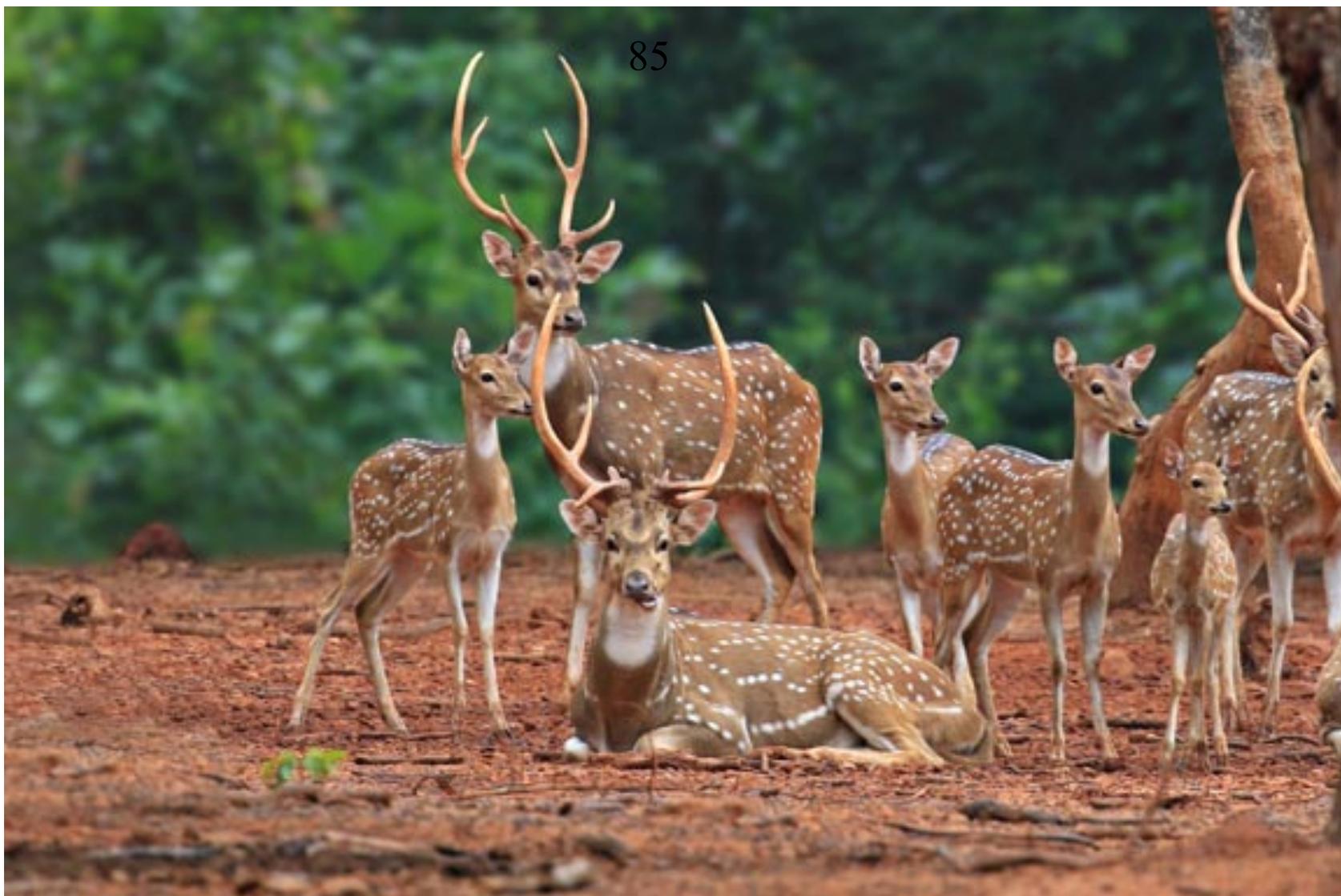
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 An Initiative of
Mahanadi Wildlife Division,
Forest and Environment Department
Govt. of Odisha







Mugger Large



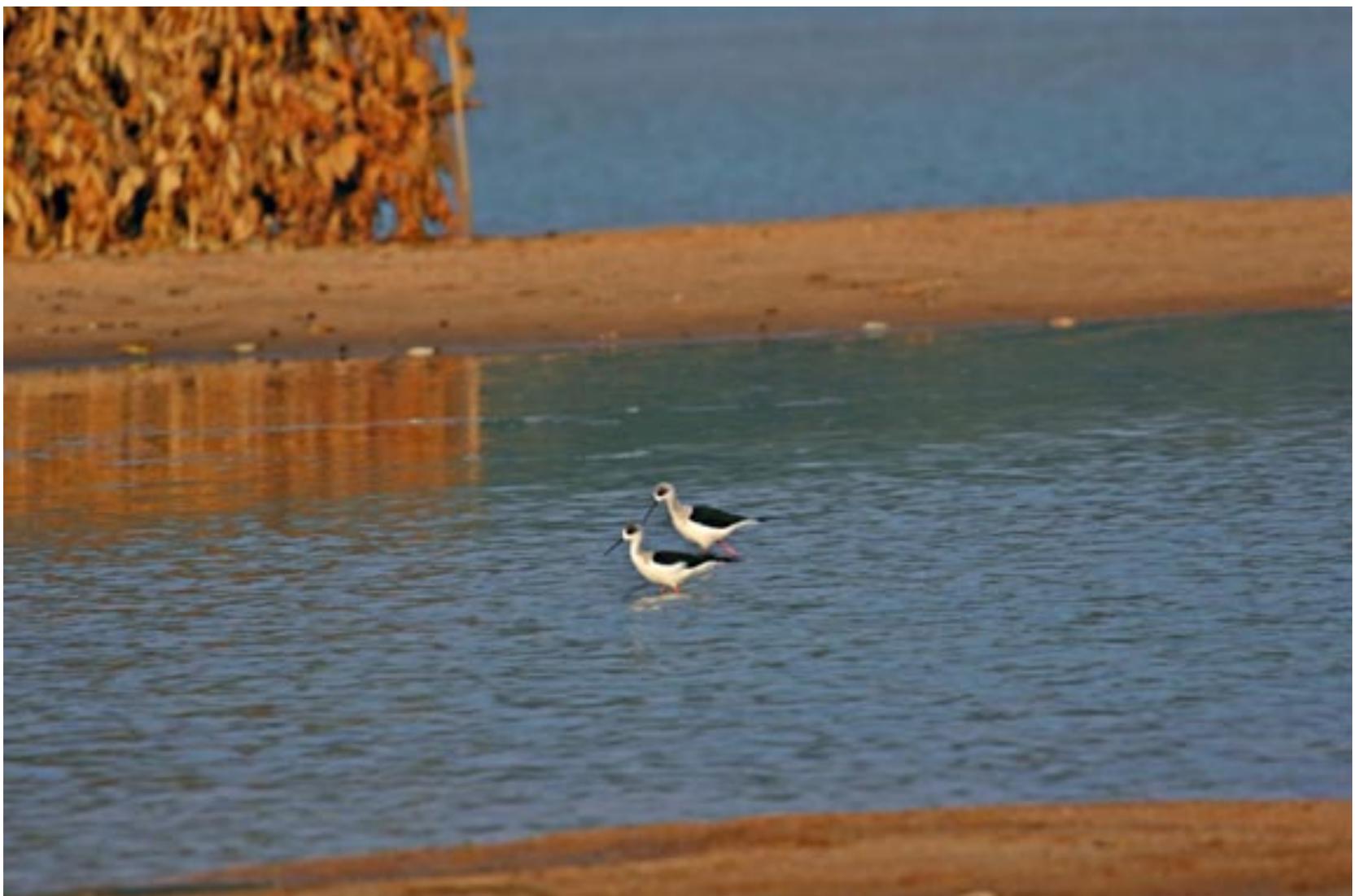
Mugger





Surrounded by the jungles of Satkosia Tiger Reserve, on the bank of river Mahanadi “Satkosia Sands Resort” at Badmul is on the foothills of majestic mountains facing the Satkosia Gorge of magnanimous Mahanadi River meandering through the golden sand bars. The alarm call of Spotted Deer & Sambar makes one realize that Satkosia is a Tiger Reserve after all. It’s the jungle of Leopards, Dholes and Wild Cats. The Crocodiles basking on the white sands on a wintery morning with the backdrop of rising sun is a picture that is real here. The eco-resort has has 3 luxurious AC Cottages& 4 Luxurious AC Swiss Cottage Tented Cottages on mountain slope facing the Satkosia Gorge and the eco-campus has 12 luxurious Swiss Cotton Tents pitched on the Sandbar of River Mahanadi. The tourists can spend evenings watching local Folk dance rounding it off with Star Gazing, Bonfire and Open Sky Dinner on Sandbar. Sands Sports, Boating in the Satkosia Gorge, Cycling in the Jungle, Sunbath & Swimming in River Mahanadi with trekking through the hills with our veteran Eco-Guides makes your day well spent in the wild. Satkosia Gorge is also a favorable destination for many migratory birds. In winters, Badmul is the only place where 100’s of Indian Skimmers can be seen on Sandbars with Brahminy Ducks, Pintails, Bar Headed Geese, Thicknees’s, Pratincoles, Herons, Gulls, Lapwings etc. You can see Muggers & Turtles basking on River bank/ Sandbar during Boating in Satkosia Gorge (Satkosia River Cruise). The Resort offers organic, delicious Odiya & Indian Veg/Non-veg cuisine in the open sky dinning on River Sandbar overlooking the Gorge, River & Mountains.

89
The whispering sound of ripples of river mixed with the melodic chirping of birds makes its way through your luxurious tents, rejuvenating your mornings & evenings. The Resort is a favoured destination for Wildlife Writers & Photographers.





Indian Skimmer Large







Osprey



Great Hornbill



Flameback Large



Giant Squirrel



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- › Department of Tourism, GoO (<http://www.odishatourism.gov.in/>)



Biswajit Mohanty <kachhapa@gmail.com>

Adverse impact of tourism in Satkosia Tiger Reserve – Need for directions from NTCA

Biswajit Mohanty <kachhapa@gmail.com>
Reply-To: kachhapa@gmail.com
To: "Dr. Anup Kumar Nayak" <ms-ntca@nic.in>

Mon, Oct 28, 2019 at 2:45 PM

Ref. No. : WC /35/ 2019
mail

By E-

Dated : 28th October, 2019

The ADG(Project Tiger) & Member Secretary,
National Tiger Conservation Authority,
B-1 Wing, 7th Floor, Pt. Deendayal Antyodaya Bhawan,
CGO Complex, New Delhi-110003.

Dear Sir,

**Re : Adverse impact of tourism in Satkosia Tiger Reserve –
- Need for directions from NTCA**

We wish to bring to your kind attention that Satkosia Tiger Reserve is operating eco tourism projects that are clearly in violation of Guidelines issued by the NTCA and earlier orders of Hon'ble Supreme Court which prohibit harmful and disturbing tourism inside Tiger Reserves. We have attached a downloaded PDF document from the website of Ecotourism Odisha that describes the various tourist facilities at Satkosia TR.

Some of the activities that are being promoted in the name of "eco tourism" have enormous and deep lasting impacts on local wildlife and should have never been permitted them inside any Tiger Reserve to attract tourists. The tourism projects and their adverse impacts are elaborated as follows :

1) The Badmul Sand Resort :

More than 20 tents are pitched on the river bed of Mahanadi river bed and used for accomodation of tourists. Bonfires are lighted at night. The website of Ecotourism Odisha also advertises folk dance every evening with camp fire and sand sports like Volleyball/ Basket Ball and Football . Folk dance with music and sound will be extremely harmful for local wildlife. Similarly, sand sports will lead to sand compaction which will make the habitat unsuitable for ground dwelling, burrowing and egg laying fauna.

River beds are unique ecological spaces that deserve to be left alone. No activity on a river bed should be permitted inside a Tiger Reserve since it snatches away wildlife feeding and basking area. The Mahanadi river bed within the Tiger Reseve is used for basking and nesting by turtles and crocodiles. Birds like Indian Skimmers, terns and Pratincoles use it for nesting and feeding. Setting up of tents and allowing tourists to stay on river beds impacts such wildlife and affects their ecological needs including basking which is vital for metabolism of cold blooded creatures. Bonfires

at night also affects nocturnal wildlife, disorients their vision thereby impacting their ability to feed and move about freely. The shouting and laughing of tourists is a clear disturbance for local wildlife who shall avoid the entire sand bank which was their traditional home since hundreds of years .
As an alternative the entire tent resort can be shifted outside the river bed and relocated on the outskirts of Badmul or other village with a strict condition not to allow bonfires or folk dances.

2) The Satkosia Gorge river cruise :

The Satkosia Tiger Reserve conducts motorized boat cruises inside the Gorge which is an extremely harmful practice being allowed in the Core area of a Tiger Reserve. The sound and vibration of OBM engines disturb aquatic fauna like turtles, fish, crocodiles and avian fauna like migratory water fowl that are seen in large numbers. Very often crocodiles and turtles that are basking on the river bank have to dive when they see the approaching tourist boat which affects their metabolism dependent upon winter basking.

Boating of any kind inside the Mahandi river gorge should be completely banned as it affects wildlife . Birds like migratory water fowl cannot even rest or feed properly once they sight an approaching boat whether it is a country boat or a motorized boat.

3) Treetop bridge walk:

The Satkosia Tiger Reserve has erected a Tree top canopy walk for tourists for bird watching which we feel is another disturbing tourist activity. Birds use the tree canopy for nesting and roosting and even for resting. They shall be disturbed if tourists approach them at close distance of 10-15 feet to watch them at the same level much above the ground. Their chicks shall equally be stressed if humans approach them.

Tourists can easily use binoculars which is the practice world wide to watch birds from a distance. We, therefore, suggest that this tree top canopy walk should be immediately dismantled in the interest of bird conservation.

The tourism season has begun and we apprehend more damage to local wildlife unless steps are taken to address the concerns raised above for the three tourism activities/projects we have listed above. The needs of wildlife are paramount in a Tiger Reserve since it is created for wildlife needs and not for entertainment of tourists. These needs cannot be sacrificed at the altar of tourism revenues.

We request you to take urgent note of our above submissions and hope you shall issue appropriate orders under the Wildlife (Protection) Act, 1972 to the Chief Wildlife Warden, Odisha to take necessary steps in Satkosia Tiger Reserve to modify/stop such harmful eco tourism projects. This would surely ensure a safe and disturbance free habitat for local wildlife of the Tiger Reserve.

With kind regards,
Yours sincerely,

Biswajit Mohanty, Ph.D,
Secretary, Wildlife Society of Orissa

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 **Satkosia Tourism Eco tour Odisha.pdf**
5612K



Biswajit Mohanty <kachhapa@gmail.com>

Our earlier complaint dated 28.10.2019 about tourism projects in Satkosia Tiger Reserve

Biswajit Mohanty <kachhapa@gmail.com>

Tue, 14 Jul 2020 at 2:44 PM

Reply to: <kachhapa@gmail.com>

To: Dr. Anup Kumar Nayak <ms-ntca@nic.in>, Dr Amit Mallick <ig-ntca@nic.in>

WSO Letter head.jpg

No. : WC /37/ 2020

By E-mail

Dated: 14th July, 2020

Dr. S.P. Yadav, IFS,
ADG(Project Tiger) & Member Secretary,
National Tiger Conservation Authority,
B-1 Wing, 7th Floor, Pt. Deendayal Antyodaya Bhawan,
CGO Complex, New Delhi-110003.

Dear Sir,

Re : Adverse impact of tourism in Satkosia Tiger Reserve –
- Need for directions from NTCA
- Our complaint no. WC/35/2019 dated 28.10.2019

We congratulate you on your appointment as the Member Secretary of NTCA and hope you shall contribute immensely to the cause of tiger conservation in India.

We wish to inform you that we had lodged a complaint about harmful tourist activities inside Satkosia Tiger Reserve under the guise of “eco tourism” and the impacts they were having on the local wildlife. (A copy of the said complaint dated 28.10.2019 is attached for your kind perusal)

We regret that no action has been taken on our complaint though 8 1/2 months have elapsed. We apprehend that the Forest Department shall continue these activities once the Park reopens for tourism post monsoon in September, 2020.

We request you to take urgent note of our complaint and issue appropriate orders under the Wildlife (Protection) Act, 1972 to the Chief Wildlife Warden, Odisha to take necessary steps in Satkosia Tiger Reserve to stop such harmful tourism projects.

We shall be extremely grateful for an early action.

With kind regards,



Biswajit Mohanty <kachhapa@gmail.com>

Adverse impact of tourism in Satkosia Tiger Reserve - Our complaint dated 28.10.2019 - Reminder

Biswajit Mohanty <kachhapa@gmail.com>

Fri, 21 Aug 2020 at 2:03 PM

Reply to: <kachhapa@gmail.com>

To: Dr. S. P. Yadav <ms-ntca@nic.in>, Dr Amit Mallick <ig-ntca@nic.in>

WSO Logo_letterhead.jpg

Ref. No. : WC /45 / 2020*By E-mail*Dated: 21st August ,2020

Dr. S.P. Yadav, IFS,
ADG(Project Tiger) & Member Secretary,
National Tiger Conservation Authority,
B-1 Wing, 7th Floor, Pt. Deendayal Antyodaya Bhawan,
CGO Complex, New Delhi-110003.

RE M I N D E R

Dear Sir,

Re : Adverse impact of tourism in Satkosia Tiger Reserve –

- **Need for directions from NTCA**
- **Our complaint no. WC/35/2019 dated 28.10.2019**
- **Our reminder no. WC/37/2020 datsed 14.7.2020**
-

Please refer to the above matter for which we had lodged a complaint with NTCA on 28thOctobe,2020 followed up by a reminder dated 14thJuly,2020.

We regret to observe that no action has been taken on our complaint though 10 months have elapsed . We apprehend that the these harmful activities shall be re started once the Sand Resort built on the bed of the River Mahanadi opens for business in September,2020 after the rainy season is over.

We once again request you to take urgent note of our complaint and issues raised there and issue appropriate orders under the Wildlife (Protection) Act,1972 to the Chief Wildlife Warden, Odisha

We shall be extremely grateful for an early action.

With kind regards,
Yours sincerely,



Biswajit Mohanty <kachhapa@gmail.com>

Adverse impact of tourism in Satkosia Tiger Reserve - Third Reminder

Biswajit Mohanty <kachhapa@gmail.com>

Mon, 12 Oct 2020 at 2:26 PM

Reply to: <kachhapa@gmail.com>

To: Dr. S. P. Yadav <ms-ntca@nic.in>

WSO Logo_letterhead.jpg

Ref. No. : WC /57 / 2020

By E-

mail

Dated: 12th October ,2020

Dr. S.P. Yadav, IFS,
ADG(Project Tiger) & Member Secretary,
National Tiger Conservation Authority,
B-1 Wing, 7th Floor, Pt. Deendayal Antyodaya Bhawan,
CGO Complex, New Delhi-110003.

THIRD REMINDER

Dear Sir,

Re : Adverse impact of tourism in Satkosia Tiger Reserve –

- **Need for directions from NTCA**
- **Our complaint no. WC/35/2019 dated 28.10.2019**
- **Our reminder no. WC/37/2020 dated 14.7.2020**
- **Our second reminder no. WC/45/2020 dated 21.8.2020**
-

Please refer to the above matter regarding adverse impact of uncontrolled tourism in Satkosia Tiger Reserve. We had lodged a complaint with NTCA on 28thOctober,2019 followed by two reminders dated 14thJuly & 21stAugust,2020 .

Though the original complaint is almost one year old we regret to see the inaction by NTCA to resolve the issues raised therein.

We apprehend that these harmful activities shall be re started once the Sand Resort built on the bed of the River Mahanadi opens for business this month since rainy season shall end soon.

We once again request you to take urgent note of our complaint, conduct an enquiry and issue appropriate orders under the Wildlife (Protection) Act,1972 to the Chief Wildlife Warden, Odisha



Biswajit Mohanty <kachhapa@gmail.com>

One year old complaint pending for action - Adverse tourism impacts in Satkosia TR

Biswajit Mohanty <kachhapa@gmail.com>

Mon, 23 Nov 2020 at 9:29 AM

Reply to: <kachhapa@gmail.com>

To: SP Yadav <spyadavifs@gmail.com>, DIG(NTCA) <jdntca@gmail.com>, Dr. S. P. Yadav <ms-ntca@nic.in>

WSO Logo_letterhead.jpg

Ref. No. : WC /61 / 2020

By E-mail

Dated: 23rd November, 2020

Dr. S.P. Yadav, IFS,
ADG(Project Tiger) & Member Secretary,
National Tiger Conservation Authority,
B-1 Wing, 7th Floor, Pt. Deendayal Antyodaya Bhawan,
CGO Complex, New Delhi-110003.

FOURTH REMINDER

Dear Sir,

Re : Adverse impact of tourism in Satkosia Tiger Reserve –

- **No action despite repeated complaints over last one year.**
- **Our complaint no. WC/35/2019 dated 28.10.2019**
- **Our reminder no. WC/37/2020 dated 14.7.2020**
- **Our second reminder no. WC/45/2020 dated 21.8.2020**
- **Our third reminder No. WC/61/2020 dated 12.10.2020**
-

Please refer to the above matter regarding adverse impact of uncontrolled tourism in Satkosia Tiger Reserve. We had lodged a complaint with NTCA last year on 28th October, 2019 followed by three reminders quoted above .

Though the original complaint is more than a year old we are appalled that NTCA has failed to issue appropriate orders to the state government to resolve the grave issue of harmful tourism activities inside a Tiger Reserve. We had listed the specific activities that are extremely damaging and cannot be permitted in a Tiger Reserve. We are concerned that elephant herds which normally use the river for drinking and bathing would avoid their old habits after seeing the disturbing tent city on the river bed and the blazing bonfires in the night.

The state government has announced an Eco Retreat at the bed of the River Mahanadi for which bookings have already started. It is clear that more tents will be pitched in the sandy river bed disturbing the local wildlife and there will be countless motorized boating trips in the Satkosia Gorge which is the Core area of the Tiger Reserve. How can NTCA permit motorized tourist boats in the core area of a Tiger Reserve ?

We once again request you to take urgent note of our complaint, conduct an enquiry and issue appropriate orders under the Wildlife (Protection) Act,1972 to the state government.

We trust you share our concern for the safety and well being of all wildlife that have a right to live undisturbed in a Tiger Reserve .

With kind regards,
Yours sincerely,

Biswajit Mohanty, Ph.D,
Secretary, Wildlife Society of Orissa
[Quoted text hidden]

भारत सरकार

Government of India

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Ministry of Environment, Forest and Climate Change

राष्ट्रीय व्याघ्र संरक्षण प्राधिकरण

National Tiger Conservation Authority

F. No. 1-11/2008-NTCA (Vol.I)

New Delhi, the October 30, 2019

To,

The Chief Wildlife Warden,
OdishaSub: Adverse impact of tourism in Satkosia Tiger Reserve.
Ref. Email from Mr. Biswajit Mohanty.

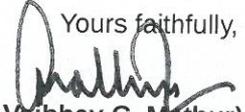
Sir,

Reference is invited to the subject cited above. In this regard, I am directed to request you to kindly furnish factual status in respect of the grievance cited in the email enclosed which is in context of eco-tourism at the Satkosia Tiger reserve.

An expeditious response is kindly requested.

Encl. As above

Yours faithfully,



(Dr. Vaibhav C. Mathur)

Assistant Inspector General (NTCA)

Email: aig3-ntca@nic.in

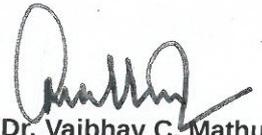
Tel. (EPABX): + 91 11 24367837-39

FAX: +91 11 24367836

F. No. 1-11/2008-NTCA (Vol.I)

Copy to:

1. The Field Director, Satkosia Tiger Reserve.
2. The AIG(NTCA), Regional Office, Nagpur.



(Dr. Vaibhav C. Mathur)

Assistant Inspector General (NTCA)

OC
Issued
with Encl.
Rohy
31/10/19

Government of India

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Ministry of Environment, Forest and Climate Change

राष्ट्रीय व्याघ्र संरक्षण प्राधिकरण

National Tiger Conservation Authority

F. No.1-11/2008-NTCA

New Delhi, the February 10th , 2021OFFICE MEMORANDUM**Sub: Adverse impact of tourism in Satkosia Tiger Reserve-reg.**

Reference is invited to the subject cited above. In this context, I am directed to enclose herewith a copy of complaint received from Dr Bishwajit Mohanty, Wildlife Society of Orissa, and request you to cause an inquiry and submit the report to this Authority at the earliest.

Encl: As above.**(Rajendra G. Garawad)****Deputy Inspector General of Forests (NTCA)**

Email: dig2-ntca@nic.in

Tel. (EPABX): + 91 11 24367837-39

FAX: +91 11 24367836**To ,**

AIG, NTCA, Regional Office,

Nagpur

Copy to:

- 1.The Chief Wildlife Warden, Govt. of Odisha.
- 2.The Field Director, Satkosia Tiger Reserve, Odisha.
- 3.Dr. Biswajit Mohanty, Secretary, Wildlife Society of Orissa.

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(<https://www.downtoearth.org.in/wildlife-and-biodiversity>)

Odisha: Gharial hatchlings spotted three years in a row, 35 seen this time

Critically endangered reptile hatchlings seen in Mahanadi river's Satkosia gorge, a Ramsar site

 (<https://api.whatsapp.com/send?text=Odisha: Gharial hatchlings spotted three years in a row, 35 seen this time https://www.downtoearth.org.in/news/wildlife-biodiversity/odisha-gharial-hatchlings-spotted-three-years-in-a-row-35-seen-this-time-89626>)

 (<https://api.whatsapp.com/send?text=Odisha: Gharial hatchlings spotted three years in a row, 35 seen this time https://www.downtoearth.org.in/news/wildlife-biodiversity/odisha-gharial-hatchlings-spotted-three-years-in-a-row-35-seen-this-time-89626>)



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NEXT NEWS >

By Hrusikesh Mohanty (<https://www.downtoearth.org.in/author/hrusikesh-mohanty-183954>)
Published: Monday 29 May 2023



📍 Hatchlings of the gharial (*Gavialis gangeticus*), a crocodile species, at the Satkosia gorge in the Mahanadi river. Photo: Hrusikesh Mohanty

Forest officials have spotted around 35 hatchlings of the gharial (<https://www.downtoearth.org.in/news/wildlife-biodiversity/wwf-confirms-the-presence-of-gharials-in-pakistan-s-punjab-89436>) *Gavialis gangeticus* (<https://www.downtoearth.org.in/news/wildlife-biodiversity/wwf-confirms-the-presence-of-gharials-in-pakistan-s-punjab-89436>) (<https://www.downtoearth.org.in/news/wildlife-biodiversity/wwf->

confirms-the-presence-of-gharials-in-pakistan-s-punjab-89436), a crocodile species, at the Satkosia gorge in the Mahanadi river in Odisha's Angul district May 25, 2023. The species is unique to the Indian subcontinent and is critically endangered.

This is the third consecutive year of successful breeding of these reptiles in the natural habitat in the freshwater of the Mahanadi river. The river is the southernmost limit of the gharials' home range in India, official sources said.

Read more: Illegal sand mining, constructions endanger Son gharials (<https://www.downtoearth.org.in/news/mining/illegal-sand-mining-constructions-endanger-son-gharials-78651>)

In the last two years, the hatchlings were spotted at a nesting site (<https://www.downtoearth.org.in/news/wildlife-biodiversity/more-than-5-000-gharials-born-in-chambal-sanctuary-66277>) at Baladamara, close to Tikarpada in Satkosia Wildlife Division. "The baby gharials have been spotted at the same breeding site this year as well," said Saroj Kumar Panda, divisional forest officer, Satkosia.

The tiny hatchlings, along with their mother crocodile, have been spotted from CCTV footage, installed by the wildlife officials near the gorge for surveillance of the eggs of the gharials.

"We are delighted as the gharial breeding took place in the natural habitat for the last three years in a row," said Jitshatru Mohanty, a retired senior forest officer.



The gorge, a designated Ramsar site, is a narrow stretch of the river and is located within Satkosia Tiger Reserve, near Tikarapada. It is approximately 22 kilometres in length and part of Satkosia sanctuary covering an area of 795.59 square km notified by the Odisha government in 1976.

On May 22, 2021, 28 baby gharials were spotted in the area, reportedly for the first time after a gap of several years. The year after, 32 gharial hatchlings were seen on May 11, 2022. Around 10 to 15 of them were found in the gorge, said DFO.

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- Officials count 122 saltwater crocodile nests in Bhitarkanika
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Forest officials suspect that the fishing-eating crocodiles might have swum their way downstream of the river in search of prey. A fishermen's net captured a juvenile gharial at Narasinghapur on May 25.

On March 5, 2022, forest officials rescued a 3.35 metre-long gharial near the Puri canal near Hansapal on the outskirts of Bhubaneswar.

The successful breeding of the gharial in the natural habitat was attributed due to the strict prohibition of fishing around 9 km downstream of the river since 2019, said Panda. "We are only allowing the fishermen of Tikarapada for the fishing using hooks, not by nets," he said.

"We are monitoring the activities of the juveniles round the clock, with CCTVs near the gorge to prevent any harm inflicted by man or some other predators in the gorge," said the DFO. Forest personnel are also patrolling the area at night to protect them.

The forest department has launched an awareness drive to save the crocodiles in over 300 villages spreading over five districts: Boudh, Angul, Cuttack, Sonapur and Nayagarh, sources said

According to the experts, mother crocodiles dig pits on the ground during March and April, lay eggs, and cover it with sand and soil. About a month before actual nesting, the mother may start exploring the nesting ground by scooping out a few "trial nests" without using these to deposit eggs.

The nests are located above the summer water level and are normally safe from inundation by monsoon floods. After about 75 days of incubation, before the river water starts rising, the hatchlings out and escape inundation, the experts said.

To avoid high spates of a flood, the mother escorts the hatchlings into creeks and nullahs that drain into the main river, they said.

Read more: Endangered gharials die mysterious death (<https://www.downtoearth.org.in/news/endangered-gharials-die-mysterious-death-4025>)

The gharial is listed in Schedule 1 of the Wildlife (Protection) Act, 1972 and also described as critically endangered on the International Union for Conservation of Nature Red List of Threatened Species.

Their habitat is threatened because of human encroachment and fishing activities. They are genetically weaker than saltwater crocodiles and muggers, wildlife experts said.

Gharials caught accidentally in fishing nets are either hacked to death or have their snout chopped off by fishermen.

Read more:

- South Asian nations will now cooperate to save the vulture (<https://www.downtoearth.org.in/news/south-asian-nations-will-now-cooperate-to-save-the-vulture--38122>)
- India's first census of waterbodies is a much awaited one but experts question the methodology; here is why (<https://www.downtoearth.org.in/news/india-s-first-census-of-waterbodies-is-a-much-awaited-one-but-experts-question-the-methodology-here-is-why-89234>)
- Muger crocodiles in Gujarat's Charotar region have tripled in past decade, count by wildlife non-profit reveals (<https://www.downtoearth.org.in/news/wildlife-biodiversity/muger-crocodiles-in-gujarat-s-charotar-region-have-tripled-in-past-decade-count-by-wildlife-non-profit-reveals-89611>)

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gharial (<https://www.downtoearth.org.in/tag/gharial>)

satkosia tiger reserve (<https://www.downtoearth.org.in/tag/satkosia-tiger-reserve>)

Government of India
Ministry of Environment, Forest and Climate Change
(Forest Conservation Division)

Indira Paryavaran Bhawan,
Aliganj, Jorbagh Road,
New Delhi-110003

Dated: 25th October, 2021

To

The Principal Secretary (Forests),
All State Governments/UT Administrations

Sub: Undertaking Ecotourism activities in forest areas vis-a-vis provisions of the Forest (Conservation) Act, 1980 – reg.

Sir,

I am directed to refer to the minutes of the Forest Advisory Committee (FAC) in their meetings held on dated 23.04.2019 and 23.01.2020 wherein based on representations received from various State Governments, it recommended to amend para 11.10 of the Handbook of Forest (Conservation) Act, 1980, clarifying that; construction of permanent structure for the purpose of ecotourism on forest land shall be considered as a non-forestry activity.

Subsequently based on the recommendation of the FAC in their meeting on 17.02.2021 and accepted of the same by the competent authority in the Ministry, following have been decided:

i. Para 11.10 of the Handbook of Forest (Conservation) Act, 1980, shall read as:

"Development/construction of facilities which are not of permanent nature, in forest areas for the purpose of ecotourism by Government authorities shall not be considered as non-forestry activity for the purpose of Forest (Conservation) Act, 1980."

ii. Paras 1.18 (iv) and 12.13 of the Handbook of Forest (Conservation) Act, 1980, stand deleted.

This issued with the approval of the competent authority of the Ministry.

Yours faithfully,

sd/-

**(Sandeep
Sharma)**

Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, All State Governments/UT Administrations
2. The Regional Officer, All Integrated Regional Offices of the MoEF&CC
3. The Addl. PCCF & Nodal Officer (FCA), Office of the PCCF, All State/UIT Governments
4. Monitoring Cell, FC Division, MoEF, New Delhi
5. Guard File

Government of India
Ministry of Environment, Forests and Climate Change
Wildlife Division

6th Floor, Vayu Wing
Indira Paryavaran Bhawan,
Jor Bag Road, Aliganj,
New Delhi-110003

F. No. 1-57/2014 WL

Dated: 19th September 2018

1. The Pr. Chief Conservator of Forests & HoFF
All States/UT Governments
2. The Chief Wildlife Warden
All States/UT Governments

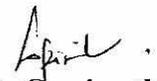
Sub: Policy for Eco-tourism in Forest and Wildlife Areas- Reg.

Sir,

Forests and wildlife are inseparable elements of environmental integrity and therefore, a participatory approach towards building the intricate interface between humans and forests is imperative.

2. With a view to practice eco-tourism in a ecofriendly manner, a policy has been prepared by this Ministry. The Eco-Tourism Policy is primarily prepared for wildlife, forest and areas having significant aesthetic appeal for nature. A copy of the document is enclosed.
3. The State/UT Governments may take further necessary action, in this regard.

Yours faithfully,



(Dr. R. Gopinath)
Joint Director (WL)
Telefax: 011-24695379
E.mail: jd-wl@nic.in

Encl: As above.

Copy to:

1. Principal Secretary (Forests), all States/UT Governments.
2. The Joint Secretary, Niche Tourism, Ministry of Tourism, Parivahan Bhawan,
New Delhi.

POLICY

FOR

ECO-TOURISM IN FOREST AND

WILDLIFE AREAS



सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF ENVIRONMENT FOREST AND

CLIMATE CHANGE

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
POLICY FOR ECO-TOURISM IN FOREST AND WILDLIFE AREAS

1. BACKGROUND

Eco-tourism may be defined as '**responsible travel to natural areas that conserves the environment and improves the well-being of local people**' (*TIES*). Forests and wildlife are elements of nature and inseparable parts of the environment. Because of the intricate nature of interface between nature and human beings, nature conservation must entail participation of people as a non negotiable component. The participation in this endeavour includes not only the forest fringe dwellers, but also those who may be living away from the forests. Eco-tourism may be developed in wildlife conservation areas designated as Protected Areas (PAs) – Wildlife Sanctuaries, National Parks, Conservation Reserves and Community Reserves., and also in areas outside designated protected Areas, which may include, forests, mangroves, Sacred Groves, mud flats, wetlands, rivers, etc. Appreciation of the various elements of nature, their direct and indirect impact on our survival and intangible services provided by those are of paramount. Visitation to such pristine Areas would facilitate direct appreciation and understanding of the nature. Eco-tourism, when practiced appropriately, besides educating the visitors can also provide livelihood opportunities for the local communities. Hence, there is felt need to develop a model of eco-tourism that is responsible and compatible with sensitivities of the management objectives of the landscapes. However, the objective primarily being for preservation, it is of prime importance that the profile of the natural features are not compromised due to the impact of eco-tourism activities.

2. GOAL

Promoting better understanding of nature and wildlife conservation while generating income and opportunities for the local communities.

3. OBJECTIVES

The following are the broad objectives of the Eco-tourism policy:

- i. Adopting low impact nature tourism which ensures ecological integrity
- ii. Promoting biodiversity richness and heritage values of India's wilderness
- iii. Engaging local communities and developing mechanisms with a view of enriching the local economy and promoting sustainable use of indigenous materials
- iv. Establishing partnerships with all stakeholders for developing and promoting nature tourism.

4. GUIDING PRINCIPLES FOR ECOTOURISM

(i) Eco-tourism Plan: Eco-tourism facilitation within the forest and wildlife areas will be a part of the management/ working plan of the unit. The eco-tourism plan will provide for identified locations/ routes for visitation, permissible activities, permissible time for visit and means of travel. Delineation of inviolate space in the area and seasonal requirements will be specified in the Plan. States may develop benchmarks/ standardized criteria based on site specificity, for adoption of best practices in eco-tourism.

(ii) Eco-tourism zone: Demarcation of areas for tourist visitation, whether within core or buffer or both will depend upon the management requirements and shall be decided based on the target species, their behavioural and habitat characteristics. To maintain ecological integrity, protection of breeding areas and other sensitive sites are necessary. Therefore, those should be excluded from eco-tourism activities. Finalisation of tourism packages, identification of tourism routes, etc. will be done by the respective Protected Area Manager/ DFO in consultation with the State Chief Wildlife Warden.

(iii) Community Participation: It is essential that management of eco-tourism facilitates primarily vests on the local communities as the principal stakeholders. Thus, the benefits flowing from the visitation in the area must also accrue to the local communities by way of livelihood opportunities arising from eco-tourism. This will reinforce their interface and sense of ownership.

Buffer areas, private lands, revenue lands and Reserve Forests around PAs that have good wildlife habitat will be developed for eco-tourism to reduce pressure on sensitive “core” areas and to enhance local benefits.

(iv) Infrastructure development:

Natural profile and ecological integrity of forest and wildlife areas, along with their wildlife/ biodiversity values shall be maintained. Infrastructure for eco-tourism will be so designed that those merge with the ambient environment. These will utilise local resources and avoid use of cement concrete as far as possible.

The activities will be eco-friendly and no permanent structures will be established in violation of Forest (Conservation) Act, 1980.

Considering that the local livelihood improvement is one of the expected outcomes of eco-tourism, homestead based hospitality enterprises will be encouraged.

Construction works like permanent buildings for camps, camping complexes with lodging/ boarding structures, helipads, new roads, tourist bungalows/ commercial lodges etc for eco-tourism purpose shall not be allowed without clearance under Forest (Conservation) Act.

Infrastructure outside Protected Areas will also be developed in eco-friendly manner so that those merge with the surroundings. The extent of infrastructure those will be developed will be limited to the carrying capacity of the area.

5. IMPLEMENTATION STRATEGY

The following are the broad framework for implementation of the Eco-tourism policy:

Strategy i: Identification of potential sites: Each State may identify areas for eco-tourism within the Protected Areas, in pristine areas rich in biodiversity or of aesthetic significance through a participatory process involving stakeholders, particularly the local communities.

Strategy ii: Assessment of Carrying Capacity: Carrying capacities of visitors and vehicles those may be allowed to enter inside the identified area will be assessed and ceiling on number of visitors/vehicles those may allowed to enter the area at any given time, will be fixed. Carrying capacity assessment will cover:

- Number of Persons visiting the PA at different points of time
- Number of Vehicles/boats, etc. entering the PA
- Infrastructure
- Duration of the visits
- Duration of exposure of the PA to Eco-tourism activities

An illustrative calculation of carrying capacity, as worked out in the 'Guidelines for tourism in Tiger Reserves' is at ANNEXURE.

Strategy iii: Capacity building: Field functionaries will be imparted specialized training on Eco-tourism activities. Capacities of local communities will be built to act as nature guides and to provide hospitality management services. This may include training to discharge specialized tasks such as tourist guides, natural science interpreters, patrol partners for protection work, entrepreneurs for small scale homestead based hospitality industry, small business operators (like souvenir shops, equipments for hire, photography etc).

The State Governments may charge a conservation fee for overall eco-development. The conservation fee may be decided based on the number of persons visiting the facility, the duration of operation of the facility (seasonal or year round) and on a luxury classification system such as home stay to high-end. The rate of conservation fee and tourist facility strata will be determined by the State Government and the funds, so collected will be

earmarked to address local livelihood development issues, human wildlife conflict management and conservation through eco-development.

Strategy iv: Sharing of Revenue benefits: Considering that eco-tourism is an economic activity, it is important that the eco-tourism plan incorporates a feasible revenue sharing mechanism for the stakeholders.

Provision will be made for establishment of foundations, either for each of the identified area or an umbrella Foundation to cover multiple areas. The funds accrued from eco-tourism activities in the Foundations will be utilised for community development, and running of eco-tourism facilities.

An indicative model for sharing of revenue is as under:

- 40% for payment of remuneration to local community directly involved in running eco-tourism facilities;
- 40% for maintenance of the Eco-tourism facilities
- 10% as incentive to local Eco Development Committee (EDC) or Village Level Forest Management Committee
- 10% as revenue to Government

Strategy v: Monitoring: Eco-tourism plans will invariably include a dynamic monitoring mechanism, covering number of tourists visiting and the pattern, their level of satisfaction, involvement of local people, scope for improvement, etc. This will facilitate prediction of growth and preparation for management of the growth of eco-tourism in terms of visitation management, growth of hospitality facilities in neighbourhood, need for security arrangements for the area and so on.

Strategy vi: Education and Interpretation: For effective use of the eco-tourism potential of the area, the management has to work on an effective education and interpretation plan. The visitors must be sensitized on the significance of conservation and expected behavioural requirements while they are within the pristine area. For this purpose an effective communication plan is essential which must include providing crucial information to the tourists to appreciate the eco-system services and intangible benefits

provided by the area. It will be a good idea to put in place electronic visual tools, well equipped interpretation centre, appropriate signages, audiovisual presentation centers, interactive learning tools, safety protocol and information material on the area for the visitors.

Strategy vii: Interface with District/ State Administration:

Within National Parks, Sanctuaries and Reserved or Protected Forests: Collaboration and coordination amongst the Central and State Government Departments, EDCs, forest dwellers, local communities and civil society institutions will bring about synergy for effective eco-tourism management. States/ District/ Protected Area Steering Committees may be set up.

A local level committee may look like:

Park Manager/ the Divisional Forest Officer- Chair

Honorary Wildlife Warden- Member

Representative of Tourism Department- Member

Representative of Local Panchayat- Member

Representative of Local Communities- Member

Wildlife Experts- Member

Forest Range Officer- Member Secretary.

Mandate:

- To oversee implementation of the eco-tourism strategies and guidelines with respect to the concerned area and make recommendations to the Eco-tourism Board and State/UT Government, wherever necessary;
- To advise local communities on issues relating to development of eco-tourism in areas outside Protected Areas
- To monitor the activities of tour operators and ensure that they follow all safety norms, rules and procedures and do not cause any damage or disturbance to the eco-tourism resources and activities;
- To ensure that the revenue from eco-tourism flow to the local communities.

The State Board for Wildlife may take review of the Tourism activities in the State and make suggestions appropriately.

In case of Conservation Reserves and Community Reserves, the Management Committees constituted under Section 36B and 36D of the Wild Life (Protection) Act, 1972 will advise on activities including tourism in Conservation and Community Reserves and will be in consonance with this policy for eco-tourism in Protected Areas.

The State Board for Wildlife would take review of the Tourism activities in the State and make suggestions appropriately.

There are many Protected Areas with shrines or religious places located within. The tour operators, drivers and shrine controlling authorities need to be given an exposure on the value of forest ecosystems and their ecological services, along with the training to inculcate do's and don'ts during visits of pilgrims into forests and PAs. Cooperation of the local administration will be solicited in line with the mechanisms indicated above.

Strategy viii: Institutional mechanism for implementation: Each State/UT may establish an Eco-Tourism Development Board to advise the State/UT on the eco-tourism modalities and for overseeing the implementation of the policy. The Board would ensure that objectives of this Policy are attained. The State/UT would also ensure adequate Technical and Financial support to the Board. In case of any dispute, the decision of the management of Protected Areas shall prevail.

Enabling provisions for management of eco-tourism within protected areas:

The legal provisions available within the Wild Life (Protection) Act, 1972 for facilitating this include section 29, 30, 33, 33B, 35 (6), 38-O and 64 which provide powers to the state governments to frame rules for carrying out provisions of the Act, and to the Chief Wild Life Wardens to regulate activities within the PAs. The powers for approval of Management plan of a PA are vested with Chief Wild Life Warden. In case of Conservation Reserves and Community Reserves, the powers vested in the respective management committees provide enabling environment for formulation of management plan including the eco-tourism planning within.

ESTIMATION OF CARRYING CAPACITY
(Model Calculation, Example: Kanha Tiger Reserve)

(a) **Physical Carrying Capacity (PCC):** This is the “maximum number of visitors that can physically fit into a defined space, over a particular time”. It is expressed as:

$$PCC = A \times V/a \times Rf$$

Where, A = available area for public use

V/a = one visitor / M²

Rf = rotation factor (number of visits per day)

In order to measure the PCC to Kanha, the following criteria must be taken into account:
Only vehicular movements on forest roads are permitted

The “standing area” is not relevant, but “closeness” between vehicles is important

There is a required distance of at least 500 m (^{1/2} km.) between 2 vehicles to avoid dust (2 vehicles / km.)

At least 3 ½ hours are needed for a single park excursion

The PA is open to tourists for 9 months in a year and 9 hours per day

Linear road lengths within the tourist zone are more relevant than area, and the total lengths are:

Kanha	107.20 km.
Kisli	72.56 km.
Mukki	103 km.
Total	282.76 or 283 km.

Due to constant vehicular use, the entire road length of 283 km. is prone to erosion, out of which around 90 km. is affected more

$$\text{Rotation Factor (Rf)} = \frac{\text{Opening period}}{\text{Average time of one visit}}$$

$$\begin{aligned} \text{Physical Carrying Capacity (PCC)} &= 283 \text{ km.} \times 2 \text{ vehicles / km.} \times 2.6 \\ &= 1471.6 \text{ or } 1472 \text{ visits / day} \end{aligned}$$

(b) **Real Carrying Capacity (RCC):** RCC is the maximum permissible number of visits to a site, once the “reductive factors” (corrective) derived from the particular characteristics of the site have been applied to the PCC. These “reductive factors” (corrective) are based on biophysical, environmental, ecological, social and management variables.

$$RCC = PCC - Cf_1 - Cf_2 \text{ ----- } Cf_n,$$

Where Cf is a corrective factor expressed as a percentage. Thus, the formula for calculating RCC is:

$$RCC = PCC \times \frac{100 - Cf_1}{100} \times \frac{100 - Cf_2}{100} \times \dots \times \frac{100 - Cf_n}{100}$$

Corrective Factors are “site-specific”, and are expressed in percentage as below:

$$Cf = \frac{M_l}{M_t} \times 100$$

Where: Cf = corrective factor
 M_l = limiting magnitude of the variable
 M_t = total magnitude of the variable

- (i) **Road erosion:** Here the susceptibility of the site is taken into account.

Total road length = 283 km. (M_t)
 Medium erosion sink = 50 km. (weighting factor: 2)
 High erosion risk = 40 km. (weighting factor: 3)
 $M_l = 50 \times 2 + 40 \times 3 = 100 + 120 = 220$ km.
 $M_t = 283$ km.

$$Cfe = \frac{220}{283} \times 100 = 77.8 \text{ or } 78\%$$

- (ii) **Disturbance to Wildlife:** Here, species that are prone to disturbance owing to visitation are considered. The Central Indian barasingha, a highly endangered, endemic species found only in Kanha has a courtship period of about 1 month in winter, during which it is extremely sensitive to disturbance. Likewise, the peak courtship activity for spotted deer lasts for two months before the onset of regular monsoon. As far as tigers are concerned, newborns are seen between March and May and also during the rains; hence an average value of two months in a year can be considered as the matter phase.

$$\text{Corrector Factor (Cf)} = \frac{\text{limiting months / year}}{100 \text{ 12 months / year}} \times$$

Corrective Factor for barasingha

$$Cf w_1 = \frac{1}{9} \times 100 = 11.1\%$$

Corrective Factor for spotted deer

$$Cf w_2 = \frac{2}{9} \times 100 = 22.2\%$$

Corrective Factor for tiger

$$Cf w_3 = \frac{2}{9} \times 100 = 22.2\%$$

Overall corrective factor for disturbance of wildlife in Kanha National Park = $Cf w = Cf_1 + Cf_2 + Cf_3$
 $= 11.1 + 22.2 + 22.2 = 55.5$ or 55%

- (iii) **Temporary Closing of Roads:** For maintenance or other managerial reasons, visitation to certain roads may be temporary restricted within the Protected Area. The Corrective Factor in this regard is calculated as:

$$Cf_t = \frac{\text{limiting weeks / year}}{100 \text{ total weeks / year}} \times$$

In Kanha, an average value of 2 limiting weeks per year may be considered as the “limiting weeks”, and thus the corrective factor works out to:

$$Cf_t = \frac{2 \text{ weeks / year}}{100 \text{ weeks / year}} \times 100 = 2\%$$

Computation of RCC

$$\begin{aligned} RCC &= 1472 \times \frac{100-78}{100} \times \frac{100-55}{100} \times \frac{100-5.5}{100} \\ &= 1472 (0.22 \times 0.45 \times 0.95) \\ &= 138.4 \text{ or } 138 \text{ visits / day} \end{aligned}$$

(c) **Effective Permissible Carrying Capacity (ECC):** ECC is the maximum number of visitors that a site can sustain, given the management capacity (MC) available. ECC is obtained by multiplying the real carrying capacity (RCC) with the management capacity (MC). MC is defined as the sum of conditions that PA administration requires if it is to carry out its functions at the optimum level. Limitations in management like lack of staff and infrastructure limit the RCC.

For Kanha, owing to the paucity of staff the MC is around 30%. Hence, $ECC = 138 \times 0.30 = 41.4$ or 40 vehicles / day.

Thus, the Effective Permissible Carrying Capacity on any single day is only 40 vehicles, which should be allowed entry as below:

(Forenoon) = 25 vehicles (inclusive of both entry points)

(Afternoon) = 15 vehicles (inclusive of both entry points)

During peak season (winter months), the staff strength may be increased (only 10%) by deploying “special duty” personnel; this would enhance the ECC to 55 vehicles per day. Further, increase in the number of vehicles would lead to deleterious effects on the habitat.

9.2 Satkoshia Gorge Sanctuary

Name: Satkoshia Gorge Sanctuary

Location: 84°47'46" - 84°51'21"
20°30'12" - 20°35'22"

Wetland Type: River (Gorge) - Mahanadi

A stretch of 22 km of Mahanadi river in the Satkoshia Gorge between Tikerpara and Barmul has been declared as sanctuary in 1976 to protect and conserve the endangered Gharial (*Gavialis gangeticus*). The area of the sanctuary is estimated to be 79,552 ha. The river is very slow-flowing for much part of the year as evident from the satellite data of both post-monsoon as well as pre-monsoon. Several sand bars and gravel beds are exposed at low water levels, which form sites for the Gharial. The last wild hatchlings were observed in 1974. To restore the population, captive-reared individuals are being released to augment the vestigial population. About 107 were reported to have been released during 1977 to 1980. There has been a considerable amount of research centered around the Gharial project.



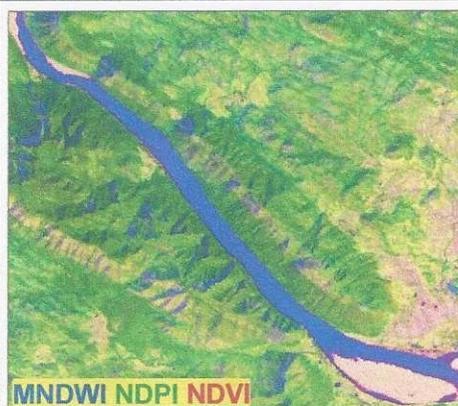
IRS P6 LISS-III FCC (18/12/2006)



FCC OF INDICES (18/12/2006)



IRS P6 LISS-III FCC (28/02/2007)



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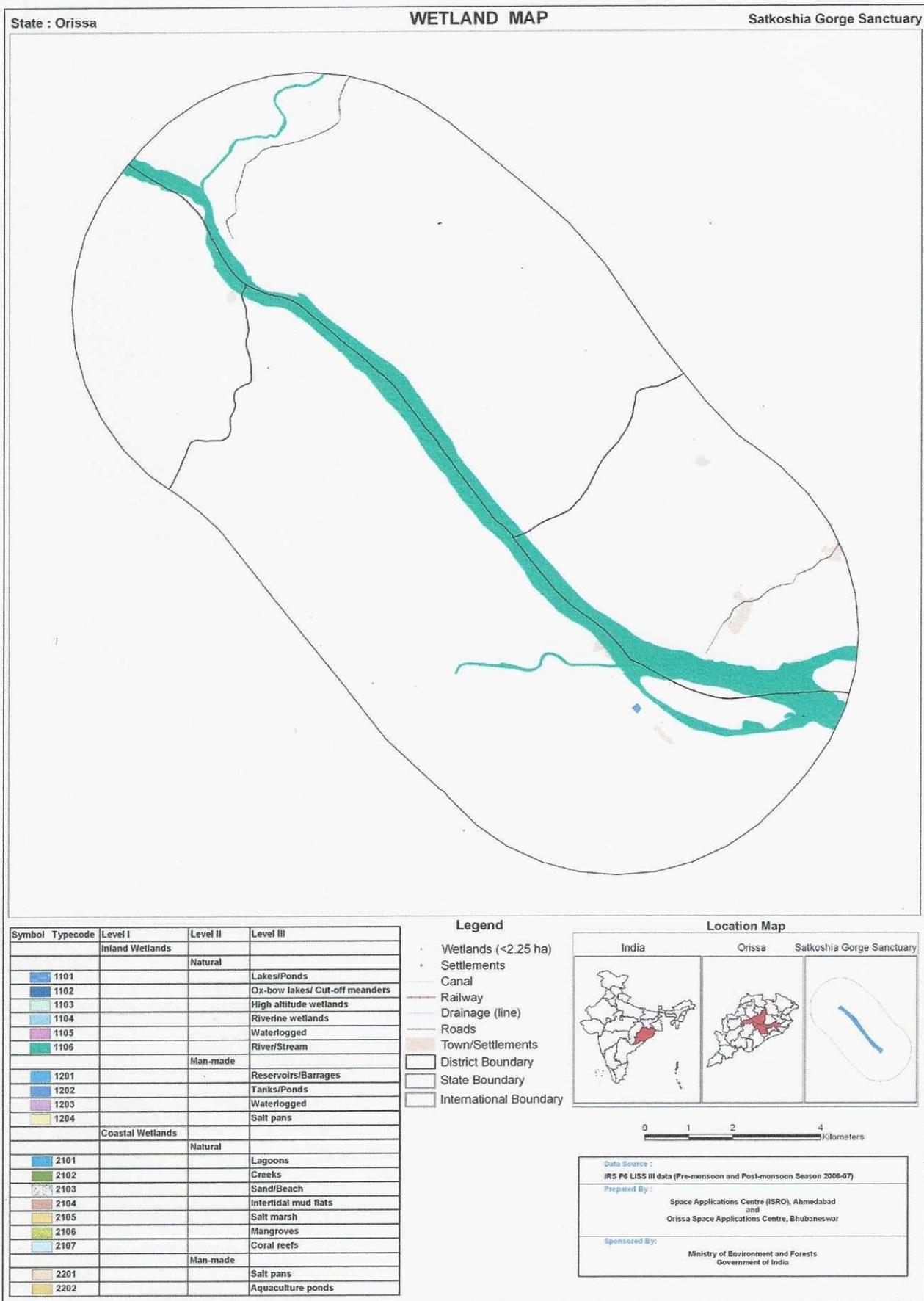


Plate 7: Wetland map - 5 km buffer area of Satkoshia Gorge Sanctuary

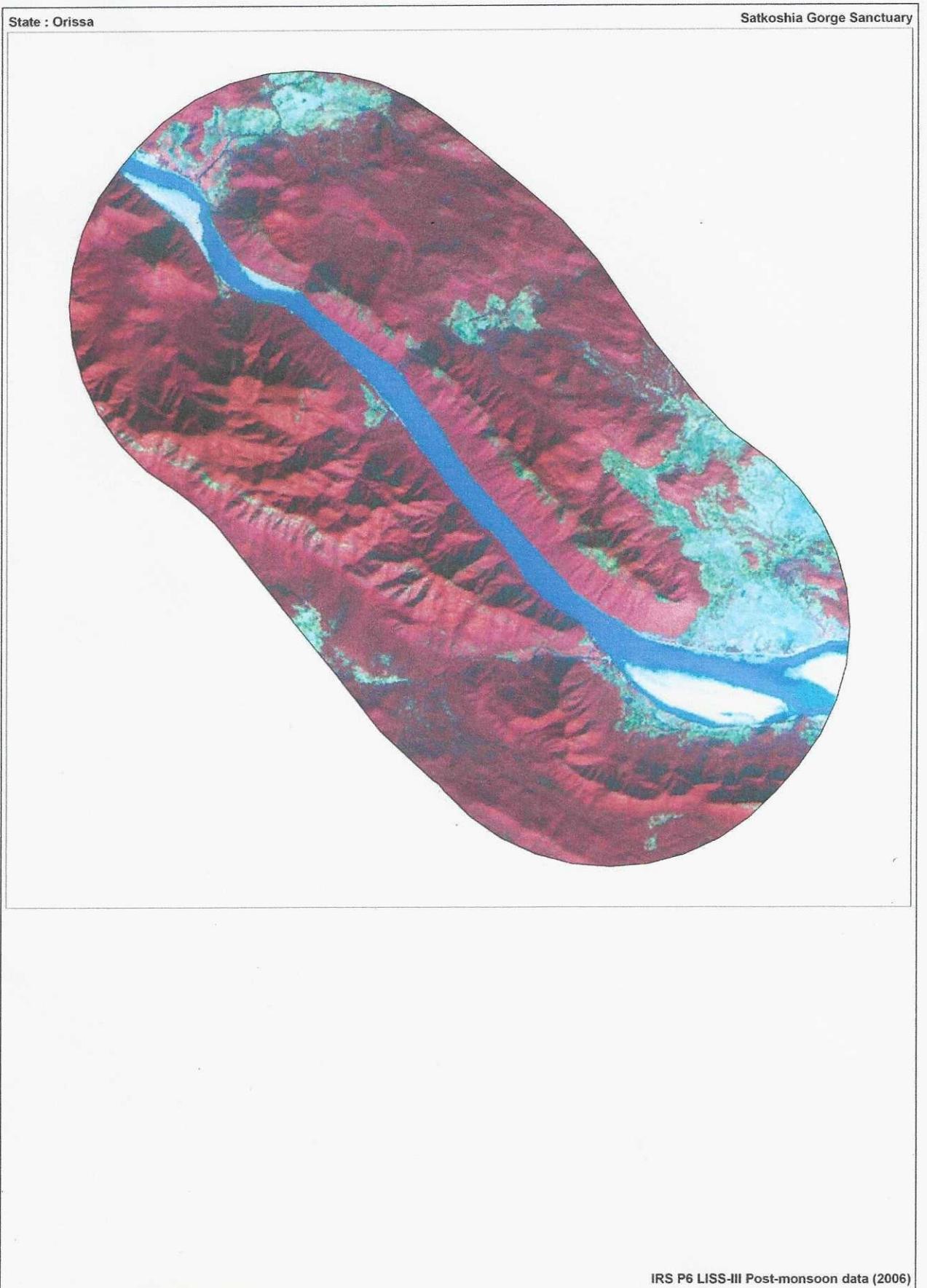


Plate 8: IRS P6 LISS-III image - 5 km buffer area of Satkoshia Gorge Sanctuary

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By Fax & E-mailGovernment of Odisha
Forest and Environment Department

No. ENV-II-47/2019 17590 /F&E, Date. 17/09/2019

From

Dr. K. Murugesan, IFS
Director, Environment -cum-
Special Secretary to Government

To

The Chief Secretary, Odisha
The Principal Secretary, H&UD Department
The Principal Secretary, Rural Development Department
The Principal Secretary, Revenue & D.M Department
The Principal Secretary, Department of Water Resources
The Principal Secretary, Panchayati Raj & D.W. Department.
The Commissioner- cum- Secretary, F & ARD Department
The Commissioner - cum – Secretary, Tourism Department
The Chief Executive, Odisha Space Application Center, Bhubaneswar
The PCCF (WL) & Chief Wildlife Warden, Odisha, Bhubaneswar
The Member Secretary, Odisha Biodiversity Board, Bhubaneswar
The Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar
The Additional PCCF of Regional Office of MoEF & CC, GOI, Bhubaneswar
Dr. Sudarsan Panda, Ex-Director of Horticulture, Odisha, N-4/81, IRC Village, Nayapalli, Bhubaneswar-751015
Shri Surya Kumar Mohanty, Fishery Expert, CDA, Bhubaneswar
Dr. P. Kumar, Scientist, ORSAC, Bhubaneswar
Dr. P.C Panda, Principal Scientist, RPRC, Bhubaneswar
Prof. Sudhakar Panda, Director, Birla Global University, IDCO, Plot No-2 Gothapatena, Bhubaneswar 751029

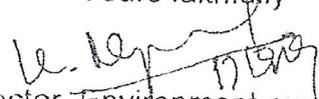
Sub:- Minutes of the 1st Meeting of the State Wetlands Authority constituted as per Rule 5 of the Wetlands (Conservation & Management) Rules, 2017.

Sir,

I am directed to enclose a copy of the minutes of the 1st meeting of the State Wetlands Authority held on 17.08.2019 at 11.30 A.M in the 2nd Floor Conference Hall of the State Lokaseva Bhavan under the Chairmanship of the Hon'ble Minister, Forest & Environment.

It is therefore, requested to kindly take necessary action for compliance of the decisions taken in the aforesaid meeting.

Yours faithfully


 Director, Environment-cum-
 Special Secretary to Government

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Minutes of the meeting of State Wetlands Authority held on 17.08.2019 at 11.30 A.M in 2nd Floor Conference Hall of Odisha Secretariat

The first meeting of State Wetlands Authority constituted under Wetlands (Conservation and Management) Rules, 2017 held on 17.08.2019 at 11.30 A.M. under the Chairmanship of Hon'ble Minister, Forest and Environment in the 2nd floor conference hall of Odisha Secretariat, Bhubaneswar. The list of participants is placed at Annexure-I.

At the outset, Additional Chief Secretary, Forest and Environment Department welcomed the members of the Authority and briefed the objectives of State Wetlands Authority. He further emphasized on conservation and management of all wetlands of the State in compliance to the order of Hon'ble National Green Tribunal.

Hon'ble Minister, Forest and Environment-cum-Chairman of State Wetlands Authority in his address stated that for maintaining ecological balance and to co-ordinate integrated management of wetlands, Govt. of India in the Ministry of Forest Environment & Climate Change has constituted the State Wetlands Authority under Wetlands (Conservation and Management) Rules, 2017, which came into force from 26.09.2017. He further affirmed that wetlands are rich in biodiversity as they support a large variety of plant and animal species, amphibians, fishery resources etc. and are one of the most productive ecosystems. Wetlands directly and indirectly support millions of people in providing services such as food, fibre and raw materials. They play an important role in storm and flood control, in supply of clean water along with other educational and recreational benefits. However, the very existence of these unique ecosystems is under threat due to developmental activities and population pressure. Hence, he called for a long term planning for preservation and conservation of these resources.

Hon'ble Minister indicated that Odisha is fortunate enough to endow with some important wetlands such as largest brackish water lagoon Chilika, wildlife sanctuary Bhitarkanika, sweet-water lake Ansupa, Daha, Kanjia, Kuanria etc. Since wetlands are the target of human interference and are among the most threatened of all natural resources, their identification and protection have become very essential. He highlighted that last year about 172 sq. K.M area was freed from encroachment in Chilika lake thereby increase of fish production by 20%. He pronounced that restoration of Ansupa Lake will be taken up in near future. Further, he specified that MoEF&CC, Govt. of India has recently identified 3 wetlands namely Chilika, Ansupa and Bhitarkanika of our State for initiating restoration

After detail discussion, the State Wetlands Authority approved the same with the following observations:

1. Bathymetry survey of Chilika Lagoon will be done by CDA at the earliest since the last one was done in the year 2009 by INDOMER.
2. It was decided to take up a study under ICZMP for analyzing the core samples to know the rate of sedimentation.
3. Steps shall be taken up for solid waste management at important locations to prevent entry of wastes into Chilika Lake.
4. C.E., ORSAC will submit a proposal to carry out the Bathymetry survey of the Lagoon by using the LIDAR technology.
5. DFO, Athagarh, will take up soil moisture conservation works under MGNREGS in the catchment of Ansupa Lake, out of Rs.100 Crores that has been allocated to the Forest & Environment Department by the Panchayati Raj & Drinking Water Department for the current year. CDA will provide the detail location and proposed soil conservation measures to be taken up to arrest silt load to Ansupa Lake.

The meeting ended with vote of thanks to the chair.

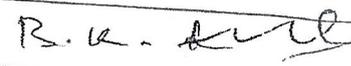
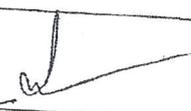
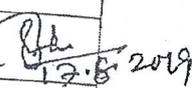
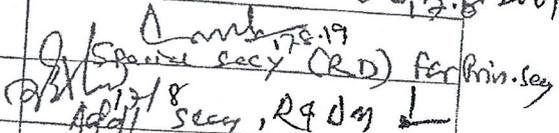
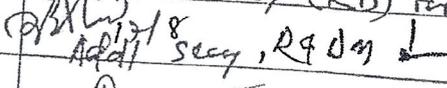
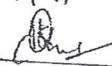
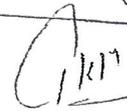
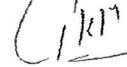
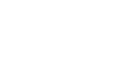
This has been approved by the Hon'ble Minister, Forest & Environment through OSWAS File No. FE-ENV2-ENV-0001-2018.

Approved



Principal Secretary

1ST MEETING OF THE STATE WETLANDS AUTHORITY CONSTITUTED UNDER WETLAND (CONSERVATION & MANAGEMENT) RULES, 2017 HELD ON 17.08.2019 AT 11.30 A.M. IN THE 2ND FLOOR CONFERENCE HALL OF THE LOKASEVA BHAWAN

Sl. No	Members of State Wetlands Authority	Designation	Signature
1	Minister, Forest & Environment.	Chairman	
2	Chief Secretary, Odisha.	Vice Chairman	
3	Additional Chief Secretary, Forest & Environment Department	Member, ex-Officio	
4	Principal Secretary, H & U D Dept.	Member, ex-Officio	for Deputy Secretary  17.8.2019
5	Principal Secretary, Rural Development Dept.	Member, ex-Officio	 17.8.19 for Prin. Secy
6	Principal Secretary, Revenue & D. M. Dept.	Member, ex-Officio	 Addl Secy, R.D.M. ↓
7	Principal Secretary, Dept. of Water Resources	Member, ex-Officio	
8	Commissioner-cum-Secretary, F & A R D Dept. / Addl. Secy	Member, ex-Officio	
9	Commissioner-cum-Secretary, Director and Tourism Dept. Addl. Secy	Member, ex-Officio	
10	Chief Executive, Odisha Space Application Centre (ORSAC)	Member, ex-Officio	 17/08/19
11	P C C F (Wildlife) & Chief Wildlife Warden., BBSR	Member, ex-Officio	 17.08.19
12	Member Secretary, State Biodiversity Board. BBSR	Member, ex-Officio	 17/8/19
13	Member Secretary, SPCB, Odisha. BBSR	Member, ex-Officio	 ARSIS
14	Addl. PCCF of the Regional Office of Ministry of Environment, Forest & Climate Change, Govt. of India, Chandrasekharpur, BBSR	Member, ex-Officio	 P. K. Parashar, 22/8
15	Director, Environment-cum-Special Secretary, Forest & Environment Dept.	Member Secretary	

1ST MEETING OF THE STATE WETLANDS AUTHORITY CONSTITUTED
 UNDER WETLAND (CONSERVATION & MANAGEMENT) RULES, 2017
 HELD ON 17.08.2019 AT 11.30 A.M. IN THE 2ND FLOOR CONFERENCE
 HALL OF THE LOKASEVA BHAWAN

1	Dr. B. K. Patil	Inf officen	
2	Bighnasaj Sahu	f & s Deputy Secretary H & UD Depto	
3	Sulohar Mishra	Jt. Secy. Tourism	
4	Dr. R. N. Samal	So, CDA	
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BEFORE THE NATIONAL GREEN TRIBUNAL

Original Application No. _____ of 2024

In re:

WILDLIFE SOCIETY OF ODISHA

.APPLICANT

Versus

STATE OF ODISHA AND OTHERS ...

RESPONDENTS

KNOW ALL to whom these present shall come I Biswajit Mohanty S/o Biswanath Mohanty aged about 60 years, At/Po- Santikunj, Link Road Cuttack, Dist-Cuttack, Odisha -753012 presently serving as Secretary of the Applicant Organisation, Wildlife Society of Orissa in the abovementioned application and authorized to sign this, do hereby appoint (herein after called the advocate/s) to be my/our Advocate in the above noted case authorized him :-**Sankar Prasad Pani**, Advocates, Plot No 2132/4814 B, Nageswartangi, Bhubaneswar, 751002, Mob-no.9437279278, Email- sankarprasadpani@gmail.com Enrollment no. O-785/07 and Ashutosh Padhy Enrollment no. O-1018/23

To act, appear and plead in the above-noted case in this Court or in any other Court in which the same may be tried or heard and also in the appellate Court including High Court subject to payment of fees separately for each Court by me/ us. To sign, file verify and present pleadings, appeals cross objections or petitions for execution review, revision, withdrawal, compromise or other petitions or affidavits or other documents as may be deemed necessary or proper for the prosecution of the said case in all its stages. To file and take back documents to admit and/or deny the documents of opposite party.

To withdraw or compromise the said case or submit to arbitration any differences or disputes that may arise touching or in any manner relating to the said case. To take execution proceedings. The deposit, draw and receive money, cheques, cash and grant receipts thereof and to do all other acts and things which may be necessary to be done for the progress and in the **STATE OF ODISHA AND OTHERS** e course of the prosecution of the said case. To appoint and instruct any other Legal Practioner, authorizing him to exercise the power and authority hereby conferred upon the Advocate whenever he may think it to do so and to sign the Power of Attorney on our behalf.

And I/We the undersigned do hereby agree to ratify and confirm all acts done by the Advocate or his substitute in the matter as my/our own acts, as if done by me/us to all intents and purposes.

And I/We undertake that I / we or my /our duly authorized agent would appear in the Court on all hearings and will inform the Advocates for appearance when the case is called.

And I /we undersigned do hereby agree not to hold the advocate or his substitute responsible for the result of the said case. The adjournment costs whenever ordered by the Court shall be of the Advocate, which he shall receive and retain himself.

And I /we the undersigned do hereby agree that in the event of the whole or part of the fee agreed by me/us to be paid to the Advocate remaining unpaid he shall be entitled to withdraw from the prosecution of the said case until the same is paid up. The fee settled is only for the above case and above Court. I/We hereby agree that once the fee is paid. I /we will not be entitled for the refund of the same in any case whatsoever. If the case lasts for more than three years, the advocate shall be entitled for additional fee equivalent to half of the agreed fee for every addition three years or part thereof.

IN WITNESS WHEREOF I/We do hereunto set my /our hand to these presents the contents of which have been understood by me/us on this 18th day of Jan 2024.

Accepted subject to the terms of fees.

S.Pani *A.Padhy*
Advocate

For WILDLIFE SOCIETY OF ORISSA

Biswajit Mohanty
SECRETARY

Client