

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI**

O.A. NO. 487 of 2015

IN THE MATTER OF:-

Bharat Jhunjunwala & Ors.

....Applicant/Respondent

Versus

Inland Waterways Authority of India & Ors.

....Respondents

**ADDITIONAL AFFIDAVIT ON BEHALF OF RESPONDENT NO.2
MINISTRY OF ENVIRONMENT FOREST AND CLIMATE CHANGE.**

I Dr. Vinod K. Singh aged about 41 years presently working as Scientist
in the Ministry of Environment, Forest and Climate Change
("MoEF&CC", for short), do hereby solemnly affirm and state as under:

1. That I am duly authorized and well acquainted with the facts and
circumstances of the present case as such am competent to depose
this affidavit in my official capacity.

2. That the Answering Respondent has gone through the original
application. It is further stated that Answering Respondent had
filed an affidavit to the original application in the month of March,
2016 and the Answering Respondent craves leave of this Hon'ble
Tribunal to refer to and rely upon the same as if the same has been
specifically incorporated herein. The contents of the earlier filed
reply affidavit are not being repeated herein for the sake of brevity.

3. It is submitted that this Hon'ble Tribunal, vide its order dated
01.11.2018 directed this Ministry to look into the issue in
consultation with the Experts in the field, as to whether any

Vinod K. Singh

Environmental Clearance is required or not and whether Environmental Impact Assessment is to be done in projects relating to Inland Waterways.

4. It is submitted that the project of Inland Waterways is, as on date, not included in the EIA Notification, 2006. The same was also upheld by the Hon'ble Tribunal vide its order dated 01.11.2018.
5. It is submitted that an 'Expert Committee' re-constituted in the Ministry vide O.M. No. J-11013/12/2013-IA II(I) dated 21.04.2017 for examination and recommendation on various technical issues like review of projects/activities for its inclusion under the EIA Notification, 2006, including the applicability of the EIA Notification, 2006, for jetty construction and dredging in rivers and Inland Waterways Development projects etc. discussed the proposal of Inland Waterways in its meeting held on 18.05.2017. A copy of the minutes dated 18.05.2017 is annexed herewith as **Annexure-1**.
6. It is submitted that 'Expert Committee' deliberated on the matter mainly in terms of applicability of the EIA Notification, 2006 for the Inland Waterways projects and recommended to include Inland Waterways, Jetties and Multi-Modal Terminals under the list of items requiring prior environmental clearance.
7. It is submitted that a meeting was held between MoEF&CC and Ministry of Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation on 24.10.2017 to discuss the applicability of the EIA Notification, 2006 for the Inland Waterways projects. The meeting concluded that as per the extant legal position, no prior EC is required for



maintenance dredging for navigational channel for Inland Waterways. However, particularly from the stand point of the environmental impacts of Inland Waterways projects, an OM No. 14-9/2016-IA-III dated 21.12.2017 was issued by this Ministry to permit Inland Waterways projects, subject to the implementation of detailed environmental safeguards and fulfilment of certain conditions as enclosed as annexure to the OM. A copy of OM dated 21.12.2017 is annexed herewith as **Annexure - 2**.

8. In pursuance of the order dated 01.11.2018, 25.02.2019 and 08.03.2019 of the Hon'ble Tribunal, it is submitted that the applicability of the EIA Notification, 2006 for the Inland Waterways projects had already been examined by an 'Expert Committee' in its meeting held on 18.05.2017. The same was also discussed between this Ministry and Ministry of Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation on 24.10.2017 and thereafter a considered decision was taken by the Ministry and the same was communicated to the Ministry of Shipping vide O.M. dated 21.12.2017.

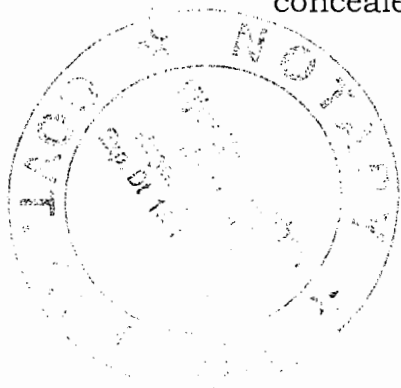
9. It is submitted that the present additional affidavit may kindly be taken on record and into consideration and the Hon'ble Tribunal may pass appropriate Order(s), direction(s) as deemed fit and proper under the facts and circumstances of the present case which the answering Respondent shall duly comply with.


DEPONENT

(डा. विनोद के. सिंह)
(Dr. VINOD K. SINGH)
वैज्ञानिक 'डी' / Scientist 'D'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

VERIFICATION

Verified at New Delhi this day of March, 2019 that the contents of the above affidavit are correct to my knowledge and belief based on official records and nothing material has been concealed therefrom.



(Signature)
DEPONENT
(डा. विनोद क. सिंह)
(Dr. VINOD K. SINGH)
वैज्ञानिक 'डी' / Scientist 'D'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

(Signature)
Notary Public, Delhi

13 MAR 2019

(Signature)
I declare that the deponent who has signed this T.I. in my presence
D/129/2019

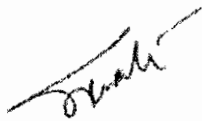
Minutes of Meeting of Expert Committee for streamlining environmental clearance procedures including examination and recommendation on various technical issues like review of projects/activities for its inclusion under EIA Notification, 2006, categorization of Category 'B' projects/activities into Category 'B1' & 'B2' under EIA Notification, 2006, review of classification of projects/activities into 'A' & 'B' and General Conditions as contained in the aforesaid Notification, held on 18.05.2017 in the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi.

A meeting of the above mentioned Expert Committee was held on 18.05.2017 to examine the applicability of EIA Notification, 2006 for:

- (i) construction projects/activities related to Jetties, Multi-Modal Terminals and dredging in the River Ganga for developing National Waterways-1 (NW-1) by the National Waterways Authority of India, Ministry of Shipping Government of India;
- (ii) Small Scale Units, categorisation into B1, B2 Categories and manufacturing of Linear Alkyl Benzene Sulphonic Acid (LABSA);
- (iii) waiver of Environment Clearance to Project Developers on setting up of biomass-based Second Generation (2G) Ethanol Biorefinery.

2. Following members/invitees were present in the meeting:

- Dr S.R. Wate, Chairman
- Dr G.V. Subrahmanyam, Member
- Shri K.P. Nyati, Member
- Shri K. Gowarappan, Member
- Ms Seema Arora, Member
- Dr S.K. Pallerala, Director, MoEF&CC, Special Invitee
- Dr Vinod Kumar Singh, Joint Director, MoEF&CC, Special Invitee
- Dr Ashish Kumar, Joint Director, MoEF&CC, Member Secretary
- Officials of Inland Waterways
- Representatives of SSI Units of Gujrat



2. At the outset Dr S.R. Wate, Chairman apprised the Expert Committee about the sad demise of Shri Anil Madhav Dave, Hon'ble Minister of State (Independent Charge), Ministry of Environment, Forest and Climate Change (MoEF&CC), New Delhi. The Expert Committee placed on record the deep sense of sorrow at the sad demise of Hon'ble Minister and paid homage to the departed soul by observing two minutes silence.
3. The Chairman confirmed the Minutes of the last Meeting held on 02.05.2017 in the MoEF&CC.
4. Although the main objective of the meeting was to examine the applicability of EIA Notification, 2006 for construction projects/activities related to jetties, Multi-Modal Terminals, dredging etc., the Chairman was requested to consider in agenda other issues related to applicability of EIA Notification, 2006 for (i) Common Municipal Waste Treatment Facilities, (ii) biomass-based Second Generation (2G) Ethanol Biorefinery, (iii) manufacturing of LABSA along with the categorisation of small scale units into B1 or B2 categories of projects for obtaining environmental clearance. The Chairman agreed to include these issues in the agenda and thereafter detailed deliberation took place on all the agenda items.
5. The summary of deliberations and key recommendations emerged during deliberation are as under:

A. Applicability of EIA Notification, 2006 for jetty construction in rivers and dredging in rivers and Inland Waterways development projects

6. The representatives of the Inland Waterways Authority of India (IWAI), Ministry of Shipping mentioned that they are in the process of implementation of the 'Jal Marg Vikas Project' for augmentation of navigational aids in the Haldia-Varanasi stretch of National Waterway-1 (NW-1). The project involves the development of navigation in 1390 Km length from Varanasi to Haldia running through the Ganges, Bhagirathi and Hoogly river system with having fixed terminals at Haldia, Farrakka and Patna and floating terminals at most of the riverside cities like Kolkata, Varanasi etc. The project also involves the construction of Multi-Modal Terminals, Jetties and dredging.
7. It may be important to note that river ecosystems, in general, have unidirectional flowing water with dynamic flow rates, containing many different micro & macro aquatic

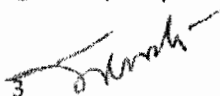
habitats and plants and animals that have adapted to live within water flow condition. A variety of plants can be found growing in a river system. The water of Ganga is rich in a diverse faunal regime with 140 species of fish and 90 species of amphibians, 12 species of freshwater turtles and also endangered *magar* and *gharial* crocodiles as well as bull sharks and Gangetic sharks (endangered) down near the Bay of Bengal in estuarine terminals apart from dolphins. These are the vital part of Ganga's ecosystem. As per the report of IIT Consortium, biological profile of Lower Ganga (Varanasi-Farakka), LGB (Farakka-Sagar) includes a variety of Diatoms, Green Algae, Zoo Benthos, 35/37 fish families with 12/16 RET species and higher vertebrates like turtles, Gangetic Dolphins, Crocodile etc.

8. The representatives from IWAI made a detailed presentation before the committee wherein various technical, economic and social aspects of the proposed waterways system and construction activities/projects therein were discussed. It was also informed that in order to move a 2,000-tonne barge, there is a need of minimum three-metre depth/draft between October to April. In the first phase, attempts will be made to create a 1,400-km channel with a width of 45 metres and a minimum draft of 3 metres from Varanasi to Haldia to enable two vessels to pass smoothly.

9. Maintenance dredging will be done to get the minimum depth of 2.2 m to 3.0 m varying from place to place. The dumping of the dredged material will be done back to the river (which, according to Expert Committee, would have an additional burden on the river ecosystem).

10. The proposed site also encompass the Kashi Turtle Sanctuary (Varanasi) and Vikramshila Gangetic Dolphin Sanctuary (Bhagalpur), two major hotspots from conservation of rare and endangered species point of view. It was also informed that various EIA studies for the proposed project have already been carried out in view of the ecological sensitivity of the region. The West Bengal State Coastal Zone Management Authority (WBSCZMA) has already forwarded their recommendation to the MoEF&CC for Haldia Modal Terminal with reference to Coastal Regulation Zone (CRZ) clearance and the proposal was discussed at the meeting of the Expert Appraisal Committee meeting held on 11th May 2017 in the Ministry.

11. The IWAI representatives pointed out towards the provisions mentioned in item 7(e) of the Schedule under EIA Notification, 2006 amended from time to time and claimed that that the maintenance dredging is exempted from obtaining environmental clearance. They also mentioned that as per the Ministry's Sustainable Sand Mining Management Guidelines, 2016, the de-silting of the reservoir, dredging for upkeep and maintenance of structures,

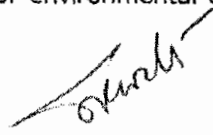
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channels and averting natural disasters will not be treated as mining for the purpose of environmental clearance.

12. The Committee heard the presentation and argument made by project proponent in favour of proposed project for development of NW-1 between Varanasi and Haldia for a stretch of 1390 km. The IWAI representatives also indicated the issues associated with water depth creation as per the vessel size, maintenance dredge required, issues related to flora fauna and studies that are carried out for turtle sanctuary, dolphin conservation including social impact assessment and risk assessment for bunkering facilities, storage for conventional fuel and creating a LNG (Liquid Natural Gas) facility at specified facilities at Gazipur, it appears that project must have environmental impact assessment as an integral part of DPR or otherwise must be supported by additional documents for addressing environmental issues. Therefore, the committee feels that, in the interest of such project and their sustenance, both during the time of creation or operation for longer duration with environmental and social viability of the project must be included in the EIA Notification, 2006 and be appraised as 'Category A' project with reference to specific issues addressing river as living entity, changing hydrology, riparian rights, interstate boundary impacts, protection of banks, and floodplain zones of the river system.

13. It is further reiterated that in Item 7(e) of the Schedule under the EIA Notification, 2006, as amended from time to time, it is mentioned, "*Maintenance dredging is exempt provided it formed part of the original proposal for which Environment Management Plan (EMP) was prepared and environmental clearance obtained.*" One of the Expert Committee members has mentioned that the EAC for 'Infrastructure-2' in its 10th meeting held on 24-25th October 2016, has already recommended ToR along with public hearing prescribed for a proposal on Development of Stretch of Mandovi River (NW-68), Zuari River (NW-111) and Cumberjua Canal (NW-27) of National Waterway in the State of Goa by the M/s Inland Waterway Authority of India.

14. After detailed deliberations during the meeting, the committee clarified that the proposal for implementation of 'Jal Marg Vikas Project' for augmentation of navigational aids in the Haldia-Varanasi stretch of National Waterway-1 (NW-1) by NWAI is covered under the EIA Notification, 2006 and be appraised as 'Category A' project with reference to specific issues addressing river as living entity, changing hydrology, riparian rights, transboundary impacts, protection of banks, and floodplain zones of the river system. Also, the maintenance dredging involved in this project cannot be exempted from environmental clearance as the project has not obtained any prior environmental clearance as provided in



column 5 of item 7(e) of EIA Notification as amended from time to time. In order to bring more clarity regarding the applicability of such projects under EIA Notification, 2006, the Expert Committee recommended for amending the EIA Notification, 2006 to include 'Inland Waterways, Jetties and Multi-Modal Terminals under the list of items requiring prior environmental clearance in Column 2 against item 7(e) of the Schedule requiring prior environmental clearance as Category A projects. However, Public Hearing in respect of Inland Waterways may be restricted to areas where facilities such as jetties, terminals, storage are created.

B. Applicability of EIA Notification, 2006 for Small Scale Units and categorisation into B1, B2 Categories and manufacturing of Linear Alkyl Benzene Sulphonic Acid (LABSA)

15. The representative from the LABSA manufacturing units and other small scale industries made a presentation before the committee for consideration of their demands related to applicability of EIA Notification for LABSA and categorisation of projects/activities.

16. The matter related to LABSA manufacturing has already been discussed in previous meetings of the Expert Committee, wherein it has unanimously been recommended to consider the LABSA manufacturing units under the ambit of environmental clearance. However, the use of LABSA as an ingredient in making products like detergent or soap etc. does not attract the prior environmental clearance. As far as the categorisation of B category projects/activities into 'B1 or B2 categories' is concerned, the Expert Committee will deliberate further about the categorisation of B1 or B2 so far as the small-scale units manufacturing LABSA and other similar synthetic organic chemicals is concerned.



C. Applicability of EIA Notification, 2006 for Common Solid Waste Management facilities and their threshold limits

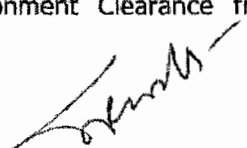
17. The Ministry of Urban Development has requested to revisit the process of Environmental Clearance (EC) for Solid Waste Management Treatment and Processing Facilities and exempt the Common Municipal Solid Waste Management Facility of less than 1500 TPD from the requirement of EC under the provision of EIA Notification, 2006.

18. The Expert Committee deliberated the issue and noted that no scientific basis has been given for fixing threshold value of 1500 TPD of waste processing in the Common Solid Waste Management Facility for exemptions from the requirement of prior EC. Also, there are a number of cases in the NGT such as Almitra H. Patel Vs UoI & others, Kudrak Sandhu Vs. UoI & Ors., Sukhdev Vihar Vs. UoI & Ors., incidences of fire in the Deonar and Gazipur dump sites, etc. The Expert Committee recommended to examine the issue, related legal cases in detail and gather more information for taking up the matter in the next meeting so that pragmatic decision could be taken.

D. Waiver of Environment Clearance to Project Developers on setting up of biomass-based Second Generation (2G) Ethanol Biorefinery

19. Ministry of Petroleum and Natural Gas (MoPNG), vide letter dated 15.03.2017, has pointed out that as per EIA Notification, 2006 amendment from time to time, waiver from mandatory prior environmental clearance (EC) has been granted for setting up Biomass based power Plants of capacity up to 15 MW and for setting up biomass-based Power plants of capacity ≥ 15 MW, EC is sought from SEIAA only. On similar lines, it has been requested to grant a waiver from the process of EC for setting up of Second Generation (2G) Ethanol Biorefineries. It has been requested to consider following:

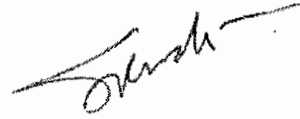
- a. Biomass-based 2G Ethanol Biorefineries of a capacity ≤ 100 KL per day Ethanol, may be exempted from Environment Clearance in line with EIA amendment dated 25.06.2014 for biomass-based Power plants of a capacity ≤ 15 MW.
- b. Biomass-based 2G Ethanol Biorefineries of capacity ≥ 100 KL per day may be included under "Category B" Projects, requiring Environment Clearance from State/Union



Territory Environment Impact Assessment Authority (SEIAA) only, in line with EIA amendment dated 25.06.2014 for biomass-based Power plants of capacity ≥ 15 MW.

20. The Expert Committee observed that production of Ethanol from biomass have environmental issues such as residues from biomass coming as fermentation process along with the product, handling of biomass in effective manner and treatment of waste water coming out after separation of product requires a detailed EMP and hence must attract environmental clearance process to address the environmental issues and therefore must be continued to be appraised as per the existing process under EIA Notification, 2006 amended from time to time.

21. It was decided, with the permission of Chairman, that next meeting of the Expert Committee will be held on 14th June 2017 in the Ministry at Indira Prayag Bhawan, New Delhi. Meeting ended with vote of thanks to the Chair.



Annexure-2

Dy. No. 22/12/17 Secy(s)/20

Dated: 22-12-17

No. F.No.14-9/2016-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi-110003

Dated: 21st December, 2017.

OFFICE MEMORANDUM

Subject: Non-requirement of environment clearance for maintenance dredging in rivers for the purpose of navigation - regarding.

This has reference to your Office Memorandum IWT-11011/89/2016-IWT-(Vol.II) dated 7th December 2017 on the above mentioned subject.

2. The minutes of the meeting held under chairmanship of Hon'ble Minister, Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation held on 24.10.2017 concluded that as per the extant legal position, no prior EC is required for maintenance dredging for navigational channel for Inland Waterways.
3. In view of the above the Ministry of Shipping may like to go ahead with the decision taken during the meeting held under chairmanship of Hon'ble Minister, Road Transport & Highways, Shipping held on 24.10.2017 subject to the implementation of the environmental safety measures as enclosed as annexure.
4. This issues with the approval of the competent authority.

Sharath
21/12/17
Sharath Kumar Pallerla
Director

To

The Secretary,
Ministry of Shipping,
Parivahan Bhavan, 1, Parliament Street,
New Delhi - 110 001

Adv (E)

Vikram
22/12/17

Environmental safety measures to be implemented

- i. 'Consent to Establish' and 'Consent to Operate' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- ii. The project authority shall ensure that no rivers or tributaries are blocked due to any activities at the project site and free flow of water is maintained.
- iii. Shoreline shall not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary.
- iv. Dredging shall not be carried out during the fish/turtle breeding seasons.
- v. All vessels used in the river will be fitted with noise control and animal exclusion devices so that aquatic life is not unduly disturbed.
- vi. Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts aquatic life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- vii. Construction waste including debris shall be disposed safely in the designated areas and in no case shall be disposed in the aquatic environment.
- viii. Vessels shall not discharge oil or oily water such as oily bilge water containing more than 15 ppm of oil.
- ix. The project authority shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.
- x. All vessels will also have to comply with 'zero discharge' standards to prevent solid or liquid waste from flowing into the river and affecting its biodiversity.
- xi. The dredging shall be carried by integrated and systematic planning by selective grid method by allowing migratory movement of Benthic fauna.
- xii. All required Noise and vibration control measures are to be adopted in Dredgers. Cutter section Dredgers should be avoided as much as possible which produces more noise and vibration. No Drilling and Blasting is to be carried out.
- xiii. Pre geo-tectonic studies has to be completed and the strata to be dredged is predetermined with complete data pertaining to hardness, compressive and tensile strengths.
- xiv. Dredger type and other strata loosening methods shall be preconceived.
- xv. Staggered dredging shall be carried based on turbidity monitoring to minimise the impact of turbidity.
- xvi. Threshold level of turbidity, which has a minimal effect on fauna, has to be predetermined and Dredging planned accordingly.
- xvii. Further silt screens needs to be used for minimising the spread of Turbidity.

- xviii. Disposal places of Dredged sediments needs to be predetermined, along the shore by assessment of suitability, which will not affect the shoreline (erosion) and also causing impacts during monsoon and flooding.
- xix. As much as possible, it shall not be disposed off in the river itself, and the site should be such that the dispersion is quicker by undertaking modelling studies.
- xx. Ballast water control and management measures shall be implemented.
- xxi. Waste and waste water reception facilities in Jetty shall be implemented.
- xxii. The Risk and Disaster management plan has been prepared in consonance with the manual of terminals and harbours issued by the Ministry of Environment and Forests dated 5th May 2010.
- xxiii. Standard Operating Procedures (SOP) and Emergency Response Plan (ERP) for onsite and offsite emergencies shall be prepared and implemented based on Hazard Identification and Risk Assessment to handle, process, store and transport of hazardous substances.
- xxiv. Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill shall be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management shall be followed.
- xxv. No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.
- xxvi. All the erosion control measures shall be taken at water front facilities.
- xxvii. Necessary Air Pollution Control measures shall be taken during loading, unloading, handling, transport of the material at the berthing and water front facilities.
- xxviii. The Vessels shall comply the emission norms prescribed from time to time.
- xxix. All safety measures are to be implemented in coordination with the respective state government departments such as State Forest Department, Public Works Department, State Pollution Control Board etc.


29/12/17
Sharath Kumar Pallerla
Director