

Item No. 04

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

Original Application No. 13/2018/EZ

Sudhan Das

Applicant(s)

Versus

State of Assam & Ors.

Respondent(s)

Date of hearing: 16.08.2021

**CORAM: HON'BLE MR. JUSTICE B. AMIT STHALEKAR, JUDICIAL MEMBER
HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER**

For Applicant(s) : Ms. Paushali Banerjee, Advocate

For Respondent(s) : Mr. Gora Chand Roy Choudhury, Advocate.
For Respondent No.11
Mr. Surendra Kumar, Advocate
For Respondent No.12

ORDER

1. Heard Ms. Paushali Banerjee, Ld. Counsel for the Applicant.
2. Mr. Gora Chand Roy Choudhury, Ld. Counsel is present for Respondent No.11, Ministry of Environment, Forest and Climate Change (MoEF & CC) and Mr. Surendra Kumar, Ld. Counsel is present for Respondent No.12, CPCB.
3. Notices were issued in this case on 24.04.2018 but till date no counter affidavit has been filed by the Respondent Nos. 6, 7, 9 & 10.
4. An affidavit-in-opposition has been filed by the Respondent Nos. 5 & 8. The same is taken on record. The Respondent No. 11, MoEF & CC has filed an affidavit brining on record of the report of the Committee constituted by this Tribunal to examine the allegations made in this O.A.
5. The same is also taken on record.
6. The Committee carried out inspection on 28.07.2021 and submitted its report. The report reads as under:-

1. Background

Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata has in its order dated 29.06.2021 in OA No. 13/2018/EZ titled as "Sulham Das vs. State of Assam &Ors." constituted a committee to examine and investigate the discharge of sewerage and other wastes released by the boats and houseboats allowed to ply in the River Brahmaputra, River Dibru and River Dangori in the Tinsukia District. The Tribunal constituted a committee comprising of Senior Scientist from Integrated Regional Office of MoEF&CC, Guwahati; Senior Scientist from the Central Pollution Control Board, Regional Office Shillong; Senior Scientist from Assam State Pollution Control Board, Guwahati; and the Deputy Commissioner, Tinsukia.

Accordingly, a committee was constituted with following members:

- i. Dr. Hemen Hazarika, Scientist 'D' Integrated Regional Office Guwahati, MoEF&CC
- ii. Shri Ritesh Prasad Guring, Scientist 'D' (Senior Scientist), CPCB, Shillong
- iii. Shri Pralay Das, Executive Environmental Scientist, PCB Assam
- iv. Shri Dipu Kr. Deka, The additional Deputy Commissioner, Tinsukia authorized by Deputy Commissioner, Tinsukia.

The Integrated Regional Office of MoEF&CC, Guwahati is designated as the nodal office while the Deputy Commissioner, Tinsukia is directed to co-ordinate for all logistic purposes.

The committee has been vested with the mandate to visit and inspect the site in question and examine the following aspects vide the Order dated 29.06.2021:

- i. No. of boats and houseboats plying on the three rivers including the private respondents herein discharging untreated sewerage/other wastes.
- ii. System for disposal of sewerage and other wastes adopted.
- iii. Carry out water analysis test randomly at different places to test for Total Coli form and Faecal Coliform besides other parameters like PH, BOD, COD etc.
- iv. Assess the damage caused due to pollution and impose environmental compensation accordingly, if found in violation of environmental norms.
- v. Suggest remedial measures to be taken to mitigate the above issues of pollution.


2. Field Visit:

The committee members inspected the discharge of sewerage and other waste into the River Dibru, River Brahmaputra and the River Dangori in Tinsukia district in Assam on 28.07.21. The findings, observations of the committee members are as under:

1. There are only two ghats viz. Guujan Ghat and Saikhowa Ghat. Boats plying in the three concerned rivers are docked in these two ghats only; coverage of the rivers is done from these two ghats. While both the ghats were visited, activities were observed in Guujan Ghat only. Activities in Saikhowa Ghat is very limited and is restricted to about 3 boats mainly



Attested


SHAH SYED SAMADUR RAHMAN
NOTARY
Guwahati, Kamrup
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ADDL. Deputy Commissioner
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for transportation of goods from one bank to another. Furthermore, docking facility of larger boats is available in Guujan Ghat only, and the activities at Saikhowa Ghat has reduced considerably after the inauguration of the Dihola-Sadia Bridge otherwise known as Dr. Bhupen Hazarika Setu in the year 2017.

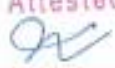
2. The season of tourists visiting the Guujan Ghat is from November to March. As this is not the season for tourists and because of the COVID19 pandemic the actual operation of boats was not possible. Hence, the observations are based primarily on present situation and information as conveyed to the Committee during interactions.
3. About 100 families are residing on the banks of River Dibru adjacent to the Guujan Ghat. As informed by Sh. Sanjoy Das, Member, Zila Parishad Guujan, Tinsukia, only about 10% houses in this settle have septic tank; some houses have dug pits for discharge of sewage.
4. As per the list provided by the Inland Water Transport, Assam, there are a total of 150 register boats registered with them for the three rivers. These include boats of all types such as bouthouses, passenger boats, ferryboats, etc. (Annexure-IV).
5. It was observed that there are unregistered boats as well in the area. This also include boats operated by the government department.
6. The boats are used mainly for three major activities viz. a) Policing and patrolling, b) Tourism activities, and c) Commercial activities.
7. Policing and patrolling is being done by government agencies and is done to patrol bridges and to check illegal activities in and around Dibru Saikhowa National Park.
8. The major commercial activities include the following:
 - a. for transportation of good like wood, milk, stone, firewood collecting from river,
 - b. for transportation of construction materials
 - c. for ferrying of passengers between banks
9. Tourism related activities include accommodation in houseboats, sightseeing to Dibru Saikhowa National Park / biospheres, bird watching, dolphin viewing, etc.
10. There has been no major tourist activities since March-April 2020 till date because of COVID-19 pandemic.

2.1. Sources of Liquid Wastes:

The team identified two sources of liquid wastes discharging into the Dibru River. The settlement along the Guujan Ghat is one of the sources of liquid waste being discharged into the River Dibru. As stated earlier, only about 10% of the residents along the Guujan Ghat have septic tanks. While some of the residents there have dug pits for their toilet wastes, the Committee is of the opinion that open defecation cannot be ruled out in the area. However, because the area caters to tourists, no physical evidence was observed during the visit. It is also to be mentioned that pits dug for handling wastes from toilets are unlined. As such, this can lead to contamination of ground water, and also the River Dibru, through subsurface flow.

The second source of liquid wastes are the boats handling passengers for an extended time of few hours. These boats include passenger boats for ferrying passengers between banks, tourist boats



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used to visit to nearby tourist spots, and houseboats used to accommodating tourists, usually for overnight stay. While the passenger boats and the tourist boats generated mainly liquid wastes from toilets, the houseboats also generate liquid waste from bathrooms during bathing.

It was observed that none of the passenger boats have any facility for disposal of liquid wastes. All the liquid waste generated in these boats are discharged into the river directly, without any form of treatment. It was also seen that most tourist boats also do not have any facility for the treatment of the liquid wastes. However, two tourist boats - M/s SB Shanti and M/s The Traveler's Hut have been provided with the DRDO developed Bio-toilets.

The Committee visited a total of six houseboats- all four of these boats have been listed as respondents here. It was seen that one of the houseboats viz. M/s Royal Princess has not registered with the Inland Water Transport, Government of Assam as per information furnished by Inland Water Transport Assam. (Letter No. DWT-(ISV)/113/2014/pi-IV/208 dated 22th July 21, copy attached as **annexure-IV**). This boat had the constructed a tank for temporary storage of liquid wastes from its toilets and bathrooms, which was later collected and disposed by the Tinsukia Municipal Council.

One of the houseboats M/s. Nakshatra had sunk in June 2020, (Published Newspaper copy attached as **annexure V**).

The houseboat, M/s Dibru Saikhowa Boat Safari, was found to be under repair and has been kept on the bank since June- July 2019 and is still there even at present. The houseboat M/s MB Ornn has installed the DRDO approved Bio-toilet for treatment of liquid waste both from its toilet as well as from bathrooms.

Detailed observation as seen in these boats is provided in **Annexure - I**.

Water sampling was done at four locations along the Guujan Ghat to understand the water quality of the River Dibru at present. The location of the sampling has been decided as under:

Stations	Location	Rationale
1	500m Upstream from Guujan Ghat, at mid-stream of Dibru River.	To understand the baseline pollution level
2	Mid-stream Dibru River at Guujan Ghat.	To understand the water pollution by boat, if any
3	500m downstream from Guujan Ghat, at mid-stream of Dibru River.	To verify any change in water quality because of any liquid discharge
4	Dibru River at Guujan Ghat, along the bank.	To check for pollution due to residential settlement.

The results of the analysis are provided in **annexure II**, as seen from the analysis report the water quality upstream of the Guujan Ghat (Station 1) conforms to Class A for all parameters except for total coliform; the total coliform concentration falls in the category of Class B. Therefore, the water quality of River Dibru upstream of Guujan Ghat is classified as Class B. It is also to be mentioned



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here that no faecal coliform was detected in this location. In the subsequent stations i.e. Stations 2, 3 and 4, an increase in the concentration of total coliform is noticed. Furthermore, the faecal coliform was also detected in these stations clearly indicating a discharge of faecal material. Although the primary cause this increment cannot be ascertained at this stage, direct discharge from tourists and house boats was documented and thus cannot be discarded.

It is to be mentioned that there is high flow in River Dibrui at present, owing to monsoonal rain. Because of this the ratio of dilution water available to liquid waste generation is extremely high. This is also evident from the analysis result (attached as annexure II). As such water quality assessment conducted during the visit may not represent pollution caused because of passenger, tourists or houseboats. More realistic data to represent water pollution caused by boats can be obtained by analyzing water quality during peak tourist season of November to March. This season also coincides with lean flow in the rivers, which will further make the analysis results more representative.

2.2. Sources of Solid Wastes:

Solid waste are mainly generated by passenger boats, tourist boats and houseboats. Most of the solid waste generated in the passenger boats and tourist boats are the plastic packaging of food items such as packets of chips, chocolate wrappers. It was reported by the workers in the passenger boats that the boatman collects all these wastes and bring them to the bank, where disposal is done through open burning.

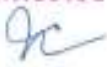
In houseboats, the solid was generated include plastic packaging material of food as well as leftover food. The food provided to the passengers are cooked at the banks and then served on the boats. In the houseboat, M/s MB Omm, the leftover food is disposed through piggery. Plastic bottles collected are sold off to local recyclers and other plastic solid wastes are disposed through community bins. In the houseboat M/s Royal Princess, food is served in disposable crockery and cutlery. The leftover food, plastic wastes, disposal items and plastic bottles are all brought to the bank and disposed through open burning.

2.3. Assessment of Environmental Damage:

The damage on the environment is mostly on two components viz. air and water. The Committee did not observe any long-term damage to the environment. However, there are no tourists and the ferrying from one bank to another is also very limited at present because of COVID19 Pandemic. Because of this, the present scenario cannot be considered as business-as-usual. Furthermore, it is also expected that recovery of environmental damage has happened in the last 18 months because of limited or no activities.

Because of limited activities there is no large scale direct discharge of either toilet or bathroom liquid waste into the river directly from the boats. Also, as no solid waste is being generated and no open burning was observed. As such, direct assessment of environment damage is not possible.



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2.4. Registration, Authorization and Other Certification:

As per the report submitted by the Inland Water Transport there are a total of 150 registered boats. However, the Committee did observe that a number of boats are also plying without registration. It is to be mentioned that some of these unregistered boats belong the Government Agencies, such as Police and Forests Departments.

Some of the boats, especially the houseboats and tourist boats have acquired most of the requisite certifications. M/s MB Om (houseboat), M/s Traveler's Hut (tourist boat) and M/s Shanti (tourist boat) have acquired various registration/certifications such as GST, FSSAI, trade license, IWTD, tourism, etc. The said documents are provided in **Annexure III**. However, some boats like M/s Royal Princess (houseboat) do not have any form of documentation including registration with IWTD.

The Committee, however, remarked that there is no awareness regarding Consent to Establish / Operated to be acquired from the State Pollution Control Board, i.e. Pollution Control Board, Assam, in this case.


2.5. Observation at Saikhowa Ghat:

The Committee also visited Saikhowa Ghat and observed three boat used for milk transportation and one house boat used by Assam police for security purpose of Dhola Sadiya Bridge. There is no sewerage treatment facility in this house boat. It was comes to know from information provided by neighbor that this Ghat houseboat and passenger both transportation activity has shut down after commissioning of the Dhola Sadiya Bridge. Considering the limited to no discharge of liquid wastes to the river at this location, no water sampling was carried out at this Ghat.

3. Recommendations:

1. All boats having toilet should be equipped with sewerage treatment facility like, Bio-toilet/ Fecal Sludge Treatment plant (FSTP), or any other suitable treatment facility, based on capacity. However, based on the success of Bio-toilet in the Indian Railways as well as the efficiency as seen in boats in Guujan Ghat, it may be said that Bio-toilet is the best option.
2. Community toilet is required to be setup for villagers inhabiting nearby the bank of Dihru River (Guujan Ghat). Local administration should provide sanitary latrines to all the households through Individual Households Latrines (IHHL) Scheme under Swachh Bharat Mission.
3. All boat owners should obtain requisite authorizations, permits, approvals, certificates, consents, licenses, etc. from the relevant authorities.
4. Solar power facility may be installed for heating and lighting purposes of all house boat. This will yield better efficiency in terms of energy utilization as well as provide them with a green alternative.



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5. All DG sets used in the boats or in their auxiliary activities shall be as per the prescribed norms of CPCB. Furthermore, consents, as applicable, shall be obtained from the Prescribed Authority, i.e. Pollution Control Board Assam.
6. Considering the proximity to a biosphere reserve, the issue of noise pollution also comes into factor. The Committee recommends that all provisions of the Noise Pollution (Regulation and Control) Rules, 2000 be made applicable. Furthermore, the limits as applicable to the silent zone have to be complied with at all times, especially with respect to engine noise, and with respect to PA systems during celebrations on board.
7. Proper signage to be installed in every boat mentioning details such as registration number, owners name and contact details.
8. Different colored dustbins shall be placed inside the houseboat / plyboat to segregated dry and wet wastes at source.
9. Consent to Establish/Consent to Operate may be obtained from the Pollution Control Board Assam for operation of the houseboat / plyboat.
10. Inland Water Transport Department shall issue registration only when the application is annexed with relevant clearances, licenses, etc. The Consent to establish / Consent to Operate has to be a mandatory document for boats with a toilet facility.
11. Proper precautionary measures shall be taken at the time of refilling engine oil/ fuel. It shall be ensured that all used oil is handled as per the provisions of the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016.
12. Expert monitoring committee to be deploy for monitoring the sewerage treatment facility and other pollution level on the half yearly intervals.
13. Awareness programs to highlight the issues related with the direct discharge of solid / liquid waste into the river pollution and conservation of biodiversity, wildlife and endangered species.

4. Environmental Compensation

Sh. Nabin Das, Guujan Ghat, Tinsukia District, who is the proprietor of M/s Royal Princess failed to provide the Committee with any form of documentation. The said houseboat is also not listed in the list of registered boats as provided by the IWT, Government of Assam. Furthermore, no system of management of wastes, either solid or liquid, was seen in the boat. As such, the Committee recommends imposition of Environmental Compensation amounting to Rs. 2,25,000.00 (Rupees two lakhs twenty-five thousand) only as per the following calculations:


$$\text{Environmental Compensation} = \text{PI} \times \text{N} \times \text{R} \times \text{S} \times \text{LF}$$

Where,

Abbreviating	Description	Value	Remarks
PI	Pollution index of industrial sector	30	Value for green category industry



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N	Number of days of violation took place	40	From the date of issue of direction to Her/ble NGT to the date of submission of report
R	A factor in Rupees, for environmental compensation	Rs. 250	Approved daily compensation by the Committee
S	Factor of scale of operation	0.5	Value for small industry
LF	Location factor	1.5	Value for sensitive zone

Environmental Compensation for other boats has not be imposed based on the following points:


Respondent	Rationale
Respondent No. 5, M/s M B Oom	Availability of documents and bio-socket
Respondent No. 6, M/s S B Shami	Availability of documents and bio-socket
Respondent No. 7, M/s Dibru Saikhowa Boat Safari	Currently under repair
Respondent No. 8, M/s The Traveler Boat	Availability of documents and bio-socket
Respondent No. 9, M/s Nakahata	Sunken boat

However, all boats with toilet and washbasin shall install Bio-toilets and procure necessary documents including consents from Pollution Control Board, Assam within a period of 3 months failing which Environmental Compensation shall be imposed on them as well.

 Dr. Homen Hazarika, Scientist D, Integrated Regional Office, Guwahati, MoEF&CC	 R.P. Gurung Scientist D Central Pollution Control Board, Shillong	 Dr. B. S. Das, Env. Scientist Central Laboratory, Pollution Control Board, Guwahati, Assam	 Shri Dipu Kr. Das, The Additional Deputy Commissioner, Tinsukia
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7. The chart which has been prepared by the Committee is also reproduced herein as Annexure-1 giving details of status of Respondent Nos. 5, 6, 7, 8, 9 & 10 which are as under:-

- 11 -

Enclosers:

- Annexure I:** Detailed observation as seen in all boats
Annexure II: The results of water analysis from SPCB Assam
Annexure III-IIIvt: Various registration /certifications such as GST, FSSAI, trade license, IWTID, tourism, etc.
Annexure IV: Copy of registered boats in Inland Water Transport, Assam
Annexure V: Published Newspaper copy attached
Annexure VI: Some photographs of site visit

Annexure I: Details status of Responded no. 5, 6,7,8,9 and 10 as per OA 13/2018/EZ

Respondent	Infrastructure	Documents	Observations
Respondent No. 5. M/s M B Omm	<ul style="list-style-type: none"> 16 Rooms for 32 passengers Dining hall cum lounge 16 toilets cum bathrooms 2 wash basins 	<ul style="list-style-type: none"> IWT Tourism Dept. FSSAI GST Gaon Panchayat 	<ul style="list-style-type: none"> Bio-toilet for liquid wastes Water from borewell Organic solid waste utilized in piggery Plastic bottles are sold to local kabaddi wala Remaining solid waste are disposed through community bin No passenger since March 2020 (as stated by boat owner)
Respondent No. 6. M/s S B Shani	<ul style="list-style-type: none"> 1 Bio toilet cum bathroom 2 Washbasins 	<ul style="list-style-type: none"> IWT Tourism Dept. FSSAI GST 	<ul style="list-style-type: none"> Bio-toilet for liquid wastes Water from borewell Organic solid waste utilized in piggery Plastic bottles are sold to local kabaddi wala Remaining solid waste are disposed through community bin. No passenger since March 2020 (as stated by boat owner)
Respondent No.7. M/s Dibra	<ul style="list-style-type: none"> Boat is not found in 	<ul style="list-style-type: none"> IWT 	<ul style="list-style-type: none"> Boat is not found in working condition



Attested

(Signature)

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(Signature)
 Addl. Deputy Commissioner
 TIRUKLIA

Sukhoren Boat Safari	<ul style="list-style-type: none"> working condition is kept on the bank since June-July 2019, (as stated by local people) 		<ul style="list-style-type: none"> is kept on the bank, (as can be seen from photo no.3.)
Respondent No. 8, M/s The Traveler Hut	<ul style="list-style-type: none"> Bio-toilet-1 Wash basin-2 (only for tourist person) 	<ul style="list-style-type: none"> IWT Tours in Dept. FSSAI GST 	<ul style="list-style-type: none"> Bio-toilet for liquid wastes Water from borewell Organic solid waste utilized in piggery Plastic bottles are sold to local kabaddi-walas Remaining solid waste are disposed through community bin. No passenger since March 2020
Respondent No. 9, M/s Nakshara	<ul style="list-style-type: none"> Record not available M/s. Nakshara had sunk in June 2020. 	<ul style="list-style-type: none"> IWT 	<ul style="list-style-type: none"> Boat was not found onsite The boat sunk on June 2020 (Published Newspaper copy attached as annexure V).
Respondent No.10, M/s Royal Princes	<ul style="list-style-type: none"> 5 Rooms for 10 passenger Dining hall cum lounge 5 toilet cum bathrooms Kitchen for staffs 	Not available	<ul style="list-style-type: none"> No registration or any other form of documentation No Bio-toilet Liquid wastes are discharged to the river directly Water supplied from Dibru River after treatment in sand filter All solid wastes are collected and burnt together on banks No passenger since March 2020 (as stated by boat owner)

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- Prima facie we find that Respondent Nos. 5, 6 & 8 have provisions for bio toilet for liquid waste, water from bore well, organic solid waste utilized in piggery and plastic bottles are sold to local kabadi walas, remaining solid waste are disposed of through community bin, no passengers were plied since March, 2020.
- So far as Respondent No. 7 is concerned, the report mentions that the boat was not found in working condition and is kept on the bank of Dibru river. As regards Respondent No.9, it is mentioned in the report that the boat was not onsite and it was sunk in June, 2020.

10. So far as the Respondent No.10 is concerned, we find from the report of the Committee that there are gross environmental violations for which the Committee has recommended Rs. 2,25,000/- (Rupees Two Lakh Twenty Five Thousand only) as environmental compensation. We are informed that the said environmental compensation has not been recovered till date from Respondent No. 10. The Assam State Pollution Control Board, Respondent No.3 shall ensure that recovery of the said amount of Rs. 2,25,000/- (Rupees Two Lakh Twenty Five Thousand only) from the Respondent No.10 is made within a period of one month and submit compliance report on affidavit to this Tribunal by the next date. We also direct the Deputy Commissioner, Tinsukia to take steps to ensure that the Respondent No.10 shall not ply its boat M/s Royal Prince on the river Dibru until further orders of this Court.

11. So far as other recommendations made by the Committee are concerned, we find that no time line has been mentioned for implementation of the recommendations given by the Committee. We, therefore, direct the Respondent No.2, Deputy Commissioner, Tinsukia to file his personal affidavit giving the time line for implementation of the recommendations made by the Committee. Let this affidavit be filed before the next date of listing.

12. List on 28.09.2021.

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B. Amit Sthalekar, JM

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Saibal Dasgupta, EM

August 16, 2021
O.A. No. 13/2018/EZ
AKC