

Item No. 05

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 22/2020(EZ)

Dilip Kumar Samantaray

Applicant

Versus

State of Odisha Board & Ors.

Respondent(s)

Date of hearing: 15.12.2020

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. SATYAWAN SINGH GARBYAL, EXPERT MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant: Mr. Shankar Prasad Pani, Advocate

For Respondent: Mr. Janmejaya Katikia, Advocate for State of Odisha
Mr. Tusar Kumar Mishra, Advocate for R-8

ORDER

1. Vide order dated 16.03.2020, the Tribunal sought a report on factual aspects from a Committee comprising Secretary, Water Resource Department, Orissa and representative of the CPCB, with reference to the allegation of illegal construction activities and encroachment of Mahanadi river at Ratilo Mouza, Krishannagar Tehasil, Salepur Block, on-going construction of concrete structures such as Panchamukhi Hanuman Temple and Threshing Ground and proposed structures such as toilet, graveyard, market complex, Kalyani mandap and other activities that allegedly adversely affect the river ecology and disturb the river flow.

2. A joint inspection report was filed by the Committee after visit to the site on 24.07.2020 with following observations and recommendations:-

“Overall observation

- 1) *The temple constructed by the Panchamukhi Hanuman Temple Trust is situated within the Embankments of River Mahanadi (Annexure D). It is within nearly 35 meter from the embankment from the left Bank of River Mahanadi. It has no approval from Administration to construct the Temple at that site, as reported by the District Administration.*
- 2) *The Temple constructed is situated in ‘Active Flood Plain Area’ ‘No Development Zone’ of River Mahanadi. Flood plain area is ‘prohibited activity’ zone. The Flood Plain areas are the important component of ‘River Ecosystem’. They play multiple roles such as helping absorption of excess water during flood, act as filter improving water quality, habitat for Wild life and also as hollow channel of water course. Encroachment in these areas may lead to diversion in the flow of water leading to flood in adjacent villages in near future. The incidences of flood in Kerala, Jammu & Kashmir and in Pune last year are due to indiscriminate encroachment of the Flood Plain Area.*
- 3) *Other structure such as Market Complex, Toilets, Grave yards are not yet constructed.*

Recommendation

*Considering the above observations and importance of Flood Plain Area, the Committee recommends that:
‘The construction of Temple in the Embankment of River Mahanadi by Panchamukhi Hanuman Temple Trust is illegal and may not be allowed by the Administration for construction.’”*

3. The matter was considered on 20.08.2020 as follows:

*“3. From the above, it is clear that the Committee has found violations of law in raising construction in the active flood plain area or no development zone of the river. However, there is no action taken report. If the State authorities have found violations, it is for them to take remedial measures to enforce the law. **During the hearing, it has also transpired that such encroachments may be taking place at other locations on the flood plains of the river, including near the Cuttack Medical College or near the Bali Yatra Ground.***

4. Let these aspects be looked into by the Committee and a further factual and action taken report furnished within three months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.”

4. Accordingly, a joint inspection report has been filed on 11.12.2020 as follows:

*“The documents relating to the work site are verified. It is seen that in connection with drawl of water by IOCL Refinery at Paradeep from the upstream of Mahanadi Barrage, a case was filed in Hon'ble High Court of Orissa vide WP(C) No.20283 of 2011 by Nationalist Lawyers Forum. Judgment was pronounced on 27.02.2012. 40MGD (73.20 Cusecs) of water was allowed for the refinery, however the Hon'ble Court ordered that 10 CL may provide the required funding for CSR activities like 1) Dismantling of old anicut at Mahanadi & Birupa, 2) Survey by IIT Madras, 3) Dredging & removal of shoal, 4) Water treatment plant for Cuttack City, 5) Development of Sishu Bhawan, 6) Development of traffic signals at Cuttack and 7) Providing 6 Nos of Hi-Tech ambulances. Copy of the judgment is enclosed as **Annexure-B**.*

*As per the orders of the Hon'ble High Court in the aforesaid W.P.(c) No.2028312011, Water Resources Department, Government of Odisha, have Undertaken the dredging work in the upstream of Mahanadi Barrage and Birupa Barrage to remove the shoals as per bathymetric survey conducted by the Department of Ocean Engineering, Indian Institute of Technology (IIT), Madras. **The sand dredged from the shoals are being deposited in the low lying areas near River Mahanadi and Birupa. Such dredging has helped smooth discharge of flood water in the Rivers.***

*As per the orders dated 20.08.2020 of the Hon'ble National Green Tribunal, the committee visited the areas **near SCB Medical College & Hospitals and Baliyatra ground. During the visit, it is found that some pockets of these areas are encroached by slum dwellers and also shop keepers since long. However, it is seen during the visit that no recent encroachment has taken place in the said areas.***

5. The applicant has filed a response to the report pointing out potential for damage to the ecology of the Mahanadi and Kathjodi rivers by proposed projects in the flood plan zones of the said rivers as follows:

*“I. That Odisha Chief Minister Naveen Patnaik on Thursday announced a package for the special development of Cuttack city including the expansion of ring road into six-lane and renovation of SCB Medical College and Hospital. Announcing the package during his visit to the city on the occasion of the Netaji Subhas Chandra Bose birth anniversary, the Chief Minister said that **the reclamation of land from river Mahanadi** has created a once in a lifetime opportunity to breath fresh life into the core of the ancient city, Cuttack.*

II. *That, the Hon'ble Chief Minister said that every inch of the 424 acres reclaimed land will be utilised to add ecological, recreational, sporting, cultural and technological value in the lives of the people of Cuttack. Naveen announced the projects after visiting the reclaimed land site near Mata Math. The Chief Minister announced that the development work of the SCB Medical College to make it a world-class institution will start in March. The details of the Speech of Odisha Chief Minister published in the New Indian Express on 23/01/2020. Web copy of the news article in New Indian Express dated 23rd Jan 2020 is annexed here unto as Annexure-2.*

III. *That 25 Acres of land reclaimed from the river Mahanadi will be used for construction of New Campus of SCB Medical College Library and Playground. The proposal includes setting up of musical fountain, light system, garden, footpath, coffee bar, lavatory, ticket counter and arrangement of special galleries. The report further suggests that the development will be in a phased manner in accordance with the blueprint made by the district authorities of the Government. The project spreads from Cantonment Police Station to Jobra Maritime Museum. A copy of the new report published in Orissa Post on dated 22nd and 23rd January 2020 is annexed here unto as Annexure-3.*

IV. *It is further submitted that the official twitter handles of District Administration, Cuttack suggests that the district administration has initiated the beautification of the Mahanadi Riverfront in the name and style of Balijatra Riverfront Improvement Project or in short 'BARFI' Project where in the sand dredged from the River Mahanadi is being filled in River area close to embankment/Ring Road and the height of the Riverbed is being elevated so as to use those patch of land for developmental and recreational purposes. The height of the riverbed is already elevated by more than 6feet by dumping the sand excavated from the River. By this means the very nature, purpose and land use of the River is being changed. Copy of the twitter Images of the District Administration Cuttack dated 5th January and 10th June 2020 is annexed here unto as Annexure-4.*

V. *That photograph of the site taken on 18th August 2020 shows the dredging of River Mahanadi and the sand is being pumped through pipes into the Riverbank side. The ground height of the riverbed has been raised by more than 6 feet since the height noticed in December 2019 where the Bali Jatra was held. Photographs dated 18th August 2020 is annexed here unto as Annexure-5.*

VI. *It is needless to mention that the encroachment into the river Kathajodi and Mahanadi has been a continuous process and over the period more of the River and Flood Plane area is being converted into Parking Area, Parks, Temples and many other infrastructure projects like OTDC*

River Cruise Project by dumping debris and solid waste and thereby elevating the River bed from its original level. Even the Bali Yatra which is held over 37 acres, of which 23 acres are on the Mahanadi river bed and 14 acres are on Kila Maidan near the Barabati fort.”

6. We have heard learned counsel for the parties and considered the apprehensions of the applicant by way of objections to the report of the Committee.

7. **The response filed by the applicant shows that new campus of SCB medical college is proposed on 25 acres of land reclaimed from the river. The Mahanadi River Front project involves change of nature of the river land. Encroachment of Kathajodi and Mahanadi rivers and constructions in floodplain area may adversely affect the riverine ecology.** Precautionary measures are required.

8. There does not appear to be any central legislation to regulate the flood plains, except a notification dated 07.10.2016 issued by the Ministry of Water Resources, River Development, and Ganga Rejuvenation, with respect to Ganga river, under the Environment (Protection) Act, 1986, prohibiting any construction in the active floodplain area of river Ganga or its tributaries. The Union Water Resources Ministry circulated a model Bill on the subject in 1975 but the same did not fructify into law. There are some State Acts like Manipur Flood Zoning Act, 1978 and the Uttarakhand Flood Plain Zoning Act, 2012. In the State of Maharashtra, there are norms for demarcating regulatory and prohibitory zones in the floodplains of the rivers.¹

Various States have taken their own legislative/administrative measures

¹ Guidelines issued by the Irrigation Department of Maharashtra on 21.09.1989 as amended in the year 2018 and order of this Tribunal dated 11.07.2013 in OA 2/2013, Sarang Yadwadkar v. Commissioner, Pune Municipal Corporation, reported in 2013(1) All India NGT (Delhi) 299.

to regulate and prohibit activities in the floodplains. There are guidelines by some other States also.² There are also norms for no development zone, restricted zone in the floodplains of the rivers in Gujarat as referred to in order of this Tribunal dated 21.09.2020 in OA 50/2018(WZ), *Nav Yuva Sanghatan & Ors. vs. The Secretary, Narmada, Water Resources, Water Supply & Kalpsar Department & Ors.*

9. The Wetlands (Conservation and Management) Rules, 2017 prohibit any permanent constructions within 50 meters of the Wetlands, from the mean high flood level in the past 10 years from the commencement of the rules. There are also similar restrictions in certain Master Plans like the Revised Master Plan of Bangalore referred to in *Mantri Techzone Pvt. Ltd. vs. Forward Foundation & Ors.* (2019) SCC Online SC 322.restricting constructions in catchment area of the lakes. We are also not aware of the legislative and administrative measures in the State of Odisha on the subject of regulating and prohibiting activities in the floodplain zones of the rivers in the State, but such an exercise appears to be necessary to give effect to the precautionary principle of environmental law, required to be enforced by this Tribunal under section 20 of the NGT Act, 2010.

10. While considering the issue of rejuvenation of identified polluted river stretches, (including Mahanadi, which is one of such polluted river stretches) the Tribunal directed that each State must constitute a River Rejuvenation Committee (RRC) to prepare appropriate action plan and

² i. Also see order of the Allahabad High Court as reported in news article published on 04.01.2019 in The Times of India under the heading “No construction within 500 metre of high flood level: HC” authored by Shri Rajesh Kumar Pandey (https://m.timesofindia.com/city/allahabad/no-construction-within-500-metre-of-high-flood-level-hc/amp_articleshow/67379839.cms)
ii. News article published on 29.09.2016 in The Hindu under the heading “Building along the coast” authored by Shri G. Shyam Sundar (<https://www.thehindu.com/life-and-style/homes-and-gardens/Building-along-the-coast/article14644372.ece>).

execute the same. The action plan needs to include a plan for protection of floodplains.³

11. There are also articles in the media dealing with the subject. We may only refer to some as follows:

- i. Article titled “why floodplains need to be protected” dated 12.10.2018⁴ stating as follows:

“Damage to floodplains harms the riverine ecosystem, lessens groundwater recharge capacity and poses threats of flash floods. Enforcement of floodplain zoning regulation is a must to avert floods.

The Kerala flood of 2018...

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The lack of regulation and enforcement of land use in the floodplains added to the severity of the damage.

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Floodplains provide the space for rivers to spread their waters. When this space is missing due to encroachments, the river surges up and creates destruction.

“The lack of protection of river floodplains from damaging impacts like encroachment and diversion for ‘developmental projects’ is a tragedy that affects both the river as well as those who encroach it adversely. The river suffers as it is unable to occupy and transport flood waters downstream during high rainfall events (monsoon in particular). It is unable to recharge aquifers, wet the lands along its banks or provide life-sustaining conditions to plant and animal habitats along the river margins and banks.

Damage to floodplains harms the riverine ecosystem, lessens groundwater recharge capacity and poses threats of flash floods. “People too suffer an immense loss of life and property, including loss of public infrastructure like bridges, roads, schools etc., during high floods,”.

³ See order dated 21.09.2020 in OA No. 673/2018, In Re: News item published in “The Hindu” authored by Shir Jacob Koshy, titled “More river stretches are now critically polluted: CPCB”.

⁴ Author: Amita Bhaduri : <https://www.indiawaterportal.org/articles/sad-state-floodplains#:~:text=Damage%20to%20floodplains%20harms%20the,poses%20threats%20of%20flash%20floods.&text=The%20lack%20of%20regulation%20and,the%20severity%20of%20the%20damage.>

- ii. Article from Wikipedia under the heading “Floodplain”⁵, it is stated:

“xxx xxx xxx
Floodplains can support particularly rich ecosystems, both in quantity and diversity.

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A floodplain can contain 100 or even 1,000 times as many species as a river. Wetting of the floodplain soil releases an immediate surge of nutrients: those left over from the last flood, and those that result from the rapid decomposition of organic matter that has accumulated since then. Microscopic organisms thrive and larger species enter a rapid breeding cycle. Opportunistic feeders (particularly birds) move in to take advantage. The production of nutrients peaks and falls away quickly; however, the surge of new growth endures for some time. This makes floodplains particularly valuable for agriculture.”

12. The Hon’ble Supreme Court, vide judgment dated 30.07.2009 in *D.D.A. vs. Rajendra Singh*, 2009 (8) SCC 582, referred to the definition of floodplain in the dictionary as follows:

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24. **Though there is no statutory definition for "riverbed" and "floodplain" from the statute, the dictionary meaning of the same is as under:**

"Riverbed" has been defined as the area over which the river flows. In the Thames Conservators Case [1897] 2 QB 335 at 337 it was held that the word riverbed denotes that portion of the river which in the ordinary or regular course of nature is covered by the waters of the river.

The "bed of the river" was defined as the area covered by the river and is the space sub-adjacent to the river over which it flows between the banks. It is the space between the banks occupied by the river at its fullest flow.

The Black's Law Dictionary, 6th Edition (Pg 154) describes a river bed as the hollow channel of a water course; the depression between the banks worn by the regular and usual flow of water; The land which is covered by the water in its ordinary low stage; The area extending between the opposing banks measured from the foot of the bank from the top of the water at its

⁵ <https://en.wikipedia.org/wiki/Floodplain>

ordinary stage. P. Ramanatha Aiyer's Advanced Law Lexicon, Volume 4, 2005 Edition (Pg. 4157-4158) has described the bed of a river as the space contained between the banks; river bank in turn has been defined in the same law lexicon as the boundaries of a river throughout its width when the water flows to its maximum quantity.

"Floodplain" - Land adjacent to rivers, which, because of its level topography, floods when river overflows. [Black's Law dictionary, 6th Edn., p.641].

It is also been defined as 'a low, flat area in either side of a river that can accommodate large amounts of water during a flood, lessening flood damage further downstream' [Fredd Michaels, 'Dictionary of Environment Studies']

13. The Tribunal while considering restoration measures for Yamuna and Ganga rivers dealt with the issue of floodplains. Vide judgement dated 13.01.2015 in OA No. 6/2012 and OA No. 300/2013, *Manoj Misra vs. Union of India & Ors.* reported in 2015 ALL (I) NGT REPORTER (1) (DELHI) 139 in the context of river Yamuna, it was observed:

*"81. Floodplain zoning has been accepted as an important nonstructural strategy for flood management. The basic concept of floodplain zoning is to regulate land use of floodplains to restrict damage caused due to floods. The floodplain zoning, therefore, aims at determination of locations so that flood damages are reduced to minimum. A very restrictive activity can be allowed in that area. **It is not only to protect the areas from damage resulting from floods and failure of water protective measures, but is also useful in reducing the damage caused due to drainage congestion, particularly in urban areas.** The Commission claims to have prepared a model bill relating to floodplain zoning. This model bill provides for different categories based of priorities in floodplain.*

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83. The floodplain must be demarcated, kept free from any permanent developments and wherever it is possible, it should be restored to its original position.

84. Keeping in view the fact that various developments have taken on the floodplain of river Yamuna and to a larger extent they have adversely affected the river flow, its ecology and bio-diversity, we would direct that floodplain zoning should be taken with reference to the flood of once in 25 years, as against other suggested figure of more years. It is

important to demarcate the floodplain on this basis immediately, to protect it from any encroachments or development activities, which has already discussed and requested by the High Powered Committee, would adversely affect the ecology and environment.

85. Thus, it is necessary to call upon the authorities to demarcate the floodplain for the flood of once in 25 years and to prohibit any kind of development activity in the area in question. Furthermore, the Committee should consider restoration of the area and wherever necessary, even demolish the properties, which are likely to be dangerously exposed to the flood and are even affecting the ecology and bio-diversity and flow of the river.

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89. Subject to any law coming into force, we have already stated that flood of once in 25 years would be considered for defining and demarcating the flood plain. No development/construction activity, except that is stated herein, would be permitted in the Flood Plain of River Yamuna. No authority or person before us has even taken up the plea that why development/construction activity cannot be carried on in other parts of NCR, Delhi. As of now, sufficient land is available, may it is expensive, but that cannot be a ground for destroying the ecology, environment and biodiversity of River Yamuna of Delhi. The result of indiscriminate, unregulated and uncontrolled development activity are widely visible and felt by each and every one in Delhi. It would not only be unwise, but may prove fatal, if such approach is continued any further.”

14. Vide judgement dated 13.07.2017 in OA No. 200/2014, *M.C. Mehta vs. Union of India & Ors.* reported in 2017 NGTR (3) PB 1 in the context of river Ganga, it was observed:

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142. Being an integral part of the river, floodplain of the river requires protection. Floodplains play significant role in maintaining the bio-diversity and aquatic life of the river. It's significance cannot be overlooked, in terms of environment and ecology. There are numerous dimensions involved while identifying the floodplains. It is required to categorize it into different zones, namely, No Development Zone, Regulated Zone and a Free Zone for development. The principle of Sustainable Development itself justifies the classification of floodplains into such zones for protecting the river. This Tribunal in the case of *Manoj Misra (supra)* had the occasion to deal with the concept of floodplain, its zoning and management.”

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During the course of proceedings before the Tribunal, the stakeholders also deliberated in favour of demarcation of floodplain of river Ganga, for ensuring protection and maintenance of the health of the river. **The above stated precedent of the Tribunal also has its definite reference in the Notification dated 7th October, 2016 issued by the MoWR. In sub-clause (ix) of clause 4(v) of the Notification which relates to Principles to be followed for rejuvenation, protection and management of river Ganga, states that the bank of river Ganga and its floodplains shall be a construction free zone to reduce sources of pollution, pressure on floodplains and to maintain its natural groundwater recharging properties.** This clearly demonstrates that fixation of the floodplain and its demarcation is one of the principal projects for cleaning and rejuvenation of river Ganga, amongst all the stakeholders. As already stated, the project at priority is to clean river Ganga and not to diversify financial resources to the subsidiary function of cleaning innumerable drains in the city. There are innumerable factors consequential to pollution of floodplains of the river. Indiscriminate and unplanned constructions or developments, carrying on of unauthorized and impermissible activities, dumping of municipal solid waste, bio-medical waste and E-waste in and around the floodplains, are some of the main contributors of pollution in river Ganga.

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182. ... The constitutional duty upon the citizens is to protect and improve the nature, environment including forests, rivers, wildlife and to have compassion for living creatures. No industry much less the State or its instrumentality can be permitted to indulge in pollution of natural resources particularly the river for economic benefits. **It is a settled principle of law that the Polluter Pays Principle and Precautionary Principle have to be read into the Principle of Sustainable Development.** Normally, they are applied collectively. Restrictions imposed are inbuilt fact of sustainable developments and that itself serves the cause of Intergenerational Equity. **To protect and improve the environment has a direct nexus to the quality of human life, thus, all environmental principles must come to the aid of the Courts and Tribunals for furthering the cause of Sustainable Development. In the case of 'Vellore Citizens Welfare Forum vs. Union of India' 1996 5 SCC 647 held with approval:**

“The concept of development to say that the traditional concept that development and ecology are opposed to each other is no longer acceptable. Sustainable Development is the answer i.e., development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. It is intended to improve the quality of human life, while living within the carrying capacity of the supporting ecosystems. The 'Precautionary' Principle and 'Polluter Pays' Principles were, therefore, said to be the essential features of the Principle of Sustainable Development.”

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7. Till the demarcation of the floodplains and identification of permissible and non-permissible activities by the State Government of this judgement, we direct that 100 meters from the edge of the river would be treated as no development/construction zone in Segment-B of Phase-I (Haridwar to Unnao, Kanpur)."

15. In view of averments made by the applicant that the river beds is proposed to be affected by setting up of the Medical College or other permanent constructions in the floodplain of the river, there is need to prevent irreversible damage to the riverine ecology by enforcing the applicable rules, if any. If there are no rules, appropriate norms need to be laid down considering such norms in other similar situations in consultation with the experts.

16. Accordingly, we constitute a joint Committee comprising representatives of Central Water Commission (CWC), nominees of MoEF&CC, CPCB, National Institute of Hydrology, Roorkee and the State PCB to consider the issue and laid down norms so as to ensure that the proposal of the State for construction of the medical college and river front development takes place in accordance with law, without damage to the flood plains of the Rivers. Flood plain zones need to be identified and demarcated in the light of such norms. The Committee may identify the extent of floodplain zone/active floodplain zone from the edge of the river. CPCB will be nodal agency for compliance. The Committee is free to associate any other individual or institution. The Committee may complete its exercise within four months. The members of the Committee are free to interact by video conferencing or otherwise. If any grievance with regard to violation of environmental norms survives, the applicant will be free to take any further remedies as per law.

The application is disposed of.

A copy of this order be forwarded to the CWC, MoEF&CC, CPCB, National Institute of Hydrology, Roorkee and the State PCB by e-mail for compliance.

Adarsh Kumar Goel, CP

Sheo Kumar Singh, JM

Dr. S.S. Garbyal, EM

Dr. Nagin Nanda, EM

December 15, 2020
Original Application No. 22/2020(EZ)
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