

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

.....

ORIGINAL APPLICATION No. 08/2015/EZ

IN THE MATTER OF:

**Subhas Datta,
S/o Late Baneswar Datta
25/1, Guitendal lane
P.O. P.S. & District- Howrah,
West Bengal
PIN: 711101**



.....Applicant

V e r s u s

- 1. State of West Bengal,
Through the Principal Secretary,
Urban Development Department
Govt. of West Bengal, Narayan Sector-1
Block DF-8, Bidhan Nagar
Kolkata-700064.**
- 2. Department of Environment,
Govt. of West Bengal,
Through the Additional Chief Secretary,
Poura Bhawan, Salt Lake City
Kolkata-700106.**
- 3. West Bengal Pollution Control Board,
Through Member Secretary,
Paribesh Bhawan, 10A, Block-LA
Salt Lake city,
Kolkata-700098.**
- 4. Calcutta Port Trust
Through the Secretary
15, Strand Road,
Kolkata-700 001.**
- 5. Manor Floatel Limited
Floatel, 9/10, Kolkata Jetty
Opposite of SBI, Eastern Regional Headquarters
Strand Road, Kolkata-700001.**
- 6. Ministry of Environment, Forest & Climate Change
Through the Secretary,
Govt. of India**

**Indira Paryabaran Bhawan
Jor Bagh Road,
New Delhi-110003.**

- 7. National Ganga River Basin Authority
Through the Mission Director
C/0-National Mission for Clean Ganga
3rd Floor, MDSS Building
Scope Complex, Lodhi Road,
New Delhi-110003.**
- 8. Kolkata Improvement Trust
Through Officer on Special Duty
P-16, India Exchange Place Extension
Kolkata-700003**
- 9. Kolkata Metropolitan Development Authority
Through the Chief Executive Officer,
Pouro (Prashasan) Bhawan
DD-1, Sector-1, Salt Lake
Kolkata-700064.**
- 10. Howrah Municipal Corporation
Through the Commissioner,
10, Bipplabi Hraen Ghosh Sarani
Howrah-711101.**
- 11. Kolkata Municipal Corporation
Through the Municipal Commissioner
5, S.N. Banerjee Road,
Kolkata-700 013.**
- 12. Second Vivekananda Bridge Tollyway Company Pvt. Ltd.
8th Floor, Plot AB Block-GP, Sector-V
Salt Lake Electronic Complex, Kolkata-91.**
- 13. IRC Commercial Pvt. Ltd.
Through its Director
IRC House, 1, Sunyat Sen Street
Kolkata-700 012.**
- 14. Srimati Rani Seth
W/0 Gopinath Seth
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107**
- 15. Srimati Sangita Saraf
W/0 Dilip Saraf
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107**

16. Srimati Sandhya Saraf
W/o Raja Saraf
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
17. Srimati Sarita Saraf
W/o Bipul Saraf
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
18. Srimati Saroj Pandey
W/o Sri Kailash Pandey
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
19. Sri Ananda Kumar Gupta
S/o Late Bijoy Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
20. Sri Kamal Kumar Gupta
S/o Late Bijoy Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
21. Sri Amit Kumar Gupta
S/o Late Bijoy Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
22. Srimati Manju Devi Gupta
W/o Late Ajoy Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
23. Sri Kushal Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
24. Sri Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107
25. Sri Sanjay Kumar Gupta
S/o Late Bijoy Kumar Gupta
40/2, Mahendra Bagchi Road, Bally
Police Station Bally, Howrah-711107

25. Gaudiya Mission
Through the Secretary
16A, Kali Prosad Chakraborty Street
Kolkata-700003

27. M/s Antrix Housing L.L.P.
Registered Office at 225C
AJC Bose Road, 4th Floor
Kolkata-700020

28. The Irrigation & Waterways Department
Through its Secretary
Govt. of West Bengal.

.....Respondents

COUNSEL FOR APPLICANT:

Mr. Subhas Datta, in person.

COUNSEL FOR RESPONDENTS:

Mr. Bikas Kargupta, Advocate, Respondents No.1, 2 & 28

Ms. Arpita Chowdhury, Advocate, Respondent No. 3

Mr. Dipak Ranjan Mukherjee, Advocate, Respondent No. 4

Mr. Avijit Dey, Advocate, Respondent No. 5

Mr. Gora Chand Roy Choudhury, Advocate, Respondent No. 6

Mr. Ashok Prasad, Advocate, Respondent No.7

Ms. Paushali Banerjee, Advocate, Respondent No. 8

Mr. Sanjib Kumar Mukhopadhyay, Advocate, Respondent No.9

Mr. N.C. Bihani, Advocate, Ms. Papiya Banerjee Bihani, Advocate &

Ms. Amrita Pandey, Advocate, Respondent No. 10

Mr. Achintya Kumar Banerjee, Advocate and Mr. Gopal Chandra Das,
Advocate for Respondent No. 1

JUDGMENT

PRESENT:

Hon'ble Mr. Justice S.P. Wangdi, Judicial Member

Hon'ble Prof. (Dr.) P. C. Mishra, Expert Member

Reserved On 20.07.2017

Pronounced On 13.09.2017

1. Whether the Judgment is allowed to be published on the net?
Yes
2. Whether the Judgment is allowed to be published in the NGT Reporter?
Yes

PROF. (DR.) P.C. MISHRA, (EXPERT MEMBER)

The Applicant Mr. Subhas Datta, an environmental activist and public spirited person engaged in various social, environmental and philanthropic activities filed this application challenging the construction work being undertaken by the Government respondents in the name of Ganga river bank development towards Kolkata and Howrah side thereby encroaching upon the river Hoogly (Ganga) by 15-20' or more. He has specifically mentioned about construction of Parking space towards South-West side of Nimtala Ghat Crematorium by reclaiming a sizeable portion of the river bank, and construction of pathway at the eastern side of river Hoogly by Calcutta Metropolitan Development Authority from the stretch of

Millennium Park towards Babughat & further South/North. It is also his case that a private hotel named as Floatel Hotel operating at the river bank at 9/10 Kolkata Jetty has converted the entire river bank into their exclusive office space, Parking space, garden, generator room etc. The Hotel authorities, as alleged by the applicant, have constructed various structures through a long stretch of riverbank for use as multi-gymnasium, health club etc for which no permission has been obtained from Kolkata Port Trust (KoPT, in short), who has conservancy and maintenance Jurisdiction to the extent of 47.5 meters (150') from the mean of High Water Spring (HWS) at both the sides of the river from the sea point to Jangipur Barrage point.

2. The Applicant would further submit that such unauthorized constructions of Hotel Floatel as well as the river bank development/beautification work like pathway/footbridge making etc. undertaken by Calcutta Metropolitan Development Authority on the river bank and in some places inside the river, for which no Environmental Impact Assessment (EIA, in short) Studies have been done & Environment Management Plan (EMP, in short) proposed, would lead to changes in the flow of water, marine biodiversity, contamination of waterbody etc. and would have far reaching ecological consequences in the Riverine Ecosystem.

3. The Applicant made the following prayer for our consideration:

- I. *“ To direct the respondents concerned to take immediate steps, actions and measures not to allow any concrete constructions and commercial activities prone to create pollution hazard to the riverfront and the river;*
- II. *To direct the respondents to immediately stop all developmental and beautification work in the riverfront of Ganga without undertaking any Environmental Impact Assessment (EIA);*
- III. *To direct the respondents concerned to undertake proper Environment Impact Assessment (EIA) before proceeding further with any developmental/beautification work on the riverbank;*
- IV. *To direct the respondents not to violate the provisions of the West Bengal Town & Country (Planning & Development) Act, 1979 while undertaking any construction and commercial activities along the riverbank;*
- V. *To direct the concerned respondents to demolish all unauthorized constructions on the river and river bank which are causing damages to the river Ganga and its marine bio-diversity;*
- VI. *To direct the respondents concerned to demolish all the concrete/steel pillars from the river bed under the Second Hooghly Bridge;*
- VII. *To direct the respondents to ensure that the basic objective of having a environmental friendly riverfront is not defeated while doing the river bank developmental/beautification work;*
- VIII. *To appoint a committee of experts to study all the riverfront developmental work, the effects of such works on the ecological balance of river and riverbanks;*
- IX. *To pass such or further order or orders, direction or directions as your Honour may deem fit and proper. ”*

4. On the first day after hearing the applicant for admission, we issued notice and direction to several authorities to file affidavits in reply and restrained any further construction in the river bank and the river bed of Hoogly in respect of the areas viz.

Nazirganj to Bally Khal in western side and Tollygunj to Dakhineswar in eastern side. We further directed that no construction shall be allowed on the banks and river beds of Hoogly which fall within the Jurisdiction of KoPT without an EIA Study & EMP. For clarity, the order passed on first day, i.e. 13.02.2015 is reproduced below:

“Heard Mr. Subhas Datta, Environmentalist and Social Worker, who is the applicant of this application and appearing in person.

In this original application the applicant Shri Datta is a friend of the society has agitated a serious environmental issue which is relating to flow of river Hooghly through adjoining areas of two major cities viz. Kolkata and Howrah.

The human civilization started its beginning long back on the banks of rivers leaving the forest life. The river water nurtured them and human civilization accordingly has grown and come to the present stage. A river and the human beings both have their mind and psychological behaviour alike, as both of them do not like to be bounded by anything. Human beings want to have the progress upto the infinite stage expanding his ideas and thoughts boundless, similarly rivers also do not tolerate any bounding by concrete embankment or any concrete construction on the river body which has obstructed its freedom to flow in the low tide and in the high tide. Like man, river also wants space to spread. The natural embankment, if is destroyed by squeezing, tampering and encroaching its embankment and river bed, the flow of river water suffers obstruction of easy movement. The river never like it and it always like man wants to destroy its bounding figure to find out its own space to move, and to spread. The natural spreading area of a river if encroached upon by a boundary, it automatically results a major calamity causing destruction of the human civilization by over-flowing man-made embankment on destroying construction and the bounded materials. The natural embankment also keeps the eco-system in balanced position maintaining growth of flora and fauna and other different water species who live in the river water.

Ganga/Hooghly is a river which has covered the entire India right from the North upto Eastern fringe of Bay of Bengal and nurturing the human civilization of India. Hence the protection of the free movement of the river Hooghly/Ganga is the prime consideration to protect our civilization. Here lies a great environmental impact issue for our consideration.

*The flow of the river cannot be bounded has been very nicely depicted by the great Vishwa Kabi Rabindra Nath Tagore in his song **“Ogo Nadi apon bege pagol para...”** The theme of that song is that the river cannot be*

bounded by any boundary, its flow cannot be restricted and it moves madly by spreading its area with its speed and current. It keeps his path unknown and it changes its path as and when it desires which cannot be assessed by the human beings. It changes the course by creating new embankment and taking old embankment in its river bed. The song is thus:-

Translation	Transliteration
<i>Oh river, at your own whim racing away from me Fragrance-filled, sleepless- I'm the silent Jasmine tree. Always still, but in my steps deep the secret I keep of treading by showering flowers and by the new leaves. Oh river with your crazy run Lost in yourself, on your way with every turn, My journey's untold- towards the light, the life's flight It's joy known only to the sky, and the silent stars of night.</i>	<i>Ogo nodi, apon bege pagol para Ami stabdho chNapar toru gandhobhore tandrahara. ami sada achal thaki, govir chala gopon rakhi, amar chala nobin patae, amar chala fuler dhara. ogo nodi, chalar bege pagol para. pathe pathe bahir hoe apon hara amar chala jae na bala – alor pane praner chala – akash bojhe anondo tar, bojhe nishar nirab tara</i>

It is alleged in this application that the eastern and western banks of river Ganga (Hooghly) adjacent to the Kolkata Metropolitan City and Howrah City respectively, there are so many concrete constructions made in the name of the beautification and development of the river Ganga by different authorities viz. State Government, Govt. Undertakings, Corporation, Private Sectors etc.. Photographs have been annexed to reveal the real state of affairs wherefrom it appears that there is encroachment of river bank and river bed. Even concrete constructions have been raised in the nature of parking space at Nimtala Crematorium Ghat in river bed and a big Hotel named Floatel is running Hotel business on the river bank. Constructions on both sides of the river also have been made encroaching major area of the river bed violating the environmental law as emphasized by the applicant. We are of the view that a case has been made out for our intervention to deal with the environmental issue raised in this application. Hence this application is admitted for hearing.

Leave is granted to applicant to add National Ganga River Basin Authority, Kolkata Improvement Trust, Kolkata Metropolitan Development Authority, Howrah Municipal Corporation & Kolkata Municipal Corporation as party respondents herein now. Let copies of the application be served to all the respondents including the added respondents.

Issue notice by dasti/speed post on usual terms to all respondents.

Chief Secretary, Govt. of West Bengal, State Pollution Control Board, Kolkata Port Trust, Kolkata Metropolitan Development Authority, Kolkata Improvement Trust, Kolkata Municipal Corporation, Howrah Municipal Corporation, National Ganga River Basin Authority are directed to submit respective status report to be signed by the executive head of the aforesaid authorities. National Ganga River Basin Authority is further directed to make inspection of the area in question viz. western and eastern bank of river Ganga flowing in between twin cities of

Kolkata and Howrah in respect of embankment of river Ganga from Tollygaunj to Dakshineswar (Eastern Bank) and Nazirganj to Bally Khal (Western Bank).

It appears further from the annexures that applicant has raised his grievance about the illegal construction as made by the respective authorities including Government authorities and private bodies. But there is no positive result and his grievance has not been properly addressed. It is alleged further that for the name of beautification and development of embankment of river Ganga many proposed constructions are in the pipeline as reported in the Bengali newspaper namely "Ai Samay" in its publication dated 11.02.2015, the copy of which has been filed before us. Let this copy be kept on record. Leave is granted to file the translated version from Bengali to English of that news publication. It is further alleged that there is violation of pollution control norms and the environmental rules and regulations by Hotel Floatel located at (9/10, Kolkata Jetty (Opposite SBI, Eastern Regional Head Quarter, Strand Road, Calcutta) in which 49 well furnished rooms, 6 open air banqueting halls, 7 Indoor banquet venues, restaurants, Bar and Service Areas are in operation. Public Grievance Cell of the State Pollution Control Board in its record of proceedings had considered the grievance of the complainant after making proper inspection. The record of proceedings dated 30.05.2014 is reproduced as under:-

"Shri U.Roy Mukherjee appeared on behalf of the respondent party. Representative of the complainant appeared.

It is a complaint against one hotel-cum-restaurant allegedly causing environmental pollution. Representative of the complainant submits that garbage/waste materials of the respondent party is being disposed of in the river and thereby causing pollution.

The unit has valid 'Consent to Operate' of the State Board (valid up to 30/11/2014). Inspection caused on 08/04/2014 by the State Board official is considered. Considering the inspection report, the respondent unit is directed to comply with the following directions strictly:

- i. To remove the 'charcoal vatti' from the unit.*
- ii. To clean the floating waste on regular basis*
- iii. To submit effluent treatment plant scheme immediately and the waste water should be discharged after proper treatment;*
- iv. No effluent should be discharged to river Hooghly in any circumstances;*
- v. The unit should submit a compliance report by 31/08/2014.*
- vi. On bare reading of said record of proceeding it is abundantly clear that though the Floatel is in operation with consent to operate issued by the State Pollution Control Board valid upto 30.11.2014, but there was no effluent treatment plant to treat the waste water and the Pollution Control Board accordingly directed them to submit a scheme of effluent treatment plant and further directed not to discharge the effluent in the river Hooghly under any circumstances.*

Having regard to the aforesaid report & record of proceedings it is proved that there is no effluent treatment plant and there is no proper treatment of waste water by the Hotel Floatel which is being discharged

in the river Ganga, either directly or indirectly through sewerage drain. The Pollution Control Board is directed to monitor and to submit report whether waste water treatment plant in respect of the said hotel is in operation or not. We expect that the respondent Hotel Floatel has complied with those directions as stated in the record of proceedings. We see that record of proceedings was issued long back in May 2014 and time granted upto August 2014 by the PCB. If State Pollution Control Board finds that their direction passed in the record of proceedings have not been complied with by the said hotel, they will pass an appropriate order of closure of the business of the said hotel in accordance with law. It is something a very serious issue relating to flow of river water which has been obstructed by the construction of hotel leading to disturbance of the water flow system of a river.

The respondents are also directed to file the respective reply within three weeks from today. Status report also to be filed within three weeks from this day. Rejoinder, if any, is to be filed within a week thereafter.

The State Pollution Control Board will submit its status report within three weeks from this date by making proper inspection of the area in question referred to above detailing the various projects in the construction phase/construction completed as the case may be on the river bed and river banks in aforesaid areas in the name of the development of the river Ganga and environmental impact thereon causing disturbance of eco-balance and free flow of river water in high tide.

Hence, we pass an order of injunction restraining any further construction in the river bank and the river bed of river Ganga (Hooghly) in respect of the areas viz. Nazirganj to Bally Khal in western side and Tollygaunj to Dakhineswar in eastern side of the river. No construction on the banks and river beds of the Ganga (Hooghly) which are falling within the jurisdiction of the Calcutta Port Trust shall be allowed without a study on Environment Impact Assessment (EIA in short) of such construction and devising Environmental Management Plan (EMP in short) . Calcutta Port Trust is directed to submit a full report detailing the encroachment of river banks and river beds which are falling within their jurisdiction and in respect of the area in which they have the duty to manage and control the development work and to maintain environmental issues. In the status report the Chairman, Calcutta Port Trust must mention as to whether the consent /approval was obtained by the said hotel owner/Govt. and Corporation as the case may be relating to construction falling within their jurisdiction as mentioned above i.e. Tollygaunj to Dakineshwar eastern side of the river Hooghly and Nazirganj to Bally Khal in western side of said river.

Chief Secretary, Govt. of West Bengal is directed to take all steps and measures to comply this order. A compliance report to be filed on next date.

Leave is granted to the applicant for providing correct address of Ministry of Environment, Forests & Climate Change.

Matter stands adjourned to 20.03.2015."

5. Various authorities filed their respective replies/responses in terms of our direction issued from time to time. The Applicant, Mr. Datta, brought to our notice a paragraph (e) with reference to the issue no. 1 as filed by the Chief Secretary which reads as such:-

“In connection with river front beautification programme a pedestrian walkway along the stretch of river front adjacent of Manor Floatel has been constructed by KMDA. The foundation of the said path way was developed on the existing bank protective wall and no construction work was built on the river bed.”

Mr. Datta would contest this statement by referring to the photograph annexed at page 41 of the OA which is clearly indicative of construction of the Floatel pathway on the riverbed. He would further submit that such pathway obstruct the flow of river through the pillar as constructed for the side pathway of the Floatel Hotel. Ld. Govt. Counsel, Mr. Bikash Kargupta, appearing on behalf of the Chief Secretary would submit that no construction has been undertaken on river bed but only pillar has been set up on the existing bank protection wall.

By referring the photograph annexed with the OA at page 36, Mr. Datta would further submit that an extension of Nimtala Ghat has been constructed on the river bed illegally.

6. In view of such rival contentions made on the issue of constructions on river bed, we directed the KoPT & KMDA to

constitute a committee of expert engineers and answer the following points after making inspection of the spots:

- I. Whether the disputed pathway near Manor Floatel has been constructed on the river bed encroaching the river?
- II. Whether construction has been made at Nimtala Burning Ghat on the river bed and by obstructing the flow of river?

The Reports of inspection were filed by KoPT and KMDA independently and the Applicant filed objection to the inspection report. The KMDA in its affidavit would submit that the foundation of the said pathway near Manor Floatel was developed on the existing bank protective wall within the foreshore area of the river and not in the riverbed in strict adherence to the approval issued by KoPT. The KMDA did not offer their view on construction at Nimtala Crematorium site. KoPT also offered identical view on floatel pathway as well as the Nimtala Burning Ghat and these constructions are in hydraulically insignificant zone according to KoPT.

7. The reports of KMDA & KoPT were vehemently opposed by the applicant who referred to the following documents, filed by various authorities and agencies, which, according to him, clearly reveal that the said constructions are in the river bed and not in the river bank:-

- I. *“Page 49, paragraph 1 of the affidavit filed on 10th April 2015 by the Chief Secretary, Govt. of West Bengal on “Walkway near Floatel Hotel”.*
- II. *Page 9 (annexure-R1) of the affidavit dt. 10th April 2015 filed by Chief Executive Officer, KMDA;*
- III. *Page 315 & 316 of Annexure-E of the affidavit filed by the Chairman of KOPT.*
- IV. *Hydrodynamic Study report filed by Kolkata Municipal Corporation at page 20, 5.1.*
- V. *Hydrodynamics report of Jadavpur University.”*

8. As there are conflicting views in the documents filed by various authorities, we appointed Indian Institute Of Technology, Roorkee as an Expert Body in undertaking an on the spot inspection and submit a report answering to the following four points,

- I. Whether the walkway/pathway constructed adjacent to a stretch of river Ganges near Manor Floatel hotel is on the river bed?
- II. Whether such construction is hydraulically significant?
- III. Whether the construction of Nimtala Crematorium and other construction near it are on the river bed?
- IV. Whether such constructions are hydraulically significant?

9. In terms of our order dated 13.01.2016, the IIT, Roorkee submitted the Techno-financial proposal on 04.02.16 for undertaking the inspection and submitting the report with a financial implication of a minimum of Rs. 26.72 lakhs and total time period of 3 months for completion of study. However, the Ld. Advocates appearing for the parties including the applicant of OA would submit that since experts are available locally, the Hon'ble Bench may consider to appoint Dr. Kalyan Rudra,

Chairman of West Bengal State Pollution Control Board, an expert on river studies, and one expert from Hydrology Dept. of Jadavpur University to undertake such study. While agreeing to such submission, we constituted a committee consisting Dr. Kalyan Rudra, as Chairman, an expert to be nominated by Head of Hydrology Dept., Jadavpur University with Senior Environmental Engineer, State PCB as member convenor to undertake the work and submit a report within six weeks. The committee was later reconstituted vide our order dated 13.09.2016 consisting of following members:

- I. Dr. Kalyan Rudra, Chairman
- II. An Expert, School of Water Resource Engineering, Jadavpur University (to be nominated by the Vice Chancellor, Jadavpur University)
- III. A Senior level officer from Hydraulic Study, Dept of KoPT, to be nominated by Chairman, KoPT
- IV. A Senior level official from Inland Water Authority of India, to be nominated by the Director of Inland Water Authority of India, Regional Office, Kolkata

10. The Applicant by an affidavit filed on 29.02.2016 brought to our notice the erosion of Ganga river bank in the Millennium Park area which is within Port Trust Area. Therefore, we directed KoPT, KMDA and Dept. of Environment, Govt. of West Bengal to file respective affidavits on measures to be taken to prevent erosion of Ganga river bank and simultaneously maintaining the biodiversity of the river ecosystem.

However in view of the submissions by the Ld. Counsel, Mr. Dipak Ranjan Mukherjee, for KoPT and Ld. Govt. Counsel, Mr. Bikash Kargupta for Department of Environment that neither KoPT nor Department of Environment has the necessary expertise to undertake such studies and possess the infrastructure and expertise to recommend measures for arresting erosion, we impleaded the Dept. of Irrigation and Waterways as Respondent No. 28 and directed them to file necessary affidavit on the issue. However, the Irrigation & Waterways Dept. filed a proposal for the entire stretch between Tollygung to Dakhineswar on the eastern bank and Nazibgunge to Bally Khal on the western bank and the estimated costs was exorbitantly high.

11. Considering the confusion that appears to have cropped up in understanding the crux of the issues and the various directions issued by us, we ordered to have a consultative meeting among all the stakeholders which was held on 29.11.2016. The order passed after the consultative meeting is reproduced below:-

“Consultative meeting was held as scheduled in the Conference Room of Arbitration Centre, NGT at 3 PM in which the following were present:

- | | |
|----------------------------------|--------------------------------------|
| I. Mr. Kalyan Rudra | : Chairman, PCB |
| II. Mr. Kausik Chattopadhyay | : Secretary, Deptt. of Irrigation |
| III. Mr. Debasish Sengupta | : Jt. Secretary, Dept. of Irrigation |
| IV. Mr. Ujjal Kumar Mukhopadhyay | : Sr. Environmental Engineer, PCB |
| V. Dr. K. Chakraborty | : Dy. Chief Hydraulic Engineer, KoPT |
| VI. Capt. A. Ghosh | : Dy. Director-II, KoPT |
| VII. Mr. P.P. Datta | : Manager (Env.), KoPT |
| VIII. Mr. S Chandra | : DG, OSD (O/T), KMC |
| IX. Mr. Arun Kr. Chakravarty | : DG/GAP/KMDA |
| X. Mr. Sutanu Prasad Kar | : Addl. Secretary, U.D. & Programme |

Director, WBSPMG

- XI. Mr. Niranjana Kumar : Spl. Sec. KMDA
 XII. Mr. Jyoti Prakas Sarkar : Dy. CE (Civil)
 XIII. Mr. Uttam Kumar Shaw : Law Officer, KIT
 XIV. Mr. Haradhan Singh Roy : Law Officer, KoPT
 XV. Mr. Ashok Kumar Das : Secretary, KIT
 XVI. Mr. Debasish Chakraborty : Jt. Secretary, KMDA

During the deliberations useful suggestions were made by various Members, especially by Dr. Kalyan Rudra, Chairman PCB, Mr. Debasish Sengupta, Jt. Secretary, Irrigation Deptt. and Dr. K. Chakraborty, Dy. Chief Hydraulic Engineer, KoPT. Although wide range of discussions were held, the issues pertaining to the construction of Pathway near Manor Floatel Hotel, crematorium and other constructions at Nimtala and river bank erosion at Millennium Park area were specifically dealt with.

Mr. Debasish Sengupta, Jt. Secretary, Irrigation Deptt. suggested further study to be made on various aspects pertaining to the structures raised within the inter-tidal zone in order to consider mitigation measures.

We, therefore, would prefer to have a study done on these aspects as well as on the aspects referred to by Dr. Kalyan Rudra, Chairman, PCB and based on such suggestions mitigation measures that would be suitable for protection of the area in question, would be decided.

*The study shall be carried out jointly by a team headed by Dr. Kalyan Rudra, Chairman, PCB, Mr. Debasish Sengupta, Jt. Secretary, Irrigation Deptt., Dr. K. Chakraborty, Dy. Chief Hydraulic Engineer, KOPT, Mr. Arun Kr. Chakravarty, DG/GP/KMDA and Prof. Asish Majumder, Jadavpur University. KOPT shall coordinate and meet all incidental expenses of the team during the study and for report preparation. The report and the proposals shall be filed within a period of four weeks. **List on 14.02.2017.***

12. The team, constituted in terms of consultative meeting held on 29.11.2016 headed by Dr. Kalyan Rudra, Chairman, State PCB, filed their report entitled "Report on impact of constructions built between Millennium Park and Nimtala Ghat on the Hugli river" which is part of this order (Annexure-A). The report was circulated among the respondents and the applicant to consider and file suggestion, if any.

13. Mr. Subhas Datta, applicant filed an affidavit taking exception to the observation of the experts in the report,

particularly on the definition of river-bank and river-bed, construction of Nimtala ghat etc. He has also referred to the affidavits filed by the Chief Secretary, Govt. of West Bengal on 10.04.2015, by Chief Executive Officer, KMDA on 10.04.2015, by Chairman, by Chairman, KOPT on 10.04.2015 and also the Hydrodynamic Study Report prepared by Jadavpur University and filed by KMC, where there are admission of construction inside the river. This affidavit of the applicant was also forwarded to Dr. Kalyan Rudra for consideration of the committee and submit their comments, if any, on the aspects pointed out by the applicant.

14. The committee met on 13th June, 2017 to consider and comment on the affidavit filed by the applicant as a response to the report of the committee. The comments offered by the committee reads as follows:-

“Observations and Comments of the Committee

In compliance with the direction dated 11th May 2017 of the Hon’ble National Green Tribunal (Eastern Zone), a meeting of the committee constituted by the Hon’ble bench vide order dated 29th Nov. 2016 was held on 13th June 2017 at the Paribesh Bhavan.

The committee was directed to address 4 (four) queries raised by the Tribunal as noted below:-

- i. To identify if the walkway/pathway constructed adjacent to a stretch of Ganges near Manor Floatel hotel is on the river bed*
- ii. To investigate if such construction is hydraulically significant*
- iii. To identify if the construction of Nimtala Crematorium and other constructions near it are on the river bed*
- iv. To investigate if such constructions are hydraulically significant*

2. The applicant had debated on the definition of ‘bank’ and ‘bed’ and refused to accept definition suggested by the committee. The committee opined that the area between high and low tide lines of a river is generally

called 'river bank' and the area that remains perpetually under water between low water lines of both banks is called 'river bed'. In his turn the applicant noted that "it is not expected that the experts should give general comments about the definition of 'river bank' and 'river-bed'."

3. The committee is concerned about the tidally influenced Hooghly river where there arises several occasions annually when the two bank roads, the Strands Road on the eastern side and the Foreshore Road on the western side get submerged by the afflux of the equinoctial tides. The fluvial geomorphology distinctly defines (1) river bed, (2) inter tidal space, (3) river bank, and (4) flood plain. Going by the definition of river bed put forward by the applicant in the penultimate sentence in para-6 of his affidavit, "rather river bed is the area where water in the river rests whether it is high tide or low tide", question arises, should these roads also be construed as river beds? The definition suggested by the applicant therefore is absolutely unacceptable particularly in case of river Hooghly.

4. The applicant himself quoted from six dictionaries, which are treated as dictionaries of English language and does not offer technical/scientific/limnological definitions of the same. Four of these dictionaries, quoted by the applicant, described the bank as 'edge' of a river where water and land touches each other. Rest two dictionaries described the bank as slope bordering of a river or slopped side of a river acting as barriers. Generally, these definitions are applicable to the non-tidal rivers.

5. The committee adequately addressed the questions raised by the Hon'ble National Green Tribunal to the best of its ability. The super imposed cross-sectional profiles at six identified locations based on hydrographic survey carried out with latest available instruments have proved beyond doubt that constructions on inter tidal zones beyond the river bed did not significantly alter the hydrological regime of the river. This observation has not been denied by the applicant.

6. It has been observed from the analytical study of the said stretches of river from KoPT's archived records for the last two decades (1997 to 2015) that there has not been any hydrological degradation of the river over the years.

7. The applicant took up the issue of loss of biodiversity in the stretch of the river under consideration without any substantial data and evidence. However as the issue was not identified by the Hon'ble court within the terms of reference of the committee, biodiversity issues was not taken into consideration.

8. *The applicant has expressed his doubt about the ability of the committee members to submit unbiased as all the members excepting Prof. Asish Majumdar have been appointed by the Government. The point to be stressed here is that all the members of this committee have been nominated by the Hon'ble Tribunal. The committee does not wish to discuss this issue any more. It can only be stated that the members of the committee are committed to science and dealt the issue with apt integrity without any bias. "*

15. While undertaking the study, the Expert Committee constituted by the Tribunal, compared the present site conditions with the recent report prepared by the Hydraulic Study Department of Kolkata Port Trust (KoPT) as well as with the final report on Hydrodynamic study for the riverfront project of Kolkata Municipal Corporation by the Jadavpur University in July 2013, which has also been mentioned in the affidavit filed by Kolkata Municipal Corporation in response to the report of the Expert Committee. Therefore, there is no reason left for us to accept the contention of the applicant against the report of the Expert Committee. The answers to all our queries, four in number, are more or less in negative as per the report of the committee, i.e., the construction of Floatel pathway and Nimtala crematorium are on the bank slope, not in river bed and such constructions have no significant hydraulical impact. However, it is important that the following recommendation of the Expert Committee on prevention of erosion near the Millennium Park is complied by the appropriate authority within a reasonable time frame.

“Recommendation:-

- a. *In a stretch of around 800m length along the Millennium Park in between Fairley Place Jetty and one signboard of Coal India Ltd. in the downstream, that the decades old bank protection work mostly in the form of brick pitching with cement mortar works,*

have subsided, crumbled and dislodged at some places. Photographs taken in this zone (see fig. 5A and 5B) are inserted. This phenomenon may not have any bearing with the Millennium Park at all, and the probable reasons of damages are stated below:

- I. Development of excessive pore pressure due to hydraulic head difference of groundwater and river water, particularly during low tide condition, due to blockage of seepage path and clogging of filter.*
- II. Free movement of very fine soil particles (mostly clays silt) from the bank slope protected by pitching, in absence of proper functioning of filter.*
- III. Dragging/suction force due to tidal wave run up action during astronomical high tides.*

Such erosion may not lead to imminent collapse/caving of bank and road atop, due to the unique nature of fine bank material particles, i.e. mostly clayey site to silty clay having sufficient cohesion. However, it is suggested to take up a proper rehabilitation scheme in this stretch with suitable extension in the upstream and downstream, covering more or less 1.0 km length.

The digital bathymetric model (Figure 7) also evinces the fact that flow concentration has taken place near the left bank surrounding the Millennium Park area. On the contrary the bank at Nimtala ghat records uninterrupted accretion and the bank tends to shift slowly westward.”

16. Therefore, we direct that -

- 1) the KoPT, being the custodian of the land on shores within 45.7 m of High Water Mark at spring tide and the competent authority having good repository of hydro- morphological data of river Hoogli in this stretch of river with required expertise, to take up the rehabilitation work near Millennium Park covering around 1 Km, both upstream &

downstream combined to prevent further erosion and complete it within one year. A compliance report shall be filed by KoPT in the registry of the Tribunal before 30th September, 2018.

2) Any proposal on construction, beautification or other activities in the area under the jurisdiction of KoPT, which do not fall under the ambit of Environmental Impact Assessment Notification, 2006, shall not be permitted by KoPT unless:

(i) A study on environmental impact of such activities is undertaken by the project proponent followed by a plan on environmental management of any negative impact of such activities on river ecosystem.

(ii) The report on environment impact study and environmental management plan is considered by an expert committee of at least three experts constituted by KoPT and

(iii) The Expert Committee recommends in favour of the project.

17. With the above directions, we dispose the application.

We record our appreciation to Dr. Kalyan Rudra and his team of

experts for providing proper assistance to us in the adjudication of the matter.

No order as to costs.



.....
Mr. Justice S.P. Wangdi, JM

.....
Prof. (Dr) P.C. Mishra, EM

Kolkata

Date: 13.09.2017

ANNEXURE-A

NGT

Report on impact of constructions built between Millennium park and Nimtala ghat on the Hugli river.



Submitted to

Report of the Expert Committee

constituted by the

Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata

Original Application No. No.08/2015/EZ

Subhas Datta

-Vs.-

State of West Bengal & Ors.

[Kalyan Rudra]

Chairman

West Bengal Pollution Control Board

[A. Mazumdar]

Professor

Jadavpur University

[D. Sengupta]

Jt. Secretary, Irrigation & Waterways
Department, GoWB

NGT

[K. Chakraborty]

Deputy Chief Hydraulic Engineer

Kolkata Port Trust

[A. Chakraborty]

Director General

Kolkata Metropolitan Development
Authority

Report on impact of constructions built between Millennium park and Nimtala ghat on the Hugli river.

Pursuant to the discussions held in the consultative meeting relating to O.A. No.08/2015/EZ, convened by Hon'ble Mr. Justice S.P. Wangdi and Hon'ble Prof. (Dr.) P.C. Mishra, Expert Member of the National Green Tribunal (NGT) / East Zone Bench (EZB), on 29th November 2016 followed by an order of even date, a site visit along riverine route in Hugli, from Police Jetty near Prinsep Ghat upto Bally Khal, was undertaken by the team identified by the Hon'ble Court vide the order mentioned above.

Objective of the visit was to respond to the following four queries that the Hon'ble Court has consistently been raising.

- Q1. To identify if the walkway/pathway constructed adjacent to a stretch of river Ganges near Manor Floatel hotel is on the river bed
- Q2. To investigate if such construction is hydraulically significant
- Q3. To identify if the construction of Nimtala Crematorium and other constructions near it are on the river bed
- Q4. To investigate if such constructions are hydraulically significant

The Hugli is a tidal river and inherently meandering in nature. Notably concave bank of a river is prone to erosion and that of convex side experiences deposition. About 1.2 km stretch of the Hugli River covering the Millennium Park area and the Nimtola Ghat area has been examined as shown in Fig.1 and Fig.2. The Millennium Park is situated on the left bank (Eastern Side) of the Hugli River at a distance of about 500m downstream of the Rabindra setu (Haora Bridge). On the other hand, the Nimtola ghat is situated within a kilometer upstream of the Rabindra setu, also on the left bank. It is evident from fig.1 and

fig.2 that the curvatures of the river banks respectively are concave for the Millennium park area and convex for the Nimtala ghat. As a result, the main flow of the river strikes the bank near the Millennium park causing scouring of bed and bank and the Nimtala ghat area, records uninterrupted deposition. Both the processes of erosion and deposition are governed by tidal fluctuation to tune of more than five metres. The cross-sections drawn across river at both the places reveal the nature of bank slope and the *thalweg* (i.e deepest part in the river, see fig.1).

It is important to note that area between high and low-tide lines is generally called ‘river-bank’ and the area that remains perpetually under water between low-water lines of both banks is called ‘river-bed’.

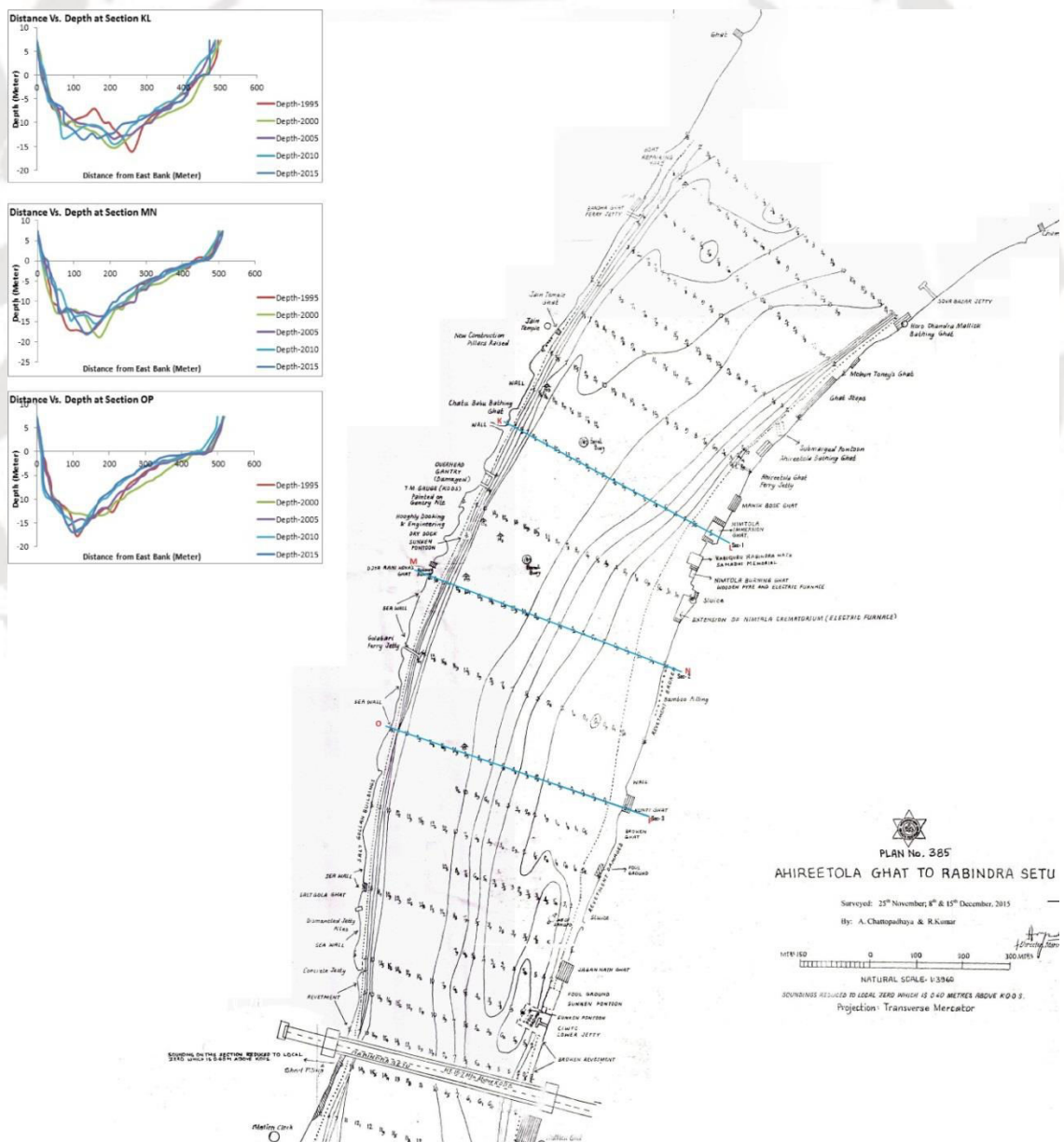


Fig. 1: The map showing the Hugli River between Ahiritola Ghat and Rabindra Setu and the superimposed cross-sections showing the underwater bed and bank slopes. Depth profiles at different sections are provided in large plots on next page in Figure 1A.

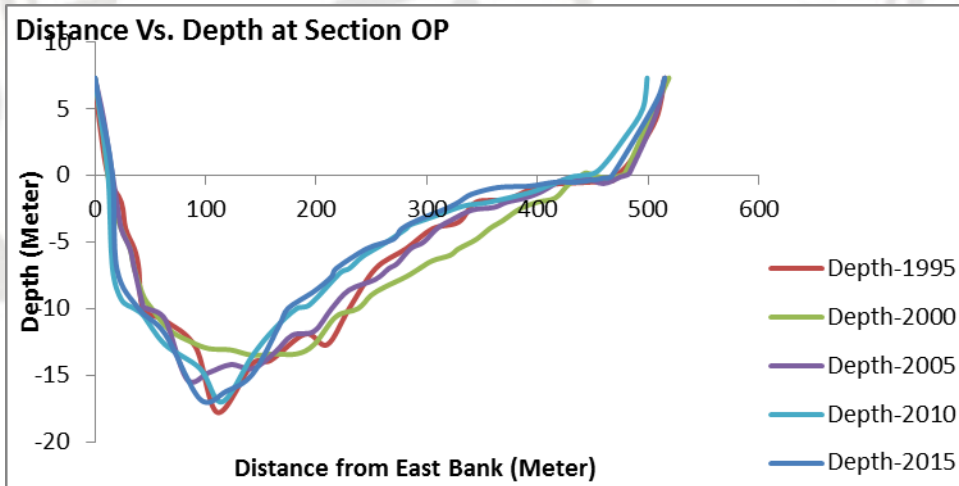
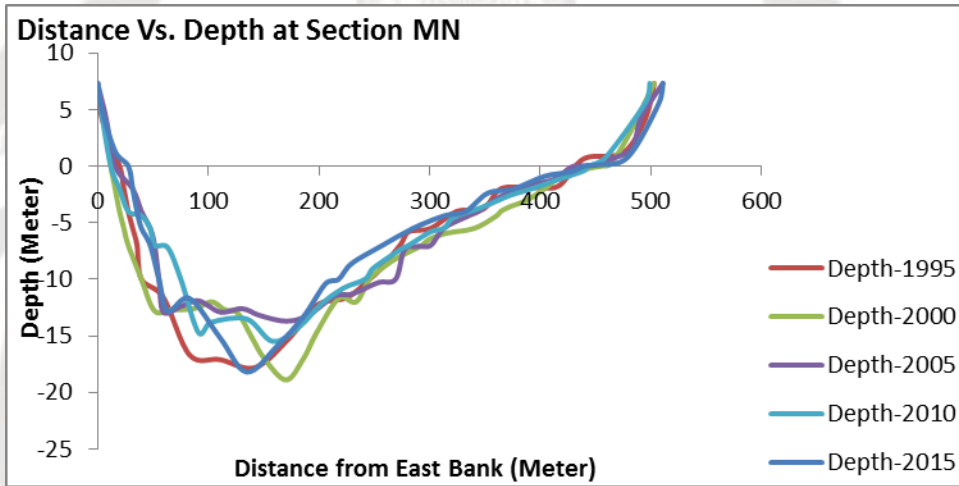
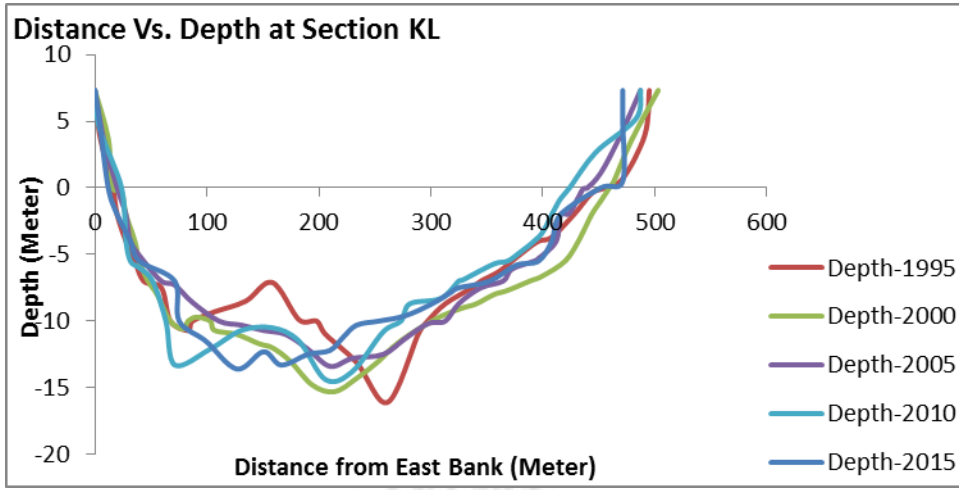


Fig. 1A

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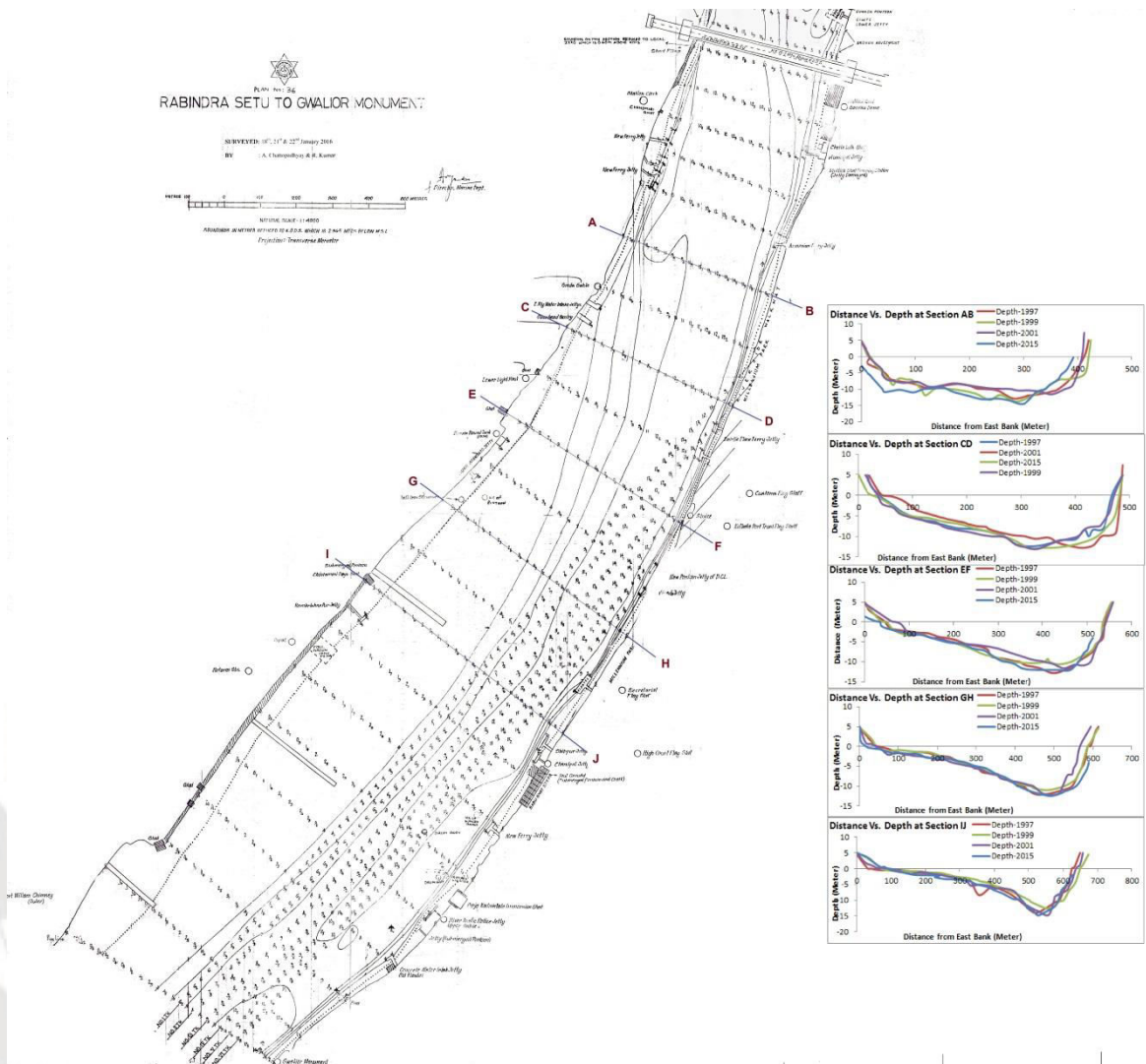


Fig.2. The map showing the Hugli river between Rabindra Setu to Millenium Park and the superimposed cross-sections showing the underwater bed and bank slopes. Depth profiles at different sections are provided in large plots on next page in Figure 2A.

Year	Area (10⁵ m²)	Average Depth (m)	Volume (10⁶ m³)
1997	7.2	6.76	4.9
1999	7.3	7.32	5.3
2001	7.2	7.43	5.4
2015	7.5	7.74	5.8

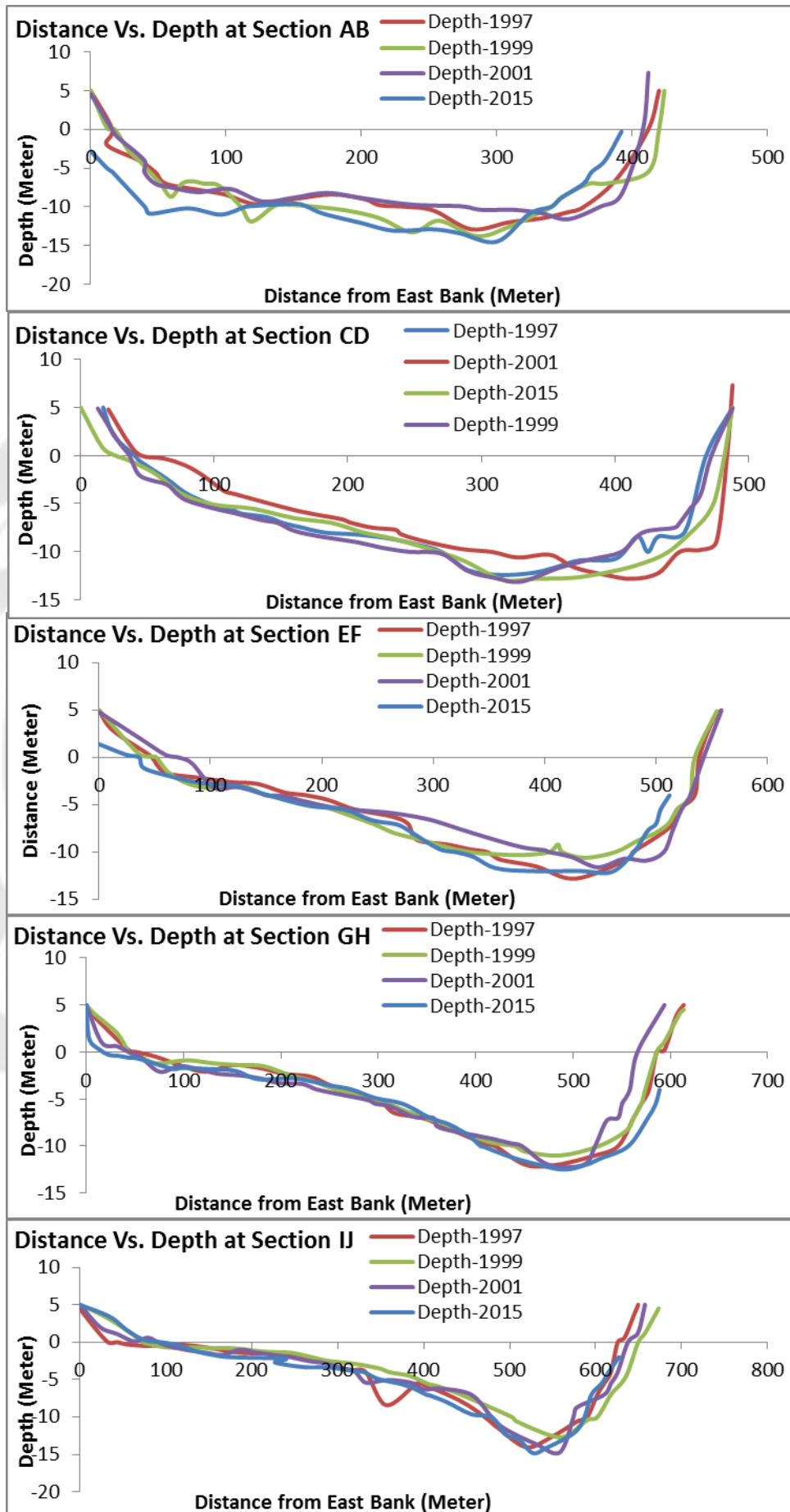


Fig. 2A

OBSERVATIONS:

1. To appreciate the impacts of structures under questions, the timing of the journey was synchronized with that of the low tide in the river, when maximum portions of the riverbank

slope was exposed due to lowering of water level in the river. Existing conditions of the riverbank in the entire stretch of journey, in general, and at the critical locations, e.g. Millennium Park, pathway to access Manor Floatel and R.N. Tagore Garden adjoining Nimtala Crematorium, in particular, were minutely observed.

2. Present site conditions were further compared with the recent report prepared by the Hydraulic Study Department, Kolkata Port Trust (KoPT) (a copy of which was since handed over to the Hon'ble Judge and Expert Member of NGT (EB) on 29th November 2016) and also with the Final Report on Hydrodynamic Study for the riverfront project of Kolkata Municipal Corporation (KMC), submitted by Jadavpur University in July, 2013.

After having threadbare discussions on the relevant issues based on the site visit and available documents / surveyed data, following views / recommendations are offered;

- (a) Construction of structures at all the three critical locations stated in Para-2 above has been made on the bank slope and not in riverbed. However, such structures being well within the inter-tidal zone (i.e. zone within low tide and high tide), may be termed as interventions within the waterway corresponding to mean tide level and further above. It may be mentioned here that similar interventions, in the form of water-intake structures, jetties for embarking to and disembarking from passenger launches, bathing ghats do exist in the said area, some of which may be decades or even century old.



Fig.4. The walk way to Floatel also built on inter-tidal bank slope.



- (b) There was absolutely no visible impact of these interventions, mainly in the form of pile cum pier, supporting slab at top at the three critical reaches, as well as in the form of various other water intake structures, jetties, bathing ghats, on the sloping profile of bank. It has been observed that neither there is excessive deposition along bank slope to the extent visible, nor any erosion. The bank slope was rather very gentle and flat, as normally seen in case of regime condition of a river, having stable bank.
- (c) It may be noted that the said structure near Manor Floated Hotel was built by the KMDA. Kolkata Port Trust granted no objection to the Urban Development Department, GoWB, for the said construction. It reveals from the superimposed cross sections near Millennium Park based on surveyed data of KoPT during 1997, 1999, 2001 and 2016 (see Fig.2A) that there has not been any appreciable change in area or volume (cubature, see Table 1) of the river during 1997 to 2016 (19 years). Overall river bathymetry also remains more or less unaltered. Deep channel of the river continues to flow closer to left bank (Kolkata side) in the downstream of Rabindra Setu, while such flow pattern in the upstream of Rabindra Setu is on the opposite side, i.e. the deep channel is closer to right bank (Haora side).
- (d) However, it has been observed in a stretch of around 800m length along the Millennium Park in between Fairley Place Jetty and one signboard of Coal India Ltd. in the downstream, that the decades old bank protection work mostly in the form of brick pitching with cement mortar works, have subsided, crumbled and dislodged at some places. Photographs taken in this zone (see fig.5A and 5B.) are inserted. This phenomenon may not have any bearing with the Millennium Park at all, and the probable reasons of damages are stated below:



Fig.5A. Subsided, crumbled and dislodged bank at Millennium Park.

Fig.5B. Subsided, crumbled and dislodged bank at Millennium Park.

- (i) Development of excessive pore pressure due to hydraulic head difference of groundwater and river water, particularly during low tide condition, due to blockage of seepage path and clogging of filter.
- (ii) Free movement of very fine soil particles (mostly clayey silt) from the bank slope protected by pitching, in absence of proper functioning of filter.

- (iii) Dragging / suction force due to tidal wave run up action during astronomical high tides.
- (e) Such erosion may not lead to imminent collapse / caving of bank and road atop, due to the unique nature of fine bank material particles, i.e. mostly clayey site to silty clay having sufficient cohesion. However, it is suggested to take up a proper rehabilitation scheme in this stretch with suitable extension in the upstream and downstream, covering more or less 1.0 km length.

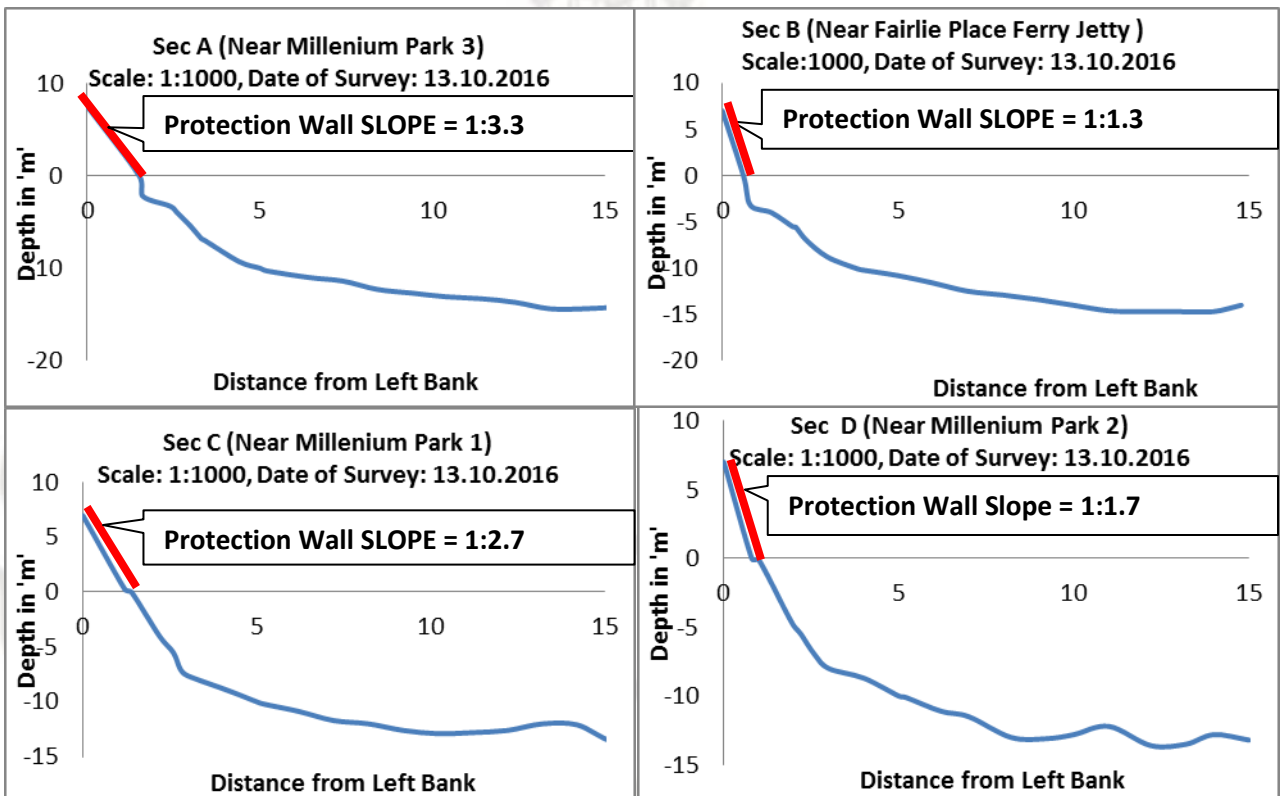


Figure 6: Slopes of the river bank and the constructed bank protection walls surrounding Millennium Park area.

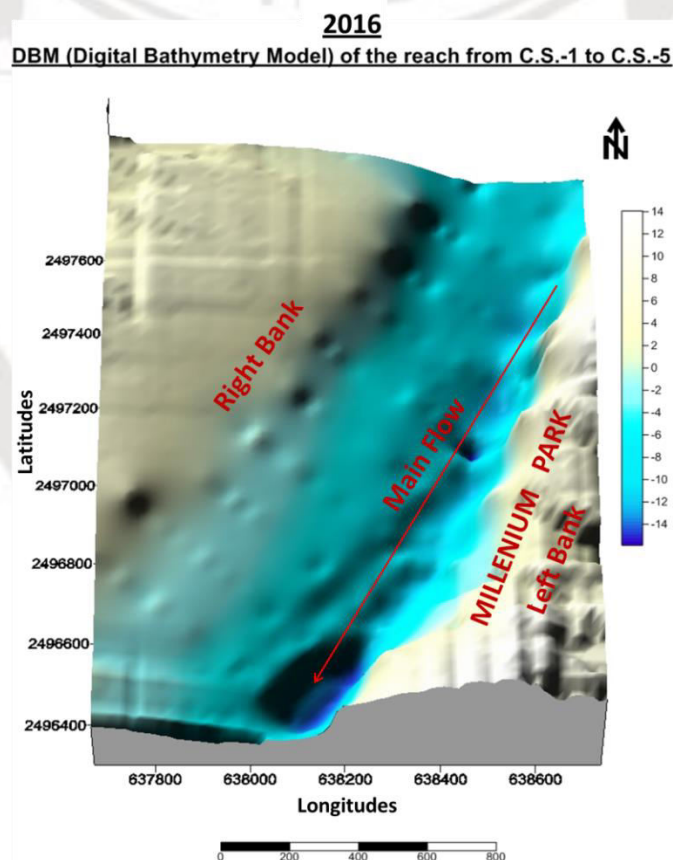


Fig. 7 Digital Bathymetry showing underwater topography

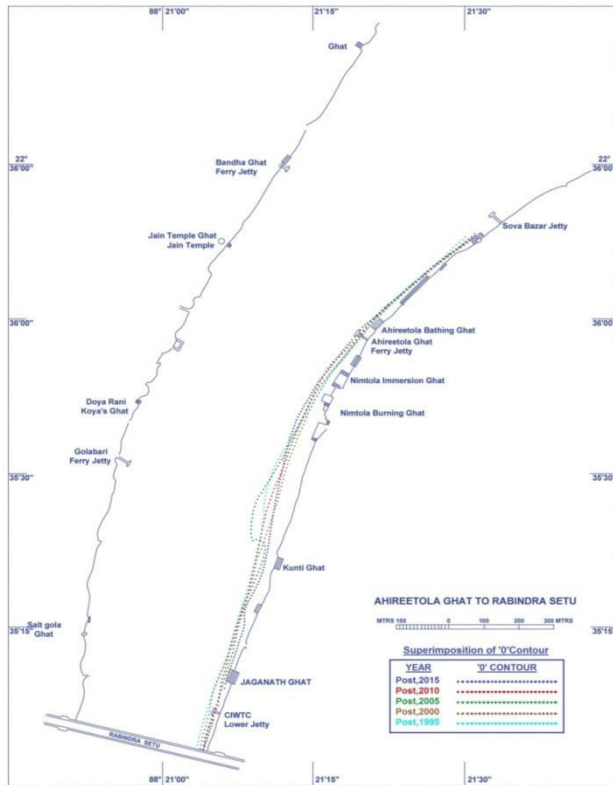


Figure 9: Super-imposition of "0" contour showing that the submerged sand body (point bar) near Nimtala Ghat region was developed

the custodian of the land on shores within 45.7m of High Water Mark at spring tide should cooperate as they are the competent authority to accord permission for any construction in the said foreshore area within the aforesaid land limit. Moreover, they have a good repository of hydro-morphological data of river Hugli in this stretch and also required technical expertise to take up such works.

- (2) This committee believes that the said rehabilitation measure (using conventional methods) may involve an expenditure approximately Rs.4.5 crore covering a length of around 1.0 km.

Concluding Remarks:

A tidal river like Hugli needs wider space along both banks beyond its low-tide limit as the river swells diurnally and seasonally. But that space has already been encroached since the colonial period. Unfortunately many sporadic encroachments into the inter-tidal space along the entire length of river continue till date. Such activities, except construction of water intake and Ferry jetty should be stopped immediately to allow the river to maintain its dynamic equilibrium.

The digital bathymetric model (Figure 7) also evinces the fact that flow concentration has taken place near the left bank surrounding the Millennium Park area. On the contrary the bank at Nimtala ghat records uninterrupted accretion and the bank tends to shift slowly westward. (See Fig.9).

Rehabilitation measures:

- (1) Honourable Court may direct appropriate authority to take up the rehabilitation measures. Considering the expertise and experience in river training works (bank revetment / protection), the Irrigation and Water Ways Directorate, GoWB may be consulted for providing necessary technical guidance to the implementing authority. KoPT, being



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