



National Shipping Board

भारतसरकार/ GOVERNMENT OF INDIA
पोतपरिवहनमंत्रालय / MINISTRY OF SHIPPING
राष्ट्रीयनौवहनबोर्ड / NATIONAL SHIPPING BOARD

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“इंपीरियल बिल्डिंग”, दूसरी मंजिल / “IMPERIAL BUILDING”, 2ND FLOOR

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F. No. NSB (07)/2018

Date - 04.07.2018

शीघ्र डाक
SPEED POST

To,
All Members
(As per enclosed list)

11 JUL 2018

Sub.: Record note of the 131st meeting of National Shipping Board held
on 30.05.2018 at Mumbai - reg.

Sir,

Enclosed herewith please find the record note of 131st meeting of National Shipping Board held at Mumbai on 30.05.2018, which is duly approved by the Chairman, National Shipping Board [NSB].

Yours faithfully,


(Capt. K.P. Jayakumar)
Secretary, NSB

Copy to - The Chairman, National Shipping Board [NSB] - for information.

RECORD NOTE OF THE 131ST MEETING OF THE NATIONAL SHIPPING BOARD
HELD ON 30.05.2018 AT MUMBAI.

The 131st Meeting of the National Shipping Board [NSB] was held under the Chairmanship of Shri Pradeep Trimbak Rawat, Chairman, National Shipping Board on 30th May, 2018 at Mumbai. The list of participants is enclosed as Annexure - 1.

1. Beginning the meeting, Shri Pradeep Trimbak Rawat, Chairman, NSB welcomed Members of NSB to the first meeting of the new Board after it was constituted, which is the 131st meeting of NSB.

1.1 After a round of introductions, Chairman, informed the members that the meeting of the Board was not held earlier as he was awaiting the formation of the full board with the appointment of the Honourable Members of Parliament to the Board. However, due to the issue pertaining to office of profit being yet to be resolved, Hon'ble MPs have not yet been nominated to the Board. In view of the same, Chairman informed the members that he had discussed the matter with the Hon'ble Minister of Shipping and taken the concurrence of the Hon'ble Minister before convening the meeting of the new Board.

1.2 Chairman NSB, further informed the members of the shifting of the office of the NSB, from within the Ministry at New Delhi to Mumbai. He also informed that presently, the NSB office is temporarily operating from a room at 2nd Floor, Imperial Chamber, Ballard Pier, Mumbai 400 001.

1.3 The Chairman also informed the members that a permanent office for the National Shipping Board had been identified at 3rd Floor, Nirman Bhavan, Mumbai – a building of the Mumbai Port Trust. He further informed the members that request was also made to Ministry to have the building renovated and furnished by the Mumbai Port Trust, before handing over the premises to the NSB.

1.4 Chairman thereafter instructed the Secretary to continue with the listed Agenda.

2. Confirmation of the Record Note of the 130th Meeting of NSB

The Secretary, NSB informed members that the Record Note of the 130th meeting was circulated to all members earlier and no comments were received from the members. In view of the same, the Record Note of the 130th meeting of the NSB was confirmed by the members.

3 Information on proposals forwarded by the Secretariat to Ministry since reconstitution of the new Board -

3.1 Review of procedure to ensure effective promulgation of warnings in respect of imminent dangers and impending calamities -

3.1.1 The Secretary NSB, made a Power Point Presentation regarding the proposal to the members. In the presentation, Secretary informed members about cyclone Ockhi that occurred in November-December, 2017 and the loss of precious lives during the cyclone. This indicated that there was scope for further improvement in the process of dissemination of information to the people likely to be affected by such occurrences, especially, in the unorganized and traditional sectors like fishing and sailing vessels.

3.1.2 The proposal suggested that organizations having information regarding formation of such dangers like the India Meteorological Department (IMD), Indian National Centre for Ocean Information Services (INCOIS) etc. needs to forward such information immediately on its detection directly to Radio and TV stations and State Governments for immediate dissemination of information to the public.

3.1.3 The proposal also suggested that Ministry of Shipping may consider taking up the matter with Ministry of Earth Sciences, Ministry of Information and Broadcasting and other concerned Ministries so that the existing standard operating procedures (SoPs) could be suitably modified by the concerned organizations under their control, to ensure that information regarding imminent dangers and impending calamities are disseminated to the public within the shortest possible time.

3.1.4 In this matter, representative of the Ministry of Shipping informed the members that the issue had already been taken up by the Department of Disaster Management and duplication by the Ministry of Shipping may not be necessary.

3.2 Article 364 of the Constitution - Suggestion to consider invoking its provision to facilitate projects in the port sector-

3.2.1 Secretary NSB, informed members that during the interaction of the Chairman, NSB with various stakeholders, delays in obtaining clearances for projects in the ports sector [like dry dock etc.] was indicated to be a cause of major concern to the stakeholders. Since several stake-holders raised the issue, it appeared that there was a systemic problem that needed to be addressed. Accordingly, Chairman directed that a solution be found for addressing the issue.

3.2.2 The initial approach was to examine the statutes to see if a solution could be found to address such issues. During examination of the statutes, it was observed that Constitution of India has a special provision for major ports at Article 364 of the Constitution. It was therefore proposed to the Ministry that the provision of the said Article 364 may be considered for invoking to facilitate projects in the ports sector.

3.2.3 The matter was discussed and members expressed their view in the matter. Some of the members were of the view that it may not be appropriate to obtain blanket exemptions on environmental matters. A suggestion was also made that ports could obtain clearances for projects based on a master plan well in advance.

3.2.4 It was the general view that since the matter was already being look into by the Ministry, no further action was required by NSB.

3.3 Policy proposal for making India Bunkering Hub -

3.3.1 The Secretary, NSB made a Power Point Presentation regarding the proposal to the members. During the presentation, Secretary NSB, informed the members that even though bunkering is a multi-billion-dollar industry world-wide, India's contribution was only 0.5% of this industry. He further informed that Chairman, NSB had held extensive deliberations with various stake holders to understand the issues and suggest policy measures to overcome the problem. During such interactions, the issues pertaining to taxation, custom regulations, port tariff and infrastructure matters [like dedicated berths/ pipelines/ barges/ storage tanks etc.] appeared to be major issues that hindered the growth of bunkering industry in India.

3.3.2 After extensive interactions with stake holders, the NSB Secretariat forwarded a policy proposal to the Ministry for making India a Bunkering Hub of the region. The proposal addressed the major issues without requiring any changes to the taxation policy, or the procedures of the customs department by proposing the notifying of 'Designated Areas' at sea for bunkering and other associated activities which remains outside customs limits but within the Indian Exclusive Economic Zone [EEZ].

3.3.3 The proposal also contained suggestions to make the existing practice of providing bunkers within port limits more effective. However, this proposal required changes to the existing customs regulations as well as the reduction in the rate of GST from the existing 5% to 0%. The suggestion for reducing GST for bunkers was due to the fact that bunkers are generally provided to ships operating internationally, due to which, it could be treated at par with export of cargo. The proposal also suggested extending this benefit of zero GST to coastal vessels to encourage modal shift of cargo.

3.3.4 The matter was discussed extensively by the members. The need to ensure security measures and pollution presentation measures in the proposed 'Designated Area' was stressed. Members also suggested that a legal and institutional framework may need to be developed having strong measures for settling disputes for this to become successful.

3.3.5 After detailed deliberations following was decided:

- a. Members would submit soft copy of their suggestions made during the deliberations to the Secretariat within one week of the meeting.
- b. Secretariat was to incorporate the suggestions of the members and re-circulate the revised proposal to all members.
- c. Secretariat was to also forward all other material received on the matter from stakeholders to members for information.
- d. Separate meeting of the NSB was to be held to discuss and finalize the matter.

[Action: All Members and NSB Secretariat]

3.4 Suggestions to ensure maintenance of high quality of Maritime Training Institutes –

3.4.1 To ensure the continued maintenance of high quality of Maritime Training Institutes [MTIs], NSB Secretariat had made a suggestion to the Ministry to consider modifying the current mode of payment being made for the Comprehensive Inspection Programme. Currently, MTIs make payment directly to the Recognised Organization [RO] which could result in conflict of interest for the RO carrying out the inspection. It was suggested that instead of MTI's making payment directly to the RO, the payment could be made to a separate fund under the control of the Directorate General of Shipping [DGS] and payment for the inspection can be made from the fund by the DGS. It was also suggested in the proposal that the selection of the RO for inspections should also be done by the DGS instead of the MTI. The proposal further suggested the recording of such inspection and uploading the inspection video in the public domain.



3.4.2 During the discussion, the Director General of Shipping clarified that substantial steps have already been taken by the DGS in the matter and several Maritime Training Institutes [MTI] have already been shut-down. The Director General of Shipping also informed that one of the MTI's had filed a contempt petition in one of the High Courts and the matter is coming up for hearing in the Court shortly.

3.4.3 The Director General of Shipping further informed members that the use of the services of ROs was necessitated due to the shortage of Government Surveyors earlier. It was also observed that the MTIs preferred having their premises inspected by the ROs rather than Govt. Surveyors. She further informed members that DGS has made the system online to bring about transparency in the process. As regards the video recording of inspections, the practicality of the suggestion would need to be assessed as the stakeholders may not have the required patience to view the playback of the entire inspection from the recording.

3.4.4 After detailed deliberation it was decided that necessary action was already being initiated by the Directorate General of Shipping in the matter and no further action would be necessary in the matter.

4 Removal of 5% IGST on Indian flag vessels imported into India by Indian Companies-

4.1 Mr. Anil Devli, member representing Indian National Shipowners' Association [INSA] informed members of the disparity in taxation between Indian flag vessel (imported into India) entering Indian waters for the first time being liable to pay 5% IGST of the value of the vessel compared to a foreign flag vessel entering India for the first time not requiring to pay such tax.

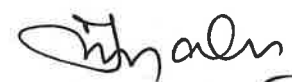
4.2 Mr. Devli further informed members that INSA appears to have found a solution regarding the issue as the Director General of Shipping had arranged a meeting of Shipowner's with the Revenue Secretary. Ministry of Finance has subsequently suggested a solution and INSA was hopeful of this being resolved, due to which no further action was considered necessary from the NSB at this stage.

5 Need for an independent 'Scale of Rates' (SoR) for coastal shipping-

5.1 Mr. Devli informed members of the need for an independent 'Scale of Rates' at Indian Ports based on rupee denominated rates to promote coastal shipping. He further informed that the rate should be determined considering the idle berths in the port which remains unutilised, as it would encourage better utilisation of the resources of the port and also help in modal shift of cargo.

5.2 After extensive deliberations in the matter it was decided that INSA would submit a comprehensive proposal to NSB for consideration during the next meeting.

[Action: INSA]



6 Loss of jobs on merchant / cruise ships due to Indian seafarers deserting vessels in foreign ports-

3.1 Shri Abdulgani Serang, representative of National Union of Seafarers of India [NUSI] informed the members about the possible loss of jobs for Indian seafarers as some Indian seafarers' have deserted their vessels in foreign ports, particularly USA and Canada. Such act of the Indian seafarer results in shipping companies having to pay large fine to the authorities resulting in shipping companies becoming reluctant to employ Indian seafarers.

6.2 The matter was discussed extensively. All members were of the view that such action on part of few seafarers could impact the employability of Indian seafarers and therefore required action to be taken. After detailed deliberation, the following was decided:

6.2.1 The master of the ship from which an Indian seafarer deserts the vessel should immediately inform the local Indian Embassy giving details of the seafarer along with the details of his passport.

6.2.2 The Ministry of External Affairs / local Indian Embassy could consider freezing the passport of such seafarers.

6.2.3 NUSI, INSA and MUI may consider jointly putting up a paper in the International Labour Organization to declare the action of seafarers deserting ships in foreign ports to be considered as a criminal act.

6.2.4 Directorate General of Shipping could consider cancelling the CDC of such seafarer.

6.2.5 Ministry of Shipping to consider taking up the matter with Ministry of External Affairs as recommended at para 6.2.2.

6.2.6 Directorate General Shipping to consider issuing a notice cautioning all seafarers of the stringent action that could be taken if Indian seafarers desert vessels in foreign ports.

[Action: MoS, DGS, NUSI, INSA & MUI]

7 Transparency in the costs associated with imports of LCL Containers.

7.1 Shri Piyush Sinha, Member NSB, informed members that an importer of LCL container in India pays very high charges due to cartelisation by shipping lines and forwarders. Mr. Sinha clarified that this was due to the fact that while other countries like USA had strict registration / licensing regulations for shipping lines, forwarders and others involved in the logistics of import and export shipments India did not have any laws to regulate, or control shipping lines and forwarders.

7.2 Mr. Sinha further clarified that in India, other entities of the logistics chain (imports and exports) such as CFSs, Customs Brokers etc are suitably regulated by regulations such as the CBLR (Customs Brokers Licensing Regulations) and the HCCAR (Handling of Cargo in Customs Areas Regulations) and even exporters and importers of cargo are registered by the DGFT with their IEC code numbers. However, for shipping lines, carriers and forwarders [who actually control all cargo coming to India], there are no laws to regulate their activities in India.

7.3 To obtain cargo in international load ports, shipping lines face immense competition, due to which they offer very low freight rates. In some instances, zero or even minus freight rates are offered to the foreign shippers. Such rates are offered because the shipping lines and forwarders are secure in the knowledge that once the shipment reaches India, they can demand any amount (even logic defying huge amounts) from the importer for issuance of the 'Delivery Order' without which the importer cannot take delivery of the shipment.

7.4 Mr. Sinha further informed that we have a system now prevalent in all the Major Ports in India that the CFS to which the container moves after discharge at the port depends on the shipping line for business making the CFSs totally dependent on the shipping lines for their business. This results in the CFSs being forced to offer "rebates" "or" "nomination premium" "to the shipping lines" which is recovered by the CFS from the importer of cargo. With the competition amongst the CFSs heating up to get business from the shipping lines and faced with huge project and establishment costs, this "rebate/nomination premium" has become very high. Hence the cost of this nexus between the shipping line and the CFS has to be borne by the importer and alternately thereafter by the Indian public.

7.5 The Customs Authorities have tried to help the trade by issuing a facility notice for facilitating importers choice of CFS but the purpose is defeated by the shipping lines imposing the rebate / nomination premium at the time of issue of Delivery Order and /or by placing impractical conditions for the same.

7.6 Mr. Sinha further informed that when trade takes up this issue with authorities they express their helplessness due to lack of regulatory framework.

7.7 The matter was deliberated extensively and the need for corrective action to address the issue was considered to be essential. However, lack of regulatory framework was considered a deterrent that required redressal. Shri Sinha informed the members that a report was prepared by the Indian Institute of Foreign Trade [IIFT] for NSB earlier. It was therefore suggested that in addition to the report of IIFT and the earlier draft Shipping Trade Practice Bill, the practice being followed in Sri Lanka and other countries could be considered for finding a solution in the matter. Views were also expressed that this matter could also be taken up with the Competition Commission of India.

7.8 After discussions, it was decided that the NSB Secretariat should collate all the information available in this matter for NSB to look into it subsequently.

[Action: NSB Secretariat]

8 Inclusion of coastal communities – a key to Sagarmala's success; Nationalisation of minor ports and encouragement for small ship owners:

8.1 Mr. D Cruz made a statement regarding inclusion of coastal communities in the sagarmala project as well as the nationalization of ports and encouragement to small ship owners. Copy of his statement is enclosed as Annexure – 2.

8.2 During the discussion in the matter, Chairman clarified that Coastal Community Development was one of the key pillars of the sagarmala project which was to be done by promoting sustainable development of coastal communities through skill development & livelihood generation activities; fisheries development; coastal tourism etc.



8.3 The possibility of converting wooden sailing boats to steel /fibre boats was also discussed as also the development and modernisation of old British era minor ports in India. The discussion also clarified that vessels of primitive built enjoy several exemptions from regulation and converting them to modern ships of steel /fibre would deprive them of the existing advantage.

9 Denial of shore leave to Indian Seafarers in Indian Ports –

9.1 Shri Abdulgani Serang, informed members about the international obligation of India to provide shore leave to visiting seafarer at Indian ports. Despite the same, many ports in India denied shore leave to visiting seafarers.

9.2 After extensive deliberations it was decided that the NUSI, MUI and INSA would provide port specific information regarding the status of providing shore leave to seafarers, so that the matter could be considered during the next meeting.

[Action: MUI, NUSI & INSA]

10 Policy suggestion for promoting use of sailing vessels –

10.1 The representative of 'Sailing Vessel Federation' made a power point presentation regarding policy suggestions for promoting use of sailing vessels. The presentation also suggested that Indian sailing vessel industry should be revived as a part of cultural heritage & the home ports of sailing vessels could be considered for development as heritage ports.

10.2 He further informed the members that the trade cycle of sailing vessels included carrying of cargo between India and the countries of the Gulf region with the cargo of 'dates' being reserved for such vessels in the past. However, after the removal of reservation of dates for sailing vessels, this sector was facing difficulties. He suggested that cargo should continue to be reserved to the sailing vessel industry. He also suggested the culture heritage of the sailing vessel industry and the ports need to be preserved.

10.3 The matter was discussed Members were of the view that sailing vessels, instead of simply trying to maintain cultural heritage should adopt innovative and competitive business model to become commercially viable. It was also informed that Indian Farmers Fertiliser Cooperative Limited (IFFCO) in Gujarat was looking for transporting small parcels of cargo along the coast in India which could easily be transported by sailing vessels. The sailing vessel industry could also consider transporting other types of cargo like fruits, commercial goods, fertilizers etc. on a point-to-point basis as the relatively cost of transportation by sailing vessel could be less than that of Rail & Roads making the sailing vessel industry competitive with other modes of transport.

[Action: Sailing Vessel Federation]

11 Shore based welfare facilities in all ports for seafarers –

11.1 Shri Abdulgani Y. Serang and Capt. Piyush Sinha informed members that India has an obligation to provide shore based facilities to visiting seafarers as per the Maritime Labour Convention.



11.2 The matter was discussed. It was decided that since there was statutory obligation for ports to provide such facility to seafarers, the ports need to be informed of this statutory obligation. Also, the availability of facility for seafarers within the ports needs to be obtained from the ports.

[Action: NSB]

12 Priority booking of seats in trains for Indian seafarers–

12.1 Shri Abdulgani Y. Serang informed members about the need for designating seafarers with priority listing for train booking as they have to travel by train from all part of India to join ships and for returning to their home towns after their service on ships.

12.2 After discussions, it was decided that NUSI would provide self-contained note to NSB Secretariat to enable the Secretariat to forward it to the Ministry of Shipping for taking up with Railway Ministry.

[Action: NUSI]

13 Contributory Annuity Fund Scheme for seafarers –

13.1 Shri Abdulgani Y. Serang informed members about the Contributory Annuity Fund Scheme forwarded by the Commissioner Seamen's Provident Fund to the Ministry, which has not yet been implemented. He requested NSB to take up the matter with the Ministry.

13.2 After discussion, it was decided that it may not be appropriate for NSB to duplicate the proposal initiated by another organization. In view of the same, instead of formally taking up the matter by NSB, it could be informally discussed by the Chairman with officials of the Ministry whenever the occasion arose.

14 Any other business with the permission of Chair–

14.1 Relaxation in Cabotage Policy – Shri Ajit Khot raised the issue of the recent relaxation in cabotage policy by the Government and desired that NSB take up the matter with Ministry. The matter was discussed and it was decided that since the policy has been recently adopted by the Government, sufficient time needs to be given for the implications of the policy to be evaluated. Also, since the policy itself has an inbuilt monitoring mechanism, it would be appropriate that the monitoring mechanism be given a chance to function before the matter is taken up by any other organization.

14.2 Establishment of Maritime Cluster at Goa – The Director General of Shipping informed members of the initiative taken by the Directorate General of Shipping to established a maritime cluster at Goa for the benefit of the various stake holders of the maritime sector in Goa, (including Shipbuilding and Ship repair units). She informed members that the cluster scheme was under the Ministry of Micro Medium and Small Enterprises and she had already held two meetings at Goa in respect of the scheme. She suggested that it may be included in the agenda of the NSB so that regular follow up in the matter can be done by NSB. Accordingly, it was decided that it would be included in the agenda of NSB,

[Action: NSB]

15 Agenda points from Indian Coast Guard.

15.1 High Berthing Charges for Coast Guard Ships – The representative of Coast Guard informed members that some of the non-major ports were levying high berthing charges on vessels of the Coast Guard even though Coast Guard assets were fulfilling national mandate. It was suggested by Coast Guard that commercial rates should not be levied by ports on such vessels.

After discussion it was decided that the Coast Guard would submit detailed port wise data regarding the charges to NSB for taking up the matter with the Ministry.

[Action: Indian Coast Guard]

15.2 Updating Data Base of Indian Dhows – The representative of Coast Guard informed that existing data base on the website of DGS regarding Dhows was at variance with the actual number of vessels operating. It was clarified that this task was already being undertaken by the Directorate General of Shipping and the updated list would be put on the DGS website in due course.

[Action: DGS]

15.3 Petty Theft/Robbery onboard Merchant Vessels off Kandla – The representative of Coast Guard informed that the petty theft/robbery onboard merchant vessels off Kandla were not being reported locally. Instead, it was directly being reported to international piracy reporting bodies.

After discussion it was the view that efforts need to be taken to eliminate such thefts in Indian waters so that the issue of reporting such incidents does not arise.

15.4 Abandoning of vessels under various litigations – The representative of Coast Guard informed that vessel were being abandoned in ports resulting in such vessels becoming hazard to navigation and environment. They suggested that State Maritime Boards and Port Authorities should enforce measures for safety, navigation and environment safety in respect of such vessels.

After discussion it was decided that the DGS may consider convening a meeting of Maritime Boards and Port Authorities to discuss issues pertaining to ports.

15.5 Establishment of Recognised TSS and Safety Fairways off Kerala Coast – The representative of Coast Guard suggested that Traffic Separation Scheme [TSS] and safety fairways be established off the coast of Kerala. It was informed that the matter was already being looked into by the DGS.

15.6 Entry Pass and Charges from ICG Personnel at Chennai Port – The representative of Coast Guard informed that charges were being levied by the Chennai Port for issue of entry passes even for members from Indian Navy/ Coast Guard and other Govt. Security agencies.

15.7 After discussion, it was clarified that the DGS is in the process of issuing necessary instructions to the ports as such difficulties are also being faced by officials of the DGS and MMD also.



16 Action Taken Report of 130th Meeting – The Secretary informed the members that the Action Taken Report of the last meeting was provided in the agenda folder for information of members.

17 Presentation on Port & NW1

17.1 Presentation on Port Capacity, Traffic Targets and Key Performance Indicators – A power point presentation was made by Shri D.N. Maurya, visiting Professor and corporate trainer in the port sector on how to realistically monitor the activities & developmental plans for Port Capacity, Tariff Targets and Key Performance Indicators.

The presentation also highlighted the need for setting targets of major ports by comparing the targets being achieved by non-major ports of the region handling similar type of cargo. Copy of presentation is attached as Annexure – 3.

17.2 Presentation on Making National Waterway-1 successful – A power point presentation was made by Shri H. C. Roy [Marine Engineer] & C-MET [a maritime workshop] on 'Making National Waterways-1' [NW1] successful.

The presentation touched on 'The Jal Marg Vikas Project' which is being implemented with support from the World Bank for creating infrastructure, connectivity and institutional support for developing NW-1 between Haldia and Varanasi. The project contributes to the development of inland water transport of the region. Copy of presentation is attached as Annexure – 4.

The meeting concluded with a vote of thanks to the Chairman & Hon'ble Members of National Shipping Board.



NATIONAL SHIPPING BOARD

MUMBAI

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Subj: 131st meeting of the National Shipping Board at Board Room of Indian National Shipowners' Association, Mumbai on 30th May 2018 at 1000 hrs. chaired by Shri Pradeep Trimbak Rawat, Chairman, NSB - reg.

Sr. No.	Name and Designation	Name of the Organization	Contact No. & Email ID	Signature
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4	Amar Singh Thakur	MIS	9930910194 mail@maritimeuniversityofindia.com	Thakur
5	Khalid Khan.	FISO Regional Chairman	9821033199 Chairmanwre@fiso.org	Uz
6	D/G B Murugan	Indian Coast Guard	9442819723 bk-murugan@coi.gov.in	My
7	Comdr Manish Sharma	PDNO, HQ MoD(N)	duo@navy.gov.in	
8	Cdr Gaurav Mahajan	PDNO HQ MoD(N)	— " —	
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15	A.A. MEHANS.	FEDERATION OF ALL INDIA SAILING VESSELS	9924659209 aasailfed@gmail.com	
16	DN Maurya	Consultant	9819224483	Maurya
17	H.C. Roy	CONSULTANT	9833125226	
18	R. MOHAN	Asst. Development Commissioner, Deep Sea, Mumbai	9029623894	Prof. Mohan

NATIONAL SHIPPING BOARD

MUMBAI

Sub.: 131st meeting of the National Shipping Board at Board Room of Indian National Shipowners' Association, Mumbai on 30th May 2018 at 1000 hrs. chaired by Shri Pradeep Trimbak Rawat, Chairman, NSB - reg.

Sr. No	Name and Designation	Name of the Organization	Contact No. & Email ID	Signature
19 *	DR. MALINI V. SHANKAR	DQS		(P)
20 *	SHRI. M.M. HASJA	MOS		(P)
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Honorable Chairman, Member secretary and dear members,

Namaste.

I sincerely appreciate the initiatives undertaken by the Government of India for developing coastal shipping under Sagarmala Project. I am sure you would agree with me, that any such initiative, would deliver maximum dividend only if all stake holders are allowed to take part in the initiative whole heartedly, with enthusiasm and energy. I am of the view that the Government of India, in this project of development besides giving importance on land side, should also think of incorporating coastal communities who had been in the vanguard of traditional marine ventures to achieve its desired goal.

Coastal Shipping has been talked about down the years; it is doubtful whether we have achieved anything substantial till date. Though the Government had been apparently protecting coastal shipping by Cabotage law, by which Indian flag owners are supposed to carry coastal cargo, invariably, the coastal cargo is carried by foreign flag ships on a perpetual relaxation basis, citing the inadequacy in carrying capacity of Indian ships. The Cabotage law protection to Indian ship owner is an illusion. If we carefully scrutinize, we will be surprised to find that while the Government is desirous of protecting the Indian coast vessels, in reality the various exemptions for foreign vessels and stringent rules in operation thwart growth of Indian tonnage.

I also feel that the real meaning of Coastal shipping is still not correctly understood. Even the logistics fraternity interprets Container shipping only as Coastal shipping. The various agencies involved in policy making do not give much credence to our Sail vessel operators, who had made enormous contribution to the growth of merchant marine business in

India down the years. It is sad that though the traditional Coastal communities pioneered the path of present day maritime development, their ancient, centuries old , traditional trade skills with neighboring shores and afar, across oceans have not been given due recognition in the policy formulation. Instead of transforming them from sail ship owning and operation to small tonnage owners and operators, we allow them to perish.

I suggest, Sagarmala should include the coastal communities, and their ship operating skills in its scheme. We are aware, Sagarmala envisages development of coastal communities by creating million jobs for them in the sector. It is felt that more could be done. It is suggested that the Government should consider evolving schemes to harness the century old small ship owning spirit and sailing skills of the coastal communities of the peninsular India.

If this is accepted, it is certain that this will also initiate and support carriage of cargo by shallow drafted small ships through inland waterways recently initiated by the Government. It will result in all Non major ports in the peninsular India will emerge as contributing ports to the existing mega and major ports. This will encourage old sailing vessel owners to own small ships to carry cargo for short sea voyages and converge cargo to the existing major and mega ports which will result in existing mega and major ports becoming regional transshipment hubs on their own.

What is to be done...

Coastal Shipping should be included in the Startup India project to boost coastal economy and attract coastal ship owning entrepreneurs.

Introduce low interest finance for owning and building of small ships with tonnage less than 2000 DWCC. Promotional tax benefit schemes to be introduced for the coastal entrepreneurs to reinvest in coastal ship owning business.

Exempt taxes like customs duty, GST, IT, etc for a minimum period of 10 years to encourage small ship construction, owning and operation in coastal India.

Allow our RSV -2 ships for day and night operation and RSV - 4 ships to go-around Sri Lanka on a voyage from West coast to East coast and all Indian islands through a special agreement like Bangladesh. Renew Indian Coastal shipping operation guide for monsoon operation. Let the master of the ship take a call on voyage instead of the ship getting crippled through redundant rules for taking a voyage.

Reserve certain bulk and break bulk cargo carriage through coastal ship operations for sea voyages in order to reduce road/rail congestion and air pollution. Also control excess / over load carriage on road and rail for coastal shipping to have fair playing ground on logistics.

Converge cargo to regional and mega and major ports via short sea shipping from Non major ports and vice versa which will make all Non major ports as vibrant domestic cargo terminals. Allot shallow berths at major and mega ports for small vessel operation and free custom from all coastal operation.

Nationalize all Non major port which are presently under state control and develop them with suitable draft, navigation and berth facilities and free them from customs coverage. Reduce scale of rates for small

vessels to enter major ports and mega ports with priority berthing and without pilotage as the master mariners of small ships are sons of soil.

Stevedoring to be in hands of private agencies, manning scale to be reviewed and bunkers to be duty free to make small ship operation's cost under control.

Let the centuries old navigational expertise of coastal communities be recognized, certified under PRADHAN MANTHRI KAUSAL VIKAS YOJANA and make them navigational officers and crew onboard. Finally coastal shipping will succeed only if Coastal communities of the peninsular India are included in the growth process with care.

And last but not least review the present day authority and monitoring jurisdiction of D G Shipping. Ship registration procedures in India should be simplified to encourage small ship owning entrepreneurs in India. D G Shipping should be responsible for improving and encouraging small ship owning in the country with time bond targets.

LET NEW INDIA ARISE FROM THE VIBRANT COASTAL INDIA.

Thank you.

R N Joe D Cruz

Member National Shipping Board

Port Capacity, Traffic Target and Key Performance Indicators

By- DN Maurya

Visiting Professor, Corporate Trainer
and Port & Shipping Consultant

Port Capacity Assessment

Port can be assessed on two basic parameters-

1. Cargo Volume- indicates size of port
2. Key Port Performance Indicators (KPI)- indicates efficiency of the port

Port Capacity Assessment

Cargo Volume: Volume of cargo handled must be in line with capacity of the port and capacity must be assessed in line with the investment made.

The above concept is being practiced by the private ports and BOT Terminals (**little brothers**) but not by the Major Ports (**big brothers**).

Port Capacity Assessment

Result: The little brother has become big brother and big brother still learning.....

Port Capacity Assessment



Port Capacity Assessment

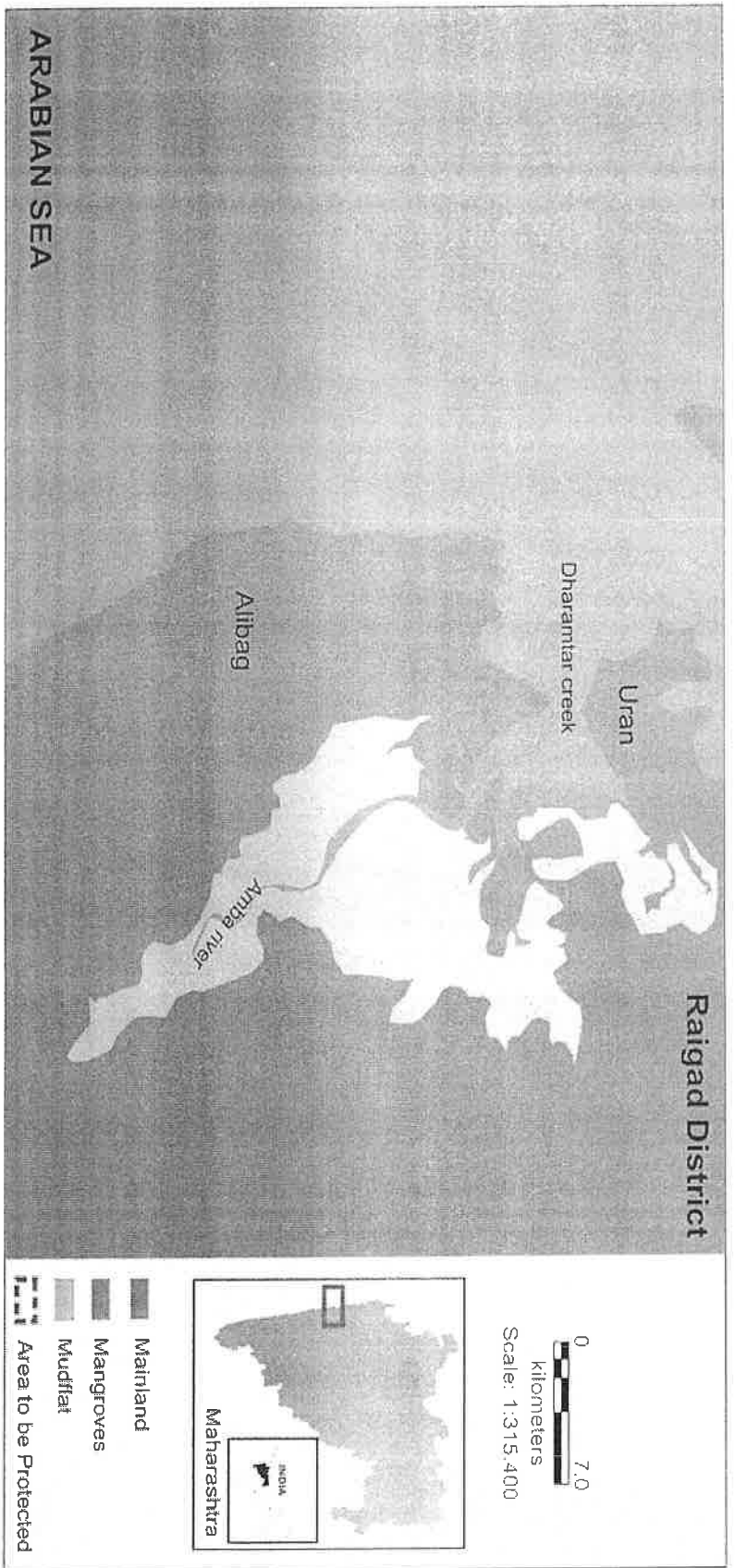


Port Capacity Assessment

Comparison of capacity at a non major port vis-à-vis major port

Type of Port	Draft	Berth Length	Traffic Handled in 2009 (Million tones)
Riverine Jetty- (Private Port)	3 mtrs (Tidal)	415 mtrs	6 million tone plus
Deep Water Port- (Major Port)	9 mtrs (Tidal)	445 mtrs	1 million tone plus

Capacity Assessment



Port Capacity Assessment

Why Capacity of Riverine Port > Deep Sea port:

Because under private sector, an investor demands return on his investment.

Questions:

1. Should Major Ports also pay back to Govt/ Public for the investment made?
2. If yes, then should they pay to Govt. like BOT operators pay to Major Ports as royalty/ revenue share??

Port Capacity Assessment

Latest Traffic handled and Capacity of same non major port and major port

Type of Port	Draft	Berth Length	Traffic Handled in 2018 (Million tones)
Riverine Jetty- (Private Port)	4.5 mtrs (Tidal)	725 mtrs	9.6 million tones in 2018. (declared capacity 10 million tones)
Sea Port- (Major Port)	10 mtrs	445 mtrs	2.2 million tone in 2018. (declared capacity 2.77 million tones)

Port Capacity Assessment

Three Point Approach to improve Major Ports working:

- Details on next slide

Three Point Approach

Sr No.	Approach Parameter	Will Result In (Outcome)
1	Right Capacity Assessment	identify under-utilized capacity (if in excess) and need for creation of additional facility (if in short).
2	Right Traffic Target Setting	will result in higher throughput, higher revenue and act as effective tool for performance monitoring of top level officers of port- Chairman, Dy Ch, HODs
3	Inducing Efficiency through KPPIs	will cut down the cost to customers as well as to the port, resulting in higher profits to all concerned

Port Capacity Assessment

- 1. Port Capacity Assessment:** The capacity of the port should be assessed on the basis of sea side infrastructure and connecting point infrastructure only.

It should not be linked to the land side infrastructure.

Port Capacity Assessment

Traffic Assessment should be based on-

- (a) Draft in channel & at berth.
- (b) The length of the berth
- (c) Equipment/ Cranes at berth (wharf)
- (d) Berth occupancy at 70%

Port Capacity Assessment

Traffic assessment should exclude-

1. Land side operations such as yard cranes / yard space / shed congestion
2. Road dispatch problems
3. Rail dispatch problems

These factors are bottlenecks and to be addressed by the port to overcome it.

Port Capacity Assessment

Who should do capacity assessment:

The port capacity can be best assessed by involving an ex employee of the same port (Resource Person) for which the capacity needs to be assessed. They should be appointed by a central agency and must be paid from central agency fund like IPA. It must be annual process.

No need to hire international firm with offices in multiple countries and turn over of 1000 crores

Port Performance Indicators

2. Traffic Target Setting: The present system involving discussion among the officials of Port, Ministry and IPA, for setting the target at comfort level of the Port Chairman, should be discontinued.

If Port Capacity and Traffic Projection have been worked out for a particular year, the target can be fixed automatically as below-

If T_p is less than T_c , then $T_t = T_p$

If T_p is equal to T_c , then $T_t = T_p$

If T_p is higher than T_c , then $T_t = T_c$

(T_p means Annual Traffic Projection, T_c means Annual Traffic Capacity and T_t means Annual Traffic Target for the berth/ port).

Traffic Target Matrix & Conclusion

Relationship between traffic projection & capacity	Traffic Target	Conclusion on additional facility to be created
If $T_p < T_c$	T_p	No additional capacity needed
If $T_p = T_c$	T_c	Planning to start for additional facility creation
If $T_p > T_c$	T_c	Additional facility to be created on priority basis

It must be ensured by the Ministry that the Ports do not put up any proposal for capacity augmentation to the Board or to the Ministry if $T_p < T_c$.

Traffic Projection

Traffic Projection/ Cargo Study:It should be carried out in following two steps-

- 1. By the Port itself on Yearly Basis:** This can be done by engaging a retired person from its traffic department on yearly basis through Central Agency like IPA/ Ministry and must be paid by the Agency.

The Resource Person so to be appointed should be assisted by the port personnel in relevant area as required by him to arrive at accurate projection.

Traffic Projection

The report prepared by the port (Resource Person) shall be only on traffic projection, not like Consultant Report which contains technical parameters, drawing details, environmental issues and financials etc.

Following to be taken into account for traffic projection-

- a).** Traffic trend in the recent past (future projection based on CAGR)
- b).** Interaction with all existing customers using the port
- c).** Industries coming up/ proposed to be set up in the port's hinterland
- d).** Govt. recent decisions which are likely to affect the traffic
- e).** Supreme Court/ High Court/ NGT decisions are likely have impact
- f).** International scenario which would affect the traffic at the port

Traffic Projection

2. By Appointing a Consultancy Firm when Needed: The appointment of a Consultancy Firm should be done only when the traffic projection made by the Port (through its retired employee) exceeds traffic capacity of the berth/berths.

The consultancy firm will then prepare Feasibility Report (FR) and Detailed Project Report (DPR) with Technical parameters, design details, financial analysis etc. If viable and cleared by the Ministry, capacity can be created for the projected overflowing traffic.

Key Port Performance Indicators

Key Port Performance Indicators (KPI):

There are about dozen of performance indicators in use by various ports authorities. However, but following **FOUR** are most important for monitoring on daily basis-

1. Pre-berthing delay
2. Turn round time
3. Output per ship day- for bulk ships
4. Berth productivity- for container ships

Key Port Performance Indicators

- These 4 Performance Indicators of Ports may be monitored on Monthly basis through Video Conferencing by Ministry/ NSB. The level of officer from the Port should not be below the level of Head of Department.
- These 4 performance indicators may be considered as part of ACRs of Chairmen, Deputy Chairmen and HODs of Traffic Deptt, Marine Deptt and Mechanical Engineering Deptt.

Key Port Performance Indicators

1. Pre-berthing Delay:

Date & time of berthing (-) date & time of reporting

2. Turn round time:

Date & time of sailing (-) date & time of berthing

3. Output per ship day:

Total cargo handled in MT(/) berth stay (gross)

4. Berth Productivity:

Total moves/ cont. handled (/) berth stay (gross)

Key Port Performance Indicators

- Details format for these 4 KPPIs is enclosed in word file.

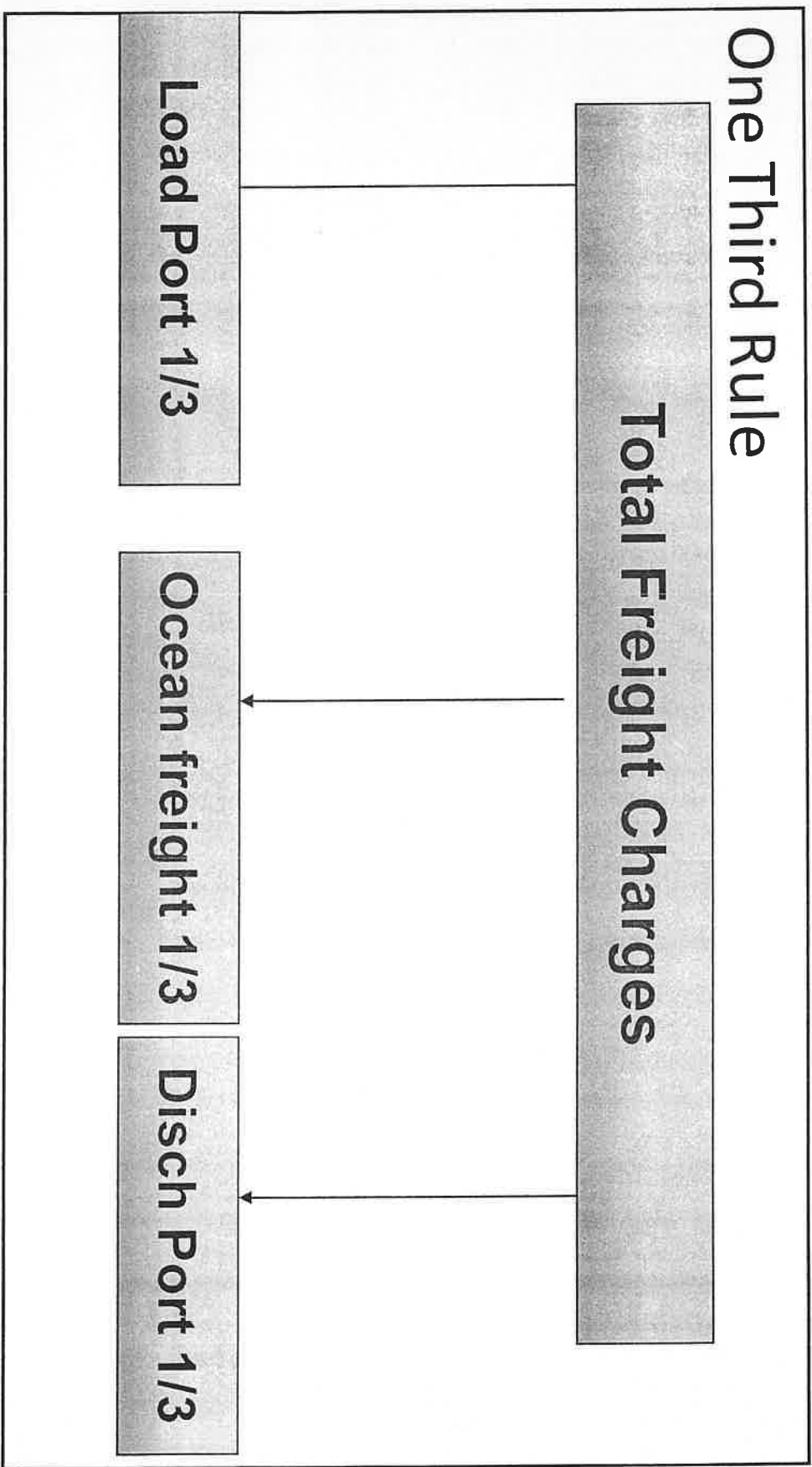
Key Port Performance Indicators

It is estimated that an additional ship-day at port for a medium size ship (supramax), costs \$ 15 k to 20k to shipping line.

Hence monitoring of above 3 indicators can reduce ship time at port resulting in reduction in shipping cost.

Total Freight Cost

One Third Rule



Total Port Cost

One Third Rule

Total Port Charges

ship time cost 2/3

Other cost 1/3
(Stev & Other)

Other Cost at Port

One Third Rule

Other Cost at Port

Stevedoring cost $\frac{2}{3}$

Other charges $\frac{1}{3}$

Port Performance Indicators

Other Performance Indicators (non financial) which can be monitored are-

1. Idle spent at berth
2. Net output per ship day/ berth productivity
3. Crane productivity
4. Dispatch of import cargo/ cont. from port
5. Productivity per employee (tones per employee)
6. Inventory of yard/ shed on daily basis
7. Total traffic handled
8. Berth occupancy

Suggested Formats for Four Key Port Performance Indicators

2. **Turn Round Time of Ships:** It should prepared in the following format and should include pre-berthing delay, time taken for inward movement, berth stay (gross) and time taken for out ward movement.

Name of Port:

Channel Draught at Port (Mtrs):

Max High Tide at Port (Mtrs).....

UNCTAD/ International Norms:

- (a): Container ships per 1,000 TEUs parcel size (handled):
 (b): Coal/ Coke Ships per 50,000 MT parcel size
 (c) Other Dry Bulk ships per 10,000 MT parcel size
 (d): Crude/ POL Tankers per 10, 000 MT parcel size
 (e): Chemical Tankers per 5,000 MT parcel size
 (f): Break Bulk per 10, 000 MT parcel size

Turn Round Time of Ships for the Month of.....

Sr No. (A)	Name of Vessel & DWT (B)	Qty of cargo to load/ discharge (C)	VIA No/ ID No. at Port (D)	Date & Time Vessel Reported (E)	Date & Time Vessel Berthed (F)	Date & Time Vessel sailed from Berth (G)	Date & Time Pilot Disembar ked (H)	Turn Round Time (Days: hrs:Min) I=(H-E)

Note: 1. Vessel Sr No. must be maintained same as written under Pre-Berthing Delay table.

2. Vessels berthed during the month but not sailed during this month, to be excluded, and vessels sailed during the month but berthed during previous month to be included in TRT format.

3. **Out-put Per Ship Day (For Bulk Cargo):** It should be prepared in the following format. The output should be calculated based on gross berth stay irrespective of idle time except when vessel had completed cargo operation and had stayed at berth on its own request for repair work/ administrative/ legal reasons etc.

.....
Name of Port:

No. of shifts x Hours per Shift Whether Mechanised Handling OR Conventional.....
 Mechanised Unloader capacity per hour..... Grab capacity.....MT

UNCTAD/ International Norms:

- (a): Coal/ coke.....
 (b): dry bulk.....
 (c): Steel Plates.....
 (d). Break bulk (bagged cargo).....
 (e): Liquid Bulk (Crude/ POL).....
 (f): Liquid Bulk (Chemicals).....

Output Per Ship day for the Month of.....

Sr No. (A)	Name of Vessel & Cargo and its Form (B)	Cargo Qty (MT) (C)	VIA No/ ID No. at Port (D)	Date & Time Vessel Berthed (E)	Date & Time Vessel Completed (F)	Date & Time Vessel Sailed from Berth (G)	Berth Stay in Days (H)=(G-E)	Output Per Ship Day (MT) (I)= (C/H)

Weighted Average for the month = Sum total of cargo handled / sum total of berth stay in days

- Note:** 1. Vessel Sr No. must be maintained same as written under Pre-Berthing Delay table.
 2. Cargo form means whether in the form of cargo like dry bulk, liquid bulk or break bulk like bags, parcels, ODC/ Project etc.
 3. In case of conventional handling, pl put star mark against Sr No of the Vessel above.

.....

4. **Berth Productivity (for Container Ships):** It should be prepared in the format shown below. The berth productivity should be calculated based on gross berth stay of the vessel. Following formula to be used for calculation of berth productivity.

Berth Productivity = Total Moves (no. of containers) handled / Gross berth stay of ship in hrs.

Name of Port:

No. of RQMCs at Port: Operation Cycle of RQMC as per OEM:

Total no. of supporting yard cranes/ equip with port:

UNCTAD/ International Norms for berth productivity:

Berth Productivity per Ship Per Hour for the Month of.....

Sr No. (A)	Vessel Name & VIA No. (B)	Total no. of cont handled (C)	Date & Time Ship Berthed (D)	Date & Time Ship Sailed from Berth (E)	Berth Stay in Hours (F)= (E-D)	Berth Productiv ity (G)=(C/D)	Time of Completi on of loading/ unloadg (H)

Average berth productivity for the month = Sum total of moves / sum total of berth stay
=moves per hour

Note: 1. Vessel Sr No. must be maintained same as written under Pre-Berthing Delay table.

2. Under column C, pl mention number of containers (Moves), not TEUs.

3. In case of JNPT, berth productivity of only JNPCT (Govt Terminal) should be shown.

FWNK XURE-4

①

MAKING NW-1 SUCCESSFUL.

BY:

CMET & H.C. ROY

1. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

2. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

3. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

4. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

5. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

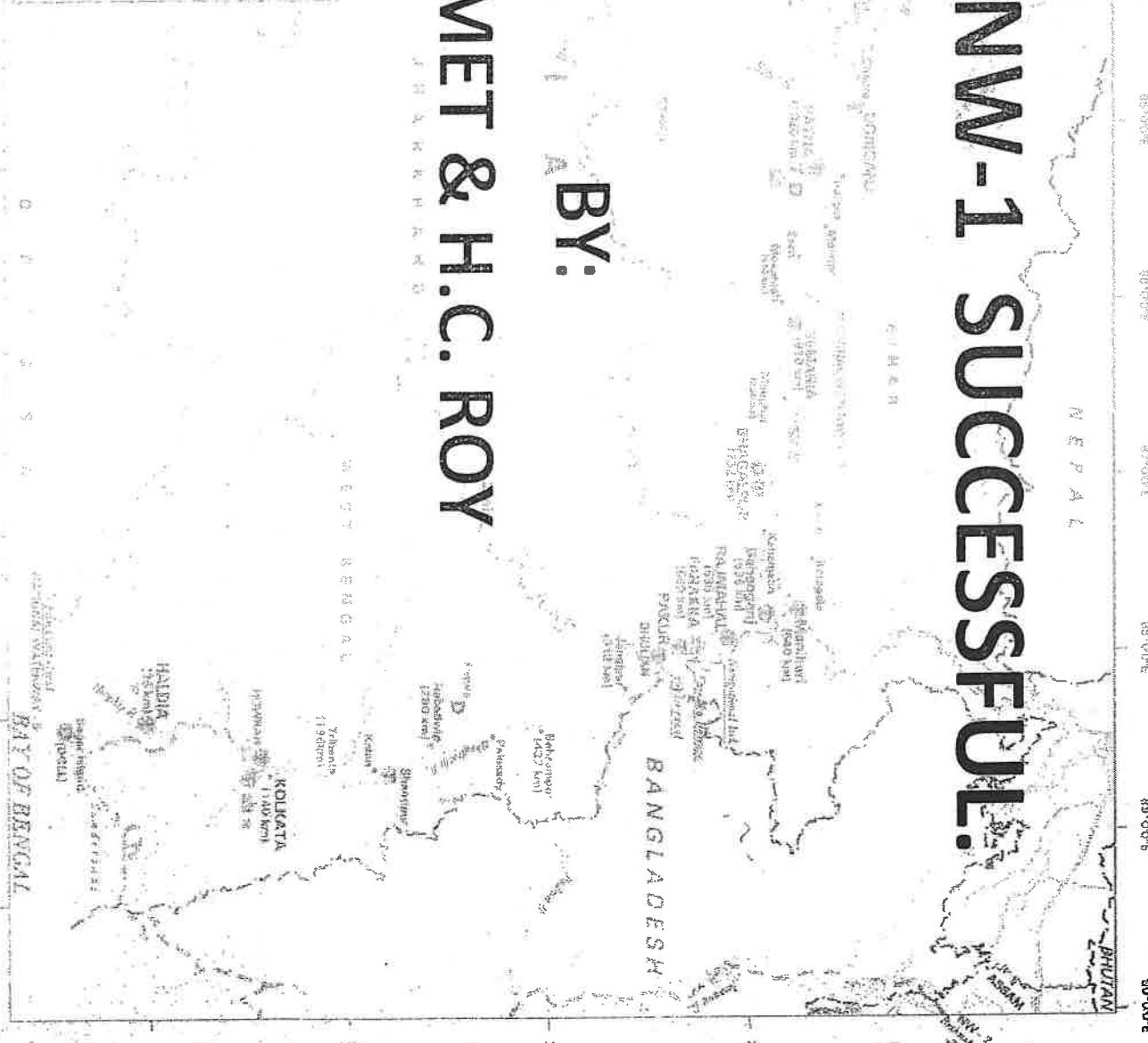
6. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

7. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

8. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**

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10. NAME OF THE PROJECT: **MAKING NW-1 SUCCESSFUL**



MAKING NW-1 SUCCESSFUL.

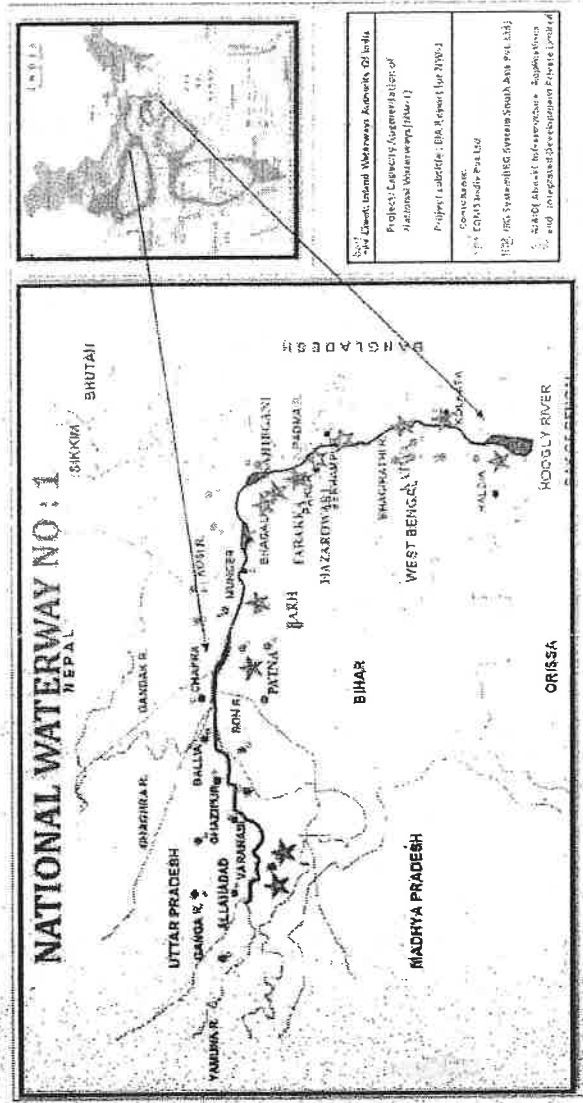
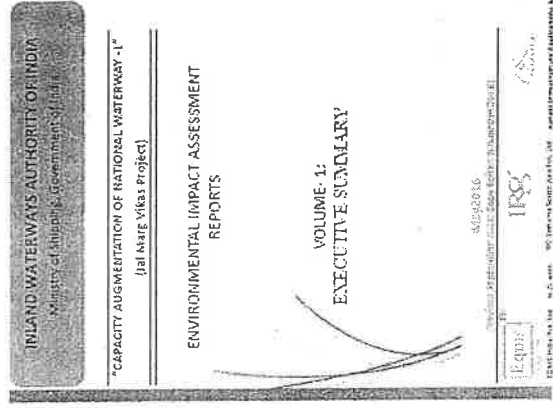


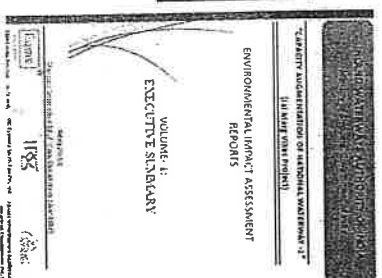
Figure 1: Location Map of NW-1

1. THE OBJECTIVE (In Brief)
2. WHAT HAS BEEN ACHIEVED.
3. WHAT IS THE PLAN BY 2023
4. CHALLENGES.
5. MORE SOLUTIONS TO CHALLENGES.
6. GANGA & MISSISSIPPI-YANGTSE-EUROPE
7. THE BUSINESS – MAKING IT A SUCCESS.



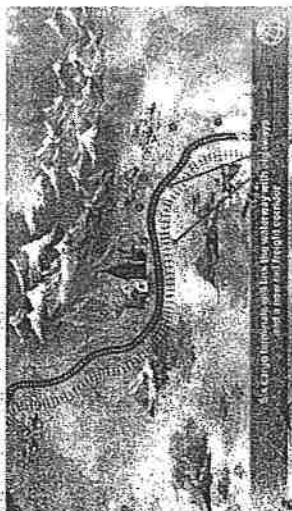
MAKING NW-1 SUCCESSFUL.

The Jal Marg Vikas Project, with support from the World Bank, is aimed at creating the required infrastructure, connectivity and institutional support for market development on NW-1 focusing on the stretch between Haldia and Varanasi. The project will also contribute to (i) reducing the growth of transport-related greenhouse gas emissions by rebalancing the freight mode shares and by promoting a new and complementary mode of transportation; (ii) national as well as international trade, and regional integration which allows goods to move by coastal shipping from Chittagong Port in Bangladesh and Haldia/Kolkata, and thereafter by inland waterways or road transport to the Nepal, Bhutan, and north-eastern Indian states; (iii) economic integration of four low income states (West Bengal, Jharkhand, Bihar and Uttar Pradesh) and augmentation with Eastern Dedicated Freight Corridor; and (iv) improved safety and environmental protection in IWT minimizing the negative effects of water transport on the river environment.



MAKING NW-1 SUCCESSFUL.

1. THE OBJECTIVE (In Brief) 1/4



Ref: <https://youtu.be/d4nqJAkpmL4> WILL WE BE DOING THIS?



Ref: <https://youtu.be/d4nqJAkpmL4> WILL WE BE DOING THIS?



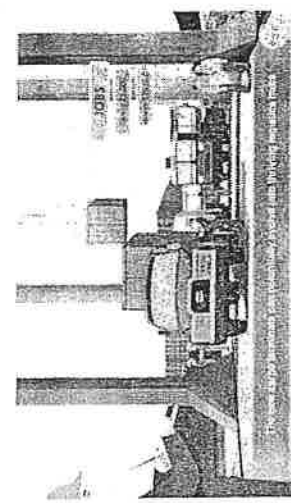
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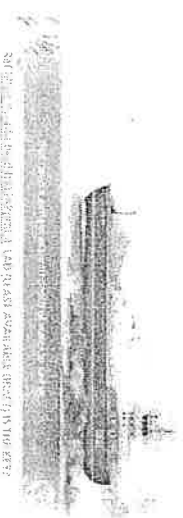
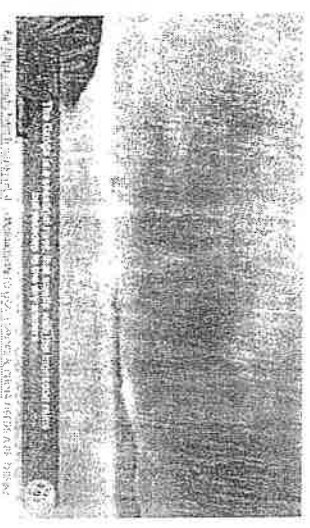
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28-05-2018

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MAKING NW-1 SUCCESSFUL.

1. THE OBJECTIVE (in Brief) 2/4



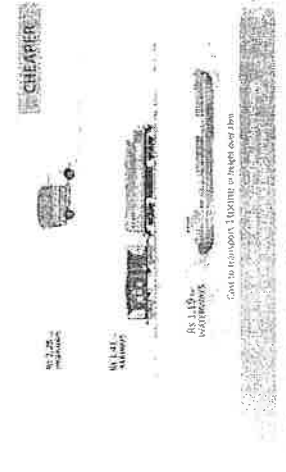
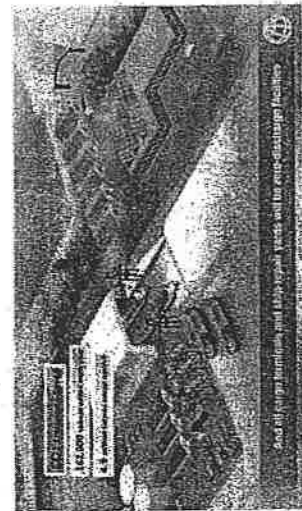
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MAKING NW-1 SUCCESSFUL.

1. THE OBJECTIVE (in Brief) 3/4



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28-05-2018

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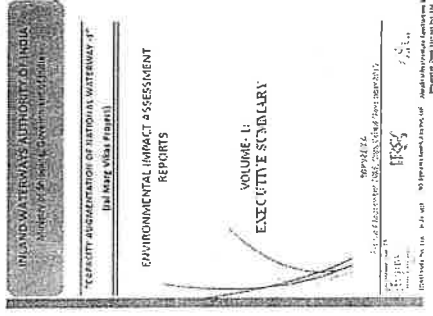
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MAKING NW-1 SUCCESSFUL.

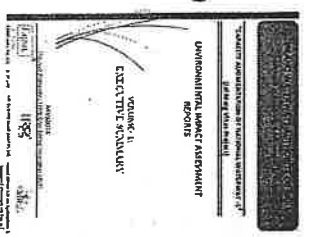
2. WHAT HAS BEEN ACHIEVED.

- 2.1 RAIL VESSEL RO-PAX HAS BEEN OPERATED BETWEEN VARANASI AND KOLKATA.
- 2.2 DREDGING IS IN PROGRESS HOWEVER IWAI IS SHORT OF DREDGERS FOR CERTAIN DRAFTS. DETAILS NOT AVAILABLE.
- 2.3 AN ADDITIONAL DREDGER HAS BEEN PROCURED FOR DEEPER DRAFTS.
- 2.4 EXTENSIVE CONSULTATIVE STUDIES HAVE BEEN CARRIED OUT TO MAKE IWAI SUCCESSFUL.
- 2.5 A STATE OF THE ART ADDITIONAL LOCK AT FARAKKA HAS BEEN CONTRACTED TO LARSEN & TUBRO.
- 2.6 A DETAILED ENVIRONMENTAL IMPACT STUDY TO SAVE ENDANGERED RIVER LIFE HAS BEEN DRAWN UP.



MAKING NW-1 SUCCESSFUL.

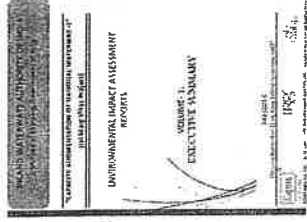
3. WHAT IS THE PLAN BY 2023. 1/3



Salient Features	Capacity/Quantity/Nos.			
Facilities Planned	3 Multi-modal terminal sites (Sahibganj, Varanasi &Haldia) 1 new Navigation lock- Farakka River bank protection works at planned terminal sites and along Feeder canal			
Facilities under Planning Stage	3 additional terminal sites (at Ghazipur & Kalughat-site finalized and at Tribeni-under consideration) 5 ro-ro crossings Barge repair and maintenance facilities River training works River bank protection works at the proposed civil intervention sites			
Designed capacity of Terminals	Infrastructural Facility	Projected Cargo-2015 (MTPA)	Projected Cargo-2030 (MTPA)	Projected Cargo-2045 (MTPA)
	Sahibganj Terminal	2.24	4.39	9.00
	Varanasi Terminal	0.54	1.22	1.22

MAKING NW-1 SUCCESSFUL.

3. WHAT IS THE PLAN BY 2023. 2/3



Salient Features	Capacity/Quantity/Nos.		
	(with current land)		
	Haldia Terminal	3.18 MTPA	
Navigation Channel	Channel Width-45 m LAD-3 m from Haldia (0 Km) to Barh (980 Km) , 2.5 m from Barh to Ghazipur (1250 Km) and 2.2 m from Ghazipur to Varanasi (1360 Km) at present		
Design Vessel Specifications	Vessels of maximum length of 110 m, beam of 11.4 m, draught of 2.5 m-2.8 m and air draught of 9 m will be required in NW-1.		
Size of Vessels	1500-2000 dWT		
River Slope	Haldia to Farakka-1 in 11000 Farakka downstream-1 in 18000 Farakka to Allahabad-1 in 17,000		
Maintenance Dredging	Within Navigation Channel-14,850,000 cum/year*		
Type of Dredgers	Cutter Suction dredgers (CSD), Water Injection dredgers, Agitation/Plough dredgers and Back-hoe dredgers		
Dredge disposal	Preferably off-shore, onshore only if sediments are found to be contaminated		

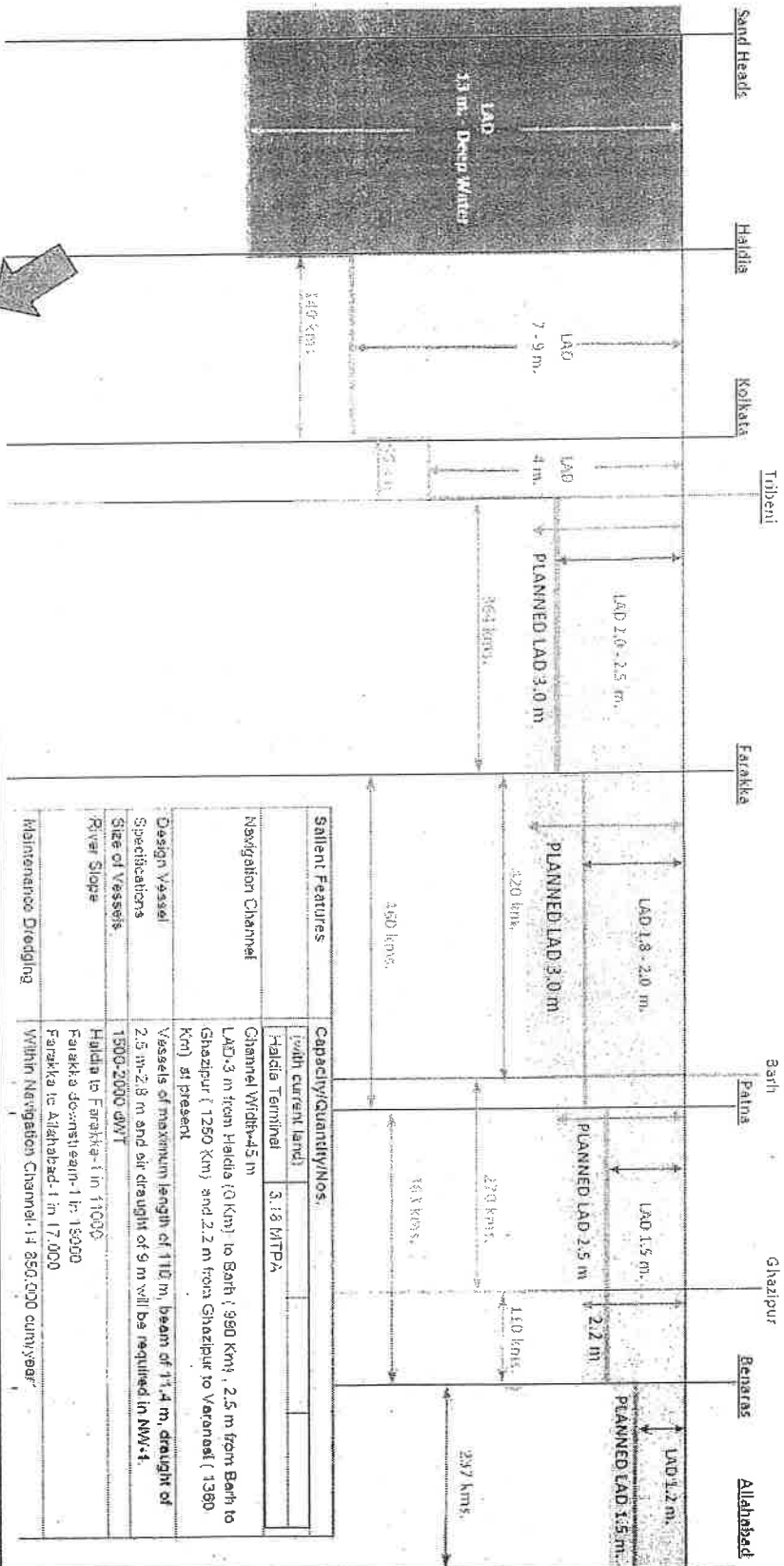
* Quantities are tentative and subject to change with revision in planning

28-05-2018

MAKING NW-1 SUCCESSFUL.

3. WHAT IS THE PLAN BY 2023. 3/3

THE RIVER GANGA AS PER DETAILS AVAILABLE ON IWAI WEBSITE .. DREDGING MAY NEED TO BE CARRIED OUT.



ENVIRONMENTAL IMPACT ASSESSMENT REPORT

PROJECT: NW-1
EXECUTIVE SUMMARY

DATE: 1995
PAGE: 3/3

NIGHT NAVIGATION IS POSSIBLE

NON-TIDAL. Thus Fresh water. LIMITED, OR, NO CORROSION.

NIGHT NAVIGATION IS NOT YET POSSIBLE.

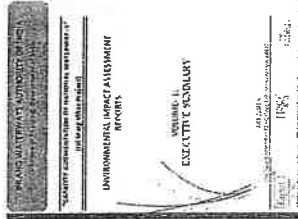
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MAKING NW-1 SUCCESSFUL.

4. WHAT ARE THE CHALLENGES 1/3

S.	Key Concerns	Redressal
1	Fishing community raised concern regarding effect on fish productivity and demanded support from project for the same.	- Such impacts are unlikely from this project. However, mitigation, enhancement measures are proposed under EMP for reduction of impacts if any due to construction & operation of NW-1 and its components. Some of the measures include: - Technical support for enhancing fish productivity by setting up demonstration nurseries and training centre through institute of repute like CIFRI - Regulated/slow speed of vessel at select locations and Zero Pollution approach from vessel and terminals - Intimation of dredging/piling plan to fishermen community prior to carrying out any activity - Provision of sirens and strong searchlights in vessels/barges to pre-warn the fishermen.
2	Provision should be made for adequate compensation for land acquisition wherever applicable.	SIA and RAP has been prepared for Sahibganj and consolidate SIA/RAP for NW-1. Provision of due compensation has been made as per these plans which are prepared as per applicable R&R policies.
3	People desired to have the relocation site for the people likely to be displaced near river Ganga.	Relocation site is proposed to be selected by the concerned authorities responsible for land acquisition in consultation with people concerned.
4	People demanded support for the improvement in and around local immersion Ghats at Durgachak (near Haldia terminal in West Bengal) to reduce congestion, especially during the local festival.	Budgetary provision is made under EMP for improvement of Ghats as an enhancement measure. Additional enhancement measure has been proposed for small-enclosed areas dedicated for female bathing in every village along the NW-1 to allow females maintain their privacy while fulfilling their religious belief of bathing in river Ganga.

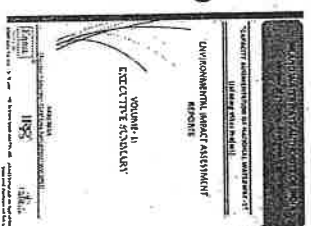
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MAKING NW-1 SUCCESSFUL.

4. WHAT ARE THE CHALLENGES 2/3

5	People raised concern that the terminal development may lead to increased traffic on the connecting roads, which are not suitable for such an increased load, and needs to be upgraded.	Project design has considered this aspect and adequate provision is made for developing access road to the terminals to avoid any kind of congestion at each terminal site.
6	Turtles will be affected due to regular movement of vessels in river in Kashi Turtle Sanctuary.	Maximum of 1-2 vessels per hour are expected to move in the sanctuary area. Speed of vessels shall be maintained to 5 kmph/2.7 knots in turtle sanctuary area. Barge movement at this speed generates noise in order of 110-140 dB. Threshold noise level of turtles for change in behavioural response is 150 dB which is above the noise expected to be generated by moving barges and the impact on turtles behaviour responses is anticipated to be insignificant. Other measures are also being proposed in the EMP to minimize impact of barge movement on turtles.
7	Dolphins will be affected due to barge movement during the operation phase of the project.	Adequate mitigative measures have been proposed in the project design which includes provision of propeller guards to prevent entangling of dolphins and other mammals, speed restriction in the sanctuary area and a restrictive buffer zone of 100m horizontally and 500m longitudinally on either side of the river confluence areas for any dredging activity. Other measures are also proposed in the management plan to reduce the impact on dolphins and other aquatic fauna.
8	Oil spillage from ships during accident may impact the aquatic flora, fauna, water quality and anti-bacterial properties of river Ganga.	Such situations are remote. Safety measures are proposed in the EMP for vessels as well. No vessels are expected to discharge any of its liquid or oily waste in the river. Emergency response plan would deal with emergency situations to minimize the impact of such situations. It is also proposed that each vessel would have appropriate sewage treatment, treated sewage storage and waste management facilities to prevent water pollution.

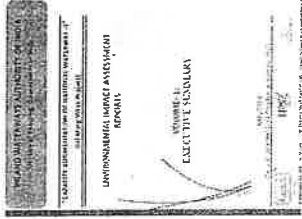


MAKING NW-1 SUCCESSFUL.

4. WHAT ARE THE CHALLENGES 3/3

9	People raised concerns regarding the likely impact on water quality due to construction and operation of terminal facility and cargo movement.	Environment management plan has incorporated the measures for prevention of water pollution from terminals, and barge operations. Zero discharge approach is proposed for terminals development and barge operations.
10	People raised concern about cutting of large no. of trees at Sahibganj site.	Compensatory tree plantation (1:7 basis) at Sahibganj and additional plantation is proposed to be undertaken. At all the terminals/jetty sites green belt will be developed to the extent possible. This will help in minimizing the impact and will lead to reduced impact of CO ₂ .
11	The varying LAD may lead to grounding of vessels.	LAD is proposed to be maintained in the stretch between Haldia to Varanasi during entire lean period
12	Dredging may have significant impact on breeding and spawning season of fishes.	Dredging is proposed to be regulated during breeding and spawning season of the fishes.
13	People have pointed out the existing erosion problem in the Farakka feeder canal and voiced the apprehension that the NW-1 development and barge movement may escalate this problem.	Provision has been made in the project design for bank protection work of 9.438 km; it is proposed to be undertaken on banks of feeder canal to prevent the erosion.
14	People have suggested that appropriate parking facilities be made inside the proposed terminals for better management of goods carriers and to reduce traffic on existing road due to inappropriate parking on the public roads.	Adequate parking provisions are proposed in each terminal site design.
15	People have proposed adequate provisions for prevention of water logging in and around the terminals, and for firefighting.	Adequate drainage provision is made for channelizing the rain water at each terminal site. Fire-fighting facility is also proposed at each terminal site.

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MAKING NW-1 SUCCESSFUL.

5. SOLUTIONS. 1/4

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5.	Key Concerns	Redressal
1	Fishing community raised concern regarding effect on fish productivity and demanded support from project for the same.	- Such impacts are unlikely from this project. However, mitigation, enhancement measures are proposed under EMP for reduction of impacts if any due to construction & operation of NW-1 and its components. Some of the measures include: - Technical support for enhancing fish productivity by setting up demonstration nurseries and training centre through institute of repute like CIFRI - Regulated/slow speed of vessel at select locations and Zero Pollution approach from vessel and terminals - Intimation of dredging/piling plan to fishermen community prior to carrying out any activity - Provision of sirens and strong searchlights in vessels/barges to pre-warn the fishermen.
2	Provision should be made for adequate compensation for land acquisition wherever applicable.	SIA and RAP has been prepared for Sahibganj and consolidate SIA/RAP for NW-1. Provision of due compensation has been made as per these plans which are prepared as per applicable R&R policies.
3	People desired to have the relocation site for the people likely to be displaced near river Ganga.	Relocation site is proposed to be selected by the concerned authorities responsible for land acquisition in consultation with people concerned.
4	People demanded support for the improvement in and around local immersion Ghats at Durgachak (near Haldia terminal in West Bengal) to reduce congestion, especially during the local festival.	Budgetary provision is made under EMP for improvement of Ghats as an enhancement measure. Additional enhancement measure has been proposed for small-enclosed areas dedicated for female bathing in every village along the NW-1 to allow females maintain their privacy while fulfilling their religious belief of bathing in river Ganga.

CONCRETE TANKS WITH POLYPROP FINE GAUZE NET TANKS CAN BE PLACED IN THE RIVER FOR SPAWNING.

WHILE LAND ACQUISITION FOR MULTIMODAL TERMINALS HAVE COMMENCED AND PART COMPLETED, FOR THOSE THAT HAVE NOT BEEN DONE, MY IDEA, OF A BRIDGE PORT MAY KINDLY BE CONSIDERED. DETAILS LATER.

MAKING NW-1 SUCCESSFUL.

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5. SOLUTIONS 2/4

5	People raised concern that the terminal development may lead to increased traffic on the connecting roads, which are not suitable for such an increased load, and needs to be upgraded.		Project design has considered this aspect and adequate provision is made for developing access road to the terminals to avoid any kind of congestion at each terminal site.
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28-05-2018

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THE CONVENTIONAL PROPULSION SYSTEM OF STERN TUBE / STERN SEAL WILL BE DETRIMENTAL. ALTERNATIVE PROPULSIONS WILL BE BETTER SUITED.

PRESENT DAY TECHNOLOGY CALLOWS FOR 'FISH FINDER'S'. THESE CAN IDENTIFY SCHOOL-SIZE AND LOCATION. USEFUL FOR FISHERY STUDIES. AND CAN BE RECORDED IN REAL TIME. TO BE MADE MANDATORY.

NEW PROPULSION METHOD AND IN SERVICE CLEANING OF THE GANGA CAN BE INCORPORATED TO.

MAKING NW-1 SUCCESSFUL.

5. SOLUTIONS 3/4

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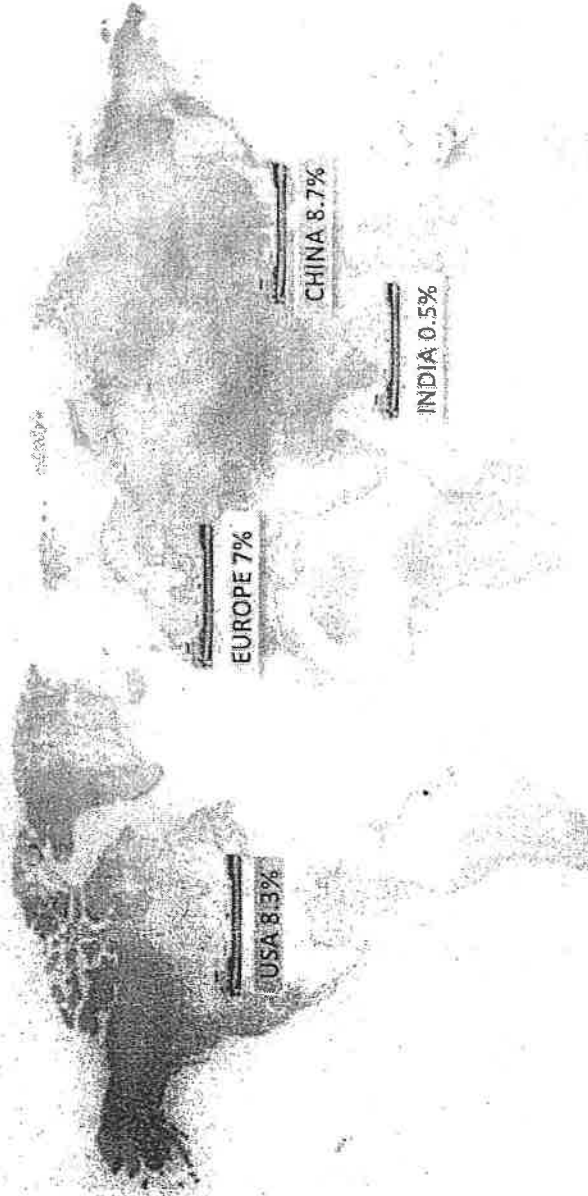
NEW PROPULSION METHOD AND IN SERVICE CLEANING OF THE GANGA CAN BE INCORPORATED TO.

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A NATURAL GRASS GROWS IN MAHARASHTRA WHICH FORMS A NETWORK AND IS VERY STRONG. CAN BE USED FOR PREVENTING EROSION OF THE BANKS.

MAKING NW-1 SUCCESSFUL.

5. SOLUTIONS 4/4



But India has yet to develop it's considerable inland waterways potential.

Ref <https://youtu.be/d4nqJApml4> COMPARISON TO USA, EUROPE & CHINA NEEDS A RE THINK?

I BELIEVE TAKING THE BEST PRACTICES FROM THE ABOVE MENTIONED COUNTRIES' RIVER TRANSPORT SYSTEM IS A GOOD WAY FORWARD. HOWEVER, OUR NW-1 HAS VERY LITTLE SIMILARITY WITH THEIR RIVER SYSTEMS. OURS WILL NEED TO A DIFFERENT VIEW POINT.

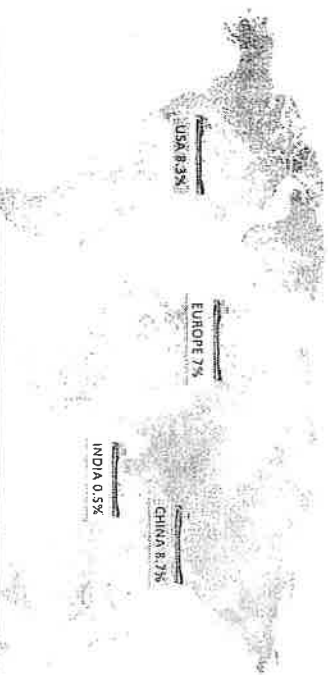
28-05-2018

https://youtu.be/d4nqJApml4

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MAKING NW-1 SUCCESSFUL.

6. GANGA & MISSISSIPPI-YANGTSE-EUROPE



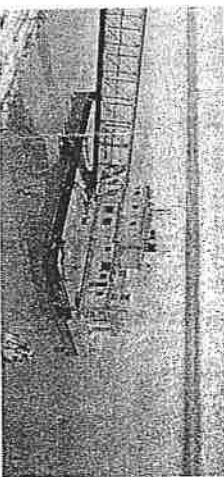
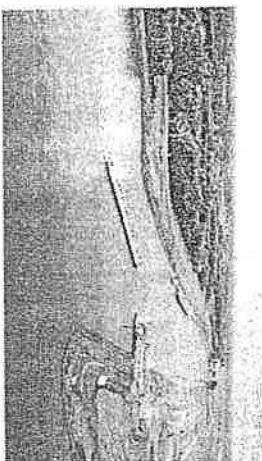
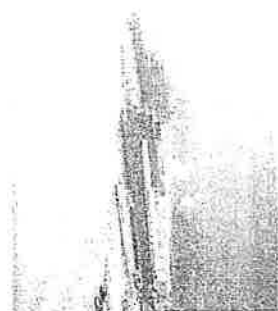
Relative river length development compared to world river potential

Relative river length development compared to world river potential

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COMPARISON OF THE RIVERS FOR WATER BORNE TRADE.				
	MISSISSIPPI USA	YANGTSE CHINA	EUROPE	GANGA NW-1
1 WATER	CLEAR/TURBID	CLEAR/TURBID	CLEAR	TURBID
2 FLOATS/AM	V. RARE	RARE	V. RARE	HIGH
3 DEPTH	LAD 9.5 FT	MOSTLY 30 FT.	DEEP.	VARIES
4 PERENNIAL	YES	YES	YES	NO (270-330 DAYS)
5 SHOALS & MEANDERING	SOME	SOME	ALMOST NONE	EXCESSIVE
6 REGULATORY	SEVERE	MODERATE/SEVERE	SEVERE	IN THE PROCESS
7 AQUATIC LIFE	YES	YES	YES	YES
8 POLLUTION LAWS	V. STRINGENT	STRINGENT	VERY STRINGENT	TO BE MADE VERY STRINGENT
9 HUMAN SETTLEMENTS	DISTRIBUTED	DISTRIBUTED	DENSE	V. DENSE
10 SIGNIFICANCE	TRADE / HISTORY	TRADE / HISTORY	TRADE	HOLY / TRADE / HISTORY

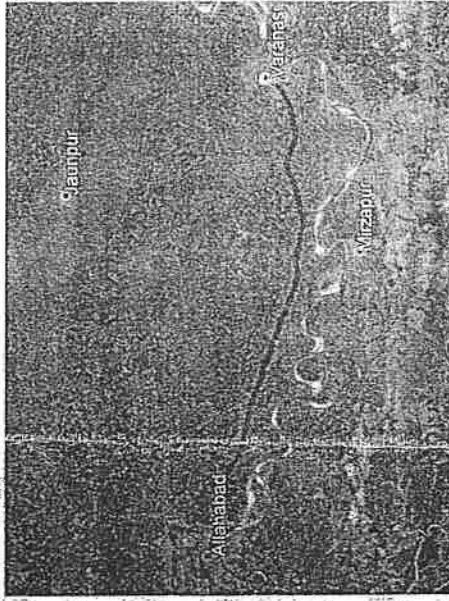
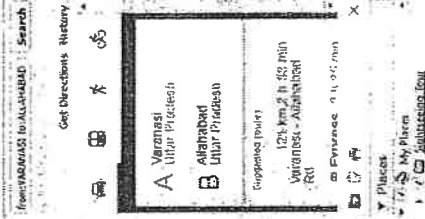
Note: The nomenclatures used are close approximations only



MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 1/6

VARANASI TO ALLAHABAD (LAD 1.2 meters for 270 – 330 days by 2023)



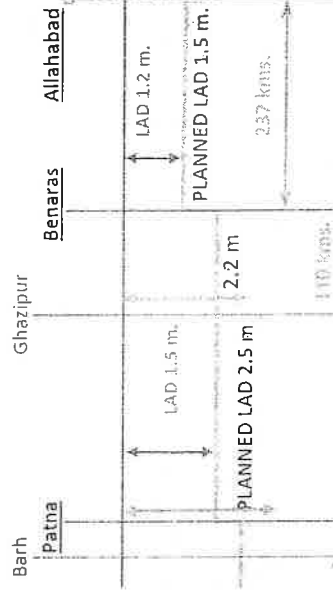
DISTANCE BY ROAD = 121 KMS.
ESTIMATED AVG SPEED BY ROAD = 25Km/Hr.
ESTIMATED AVG TRAVEL TIME BY ROAD = 4.85 Hrs.

DISTANCE BY RIVER = 237 Kms.

ESTIMATED AVG SPEED ON WATER = 10Km/Hr. (max)
ESTIMATED AVG TRAVEL TIME BY RIVER = 23.7 Hrs.

ALLAHABAD > BENARAS

DGING AND LAD BY 2023.



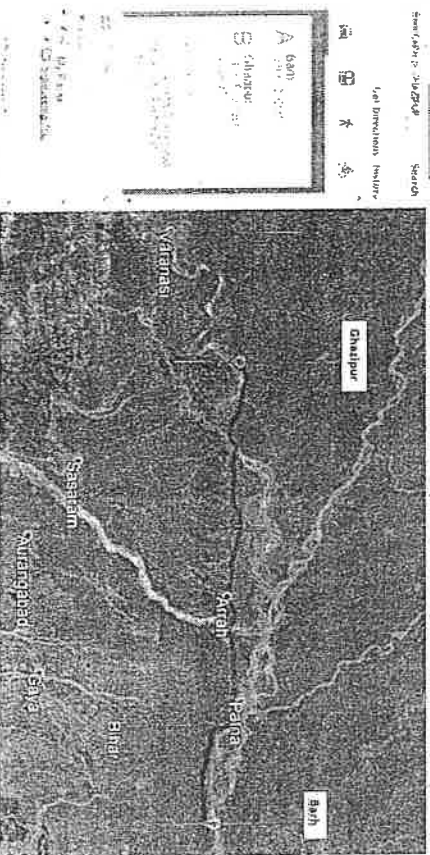
1. THE STRETCH BETWEEN VARANASI & ALLAHABAD FINDS SCARCE MENTION IN NW-1, HOWEVER THESE TWO CITIES ARE OF GREAT TOURISM VALUES AND THUS EMPLOYMENT GENERATORS.

1. POSSIBILITY OF CARRIAGE OF CARGO IS LIMITED. CAN BE EXPLORED.
2. HUGE POSSIBILITY FOR TOURISM. PAX CARRIERS WITH 0.9m DRAFT WITH 200 PAX IS POSSIBLE.
3. DECK LOADING, 2(OR 4 x) x THRUSTER DRIVE GIVEN POSSIBILITY OF FLOATSAM IS VERY HIGH.
4. FERRY TO BUILT IN VICINITY MAKES FOR EASE OF MAINTENANCE & LOCAL BUSINESS GENERATION.
5. RO-PAX/CARGO VESSEL DESIGN TO BUILD IN JUMBOISATION PLAN FOR LAD INCREASE TO 1.5m.
6. FRESH WATER, REDUCED HULL CORROSION.

MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 2/6

BARH > GHAZIPUR (LAD 1.8 – 2.5 m.) GHAZIPUR > BENARAS (LAD 1.5 – 2.2m) for 270 – 330 days by 2023

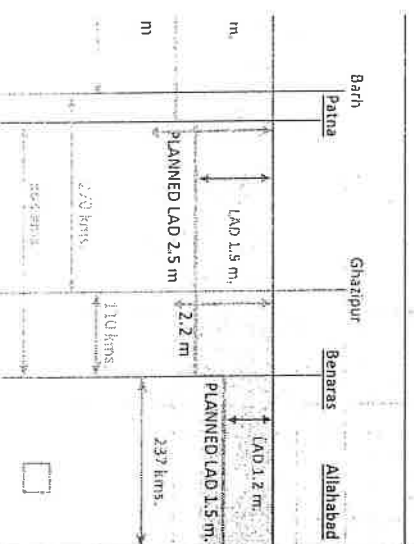


DISTANCE BY ROAD = 242/339 KMS.
ESTIMATED AVG SPEED BY ROAD = 35km/Hr.
EST. AVG TRAVEL TIME, ROAD = 7 / 10 Hrs.

DISTANCE BY RIVER = 270/330 KMS.
ESTIMATED AVG SPEED ON WATER = 35km/Hr. (max)
EST. AVG TRAVEL TIME, RIVER = 7 / 10 Hrs.

BARH>GHAZIPUR > BENARAS

. DREDGING AND LAD BY 2023.

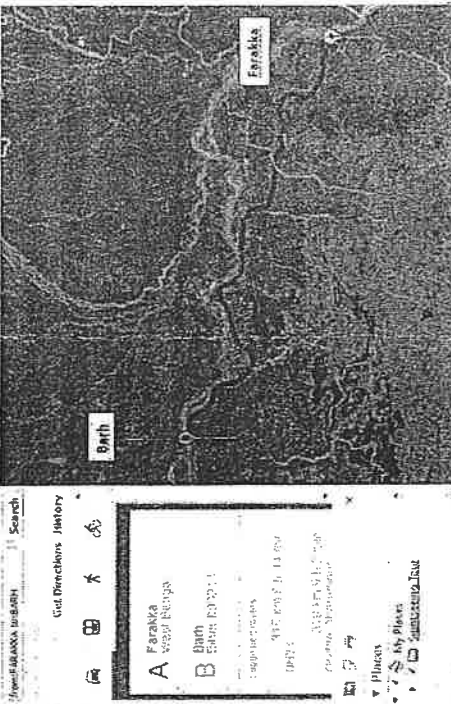


2. THE STRETCH BETWEEN BARH > GHAZIPUR > BENARAS IN NW-1, CERTAINLY HAS CARGO CARRIAGE POSSIBILITIES. CROSS RIVER 200+ PAX RO-PAX VESSELS & FOR CARRIAGE OF PERSONAL VEHICLES LIKE MOTOR CYCLE, CYCLES IS POSSIBLE.
 1. POSSIBILITY OF CARRIAGE OF CARGO IS CERTAIN.
 2. TOURISM AND CROSS-RIVER PAX CARRIERS WITH 1.1 m DRAFT WITH 200+ PAX IS POSSIBLE.
 3. DECK LOADING, 2(OR 4 x) x THRUSTER DRIVE GIVEN POSSIBILITY OF FLOATSAM IS VERY HIGH.
 4. FERRY TO BUILT IN VICINITY MAKES FOR EASE OF MAINTENANCE & LOCAL BUSINESS GENERATION.
 5. RO-PAX/CARGO VESSEL DESIGN TO BUILD IN JUMBOISATION PLAN FOR LAD INCREASE TO 1.5m.
 6. GHAZIPUR > BENARAS SECTOR WILL HAVE FINANCIAL MODEL CHALLENGES DUE LESS LAD.
 7. FRESH WATER, MINIMAL HULL CORROSION.

MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 3/6

FARAKKA > BARH (LAD 1.8m ~ 3.0m for 270 – 330 days by 2023)



DISTANCE BY ROAD = 315 KMS.

ESTIMATED AVG SPEED BY ROAD = 30km/Hr.

ESTIMATED AVG TRAVEL TIME BY ROAD = 10.5 Hrs.

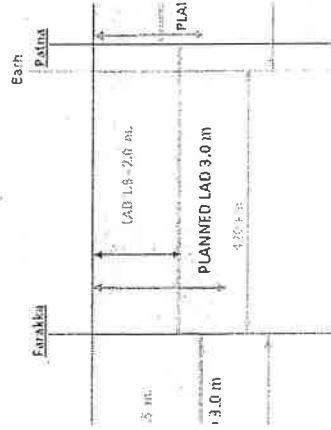
DISTANCE BY RIVER = 420 KMS

ESTIMATED AVG SPEED ON WATER = 10km/Hr. (Avg)

ESTIMATED AVG TRAVEL TIME BY RIVER = 42.0 Hrs.

FARAKKA > BARH

E ON IWAI WEBSITE .. DREDGING MAY NEE



3. THE STRETCH BETWEEN FARAKKA > BARH IN NW-1, CERTAINLY HAS CARGO CARRIAGE POSSIBILITIES. CROSS RIVER 200+ PAX RO-PAX VESSELS & FOR CARRIAGE OF PERSONAL VEHICLES LIKE MOTOR CYCLE, CYCLES IS POSSIBLE.

1. POSSIBILITY OF CARRIAGE OF CARGO IS CERTAIN.
2. TOURISM AND CROSS-RIVER PAX CARRIERS WITH 1.5m ~ 2.5m DRAFT WITH 300+ PAX IS POSSIBLE.
3. DECK LOADING, 2(OR 4 x) x THRUSTER DRIVE GIVEN POSSIBILITY OF FLOATSAM IS VERY HIGH.
4. CARHO HOLDS WITH WETHER TIGHT H/COVERS IS A POSSIBILITY. POLYMER H/COVERS AS ON THE MISSISSIPPI?
5. SHIPYARD NORTH OF FARAKKA (IN VICINITY) MAKES FOR EASE OF MAINTENANCE & LOCAL BUSINESS GENERATION.
6. RO-PAX/CARGO VESSEL DESIGN TO BUILD IN JUMBOISATION PLAN FOR LAD INCREASE 1.8/2.0 TO 3.0m.
7. FARAKKA > BARH THIS WILL BE A SERIOUS FINANCIAL CHALLENGE FOR ASSET VIABILITY/PROFITABILITY, AS THE PRED DREDGE AND POST 2023 LAD HAS THE MAXIMUM DIFFERENCE.
8. FRESH WATER, MINIMAL HULL CORROSION.

28-05-2018

heroy7@gmail.com

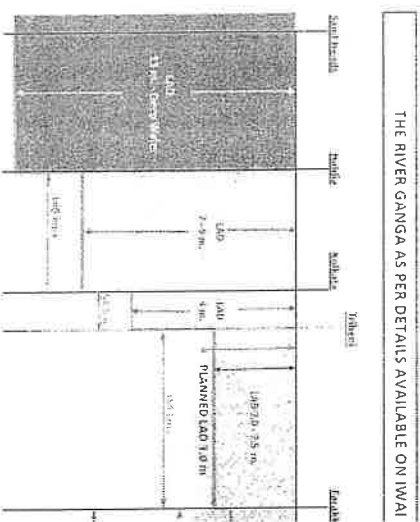
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MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 4/6

HALDIA > FARAKKA (LAD TRIBENI > FARAKKA 2.5m ~ 3.0m for 270 – 330 days by 2023)



THE RIVER GANGA AS PER DETAILS AVAILABLE ON IWAI

4. THE STRETCH BETWEEN HALDIA > FARAKKA IN NW-1, CERTAINLY HAS CARGO CARRIAGE POSSIBILITIES. CROSS RIVER 200+ PAX RO-PAX VESSELS & FOR CARRIAGE OF PERSONAL VEHICLES LIKE MOTOR CYCLE, CYCLES IS POSSIBLE.
 1. POSSIBILITY OF CARRIAGE OF CARGO IS CERTAIN. BULK, CONTAINERS, CARS (CAR-CARRIERS)
 2. TOURISM AND CROSS-RIVER PAX CARRIERS WITH 2.0m ~ 2.5m DRAFT WITH 300+ PAX IS POSSIBLE.
 3. DECK LOADING, 2(OR 4 x) x THRUSTER DRIVE GIVEN POSSIBILITY OF FLOATSAM IS VERY HIGH.
 4. CARHO HOLDS WITH WETHER TIGHT H/COVERS IS A POSSIBILITY. POLYMER H/COVERS AS ON THE MISSISSIPPI?
 5. SHIPYARD NORTH OF FARAKKA (IN VICINITY) MAKES FOR EASE OF MAINTENANCE & LOCAL BUSINESS GENERATION.
 6. DEDICATED PASSENGER/CARGO VESSEL DESIGNS. JUMBOISATION PLAN IS NOT CRITICAL FOR THIS ROUTE.
 7. HALDIA > FARAKKA. THE CHALLENGE ON THIS ROUTE WILL BE SAILING THROUGH TIDAL/SEAWATER TILL TRIBENI AND THEN FRESHWATER TILL FARAKKA. CORROSION LEVELS WILL BE HIGH FOR STEEL HULL.
 8. LONG HAUL PASSENGER TOURISM VESSELS IS A DEFINITE POSSIBILITY.

MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 5/6



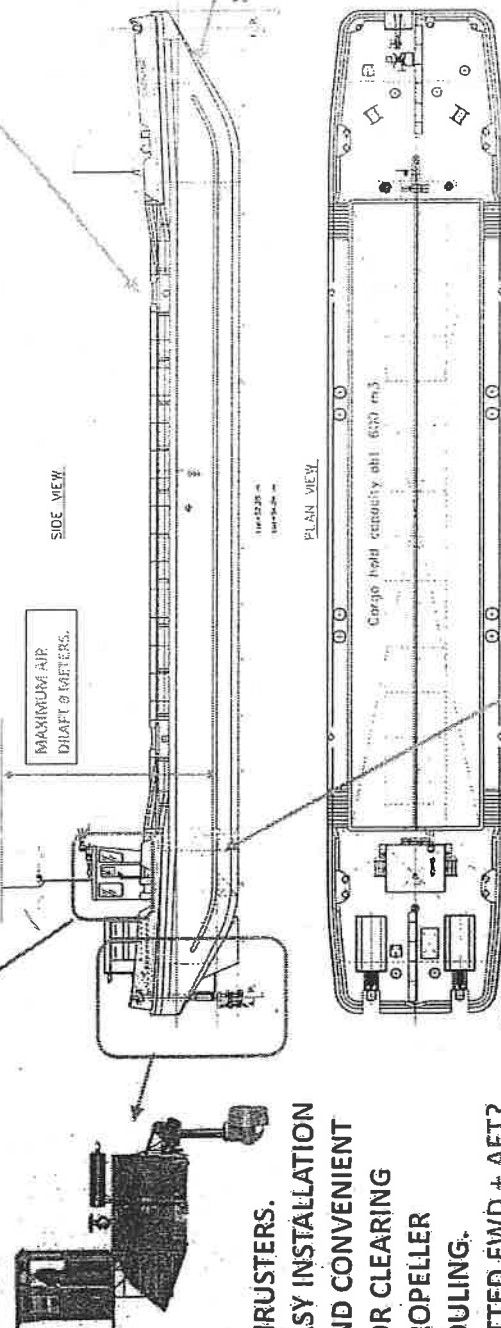
3-D STRUCTURE SCANNER:

1. ENABLES REAL TIME MAPPING OF THE RIVER BED.
2. IDENTIFIES FISH DENSITY AND LOCATION.



USE OF 1 – 5 TON HEAVY DUTY BAGS FOR EASY END-TO-END TRANSPORT OF BULK CARGO AND REDUCED CARGO SPILLAGE?

PREFERRED DESIGN OF NW-1 RIVER BARGE (FOR ILLUSTRATION ONLY)



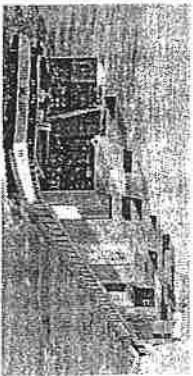
THRUSTERS.
EASY INSTALLATION
AND CONVENIENT
FOR CLEARING
PROPELLER
FOULING.
FITTED FWD + AFT?
LIMITED TURNING
CIRCLE?

TIN FREE ANTI
FOULING PAINT.

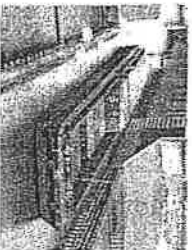
FITTING NON-CHEMICAL BASED IN-SERVICE
CLEANING OF THE GANGA. A MINOR
CONTRIBUTION ... KILLING BIOCIDES.

MAKING NW-1 SUCCESSFUL.

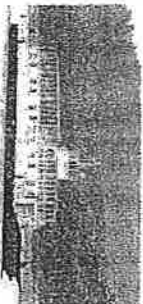
7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 6.1/6



CONTAINER CARRYING BARGES. DECK MOUNTED. ISO TANKS FOR CHEMICALS, MEDICINES, FINISHED PRODUCTS. THESE CAN ALSO BE USED FOR CARRYING DECK BULK CARGO, BAGGED OR IN BULK. ON RETURN PASSAGES CAN CARRY FARM PRODUCE LIKE VEGETABLES, FRUITS ETC.



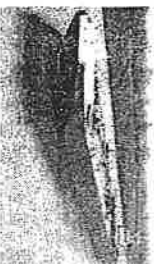
CONTAINER CARRYING BARGES. IN HOLD. THESE CAN ALSO BE USED FOR CARRYING DECK BULK CARGO, BAGGED OR IN BULK. HATCHCOVERS AS USED ON THE MISSISSIPPI.



RO-PAX VESSELS FOR CROSS-RIVER OR ON VOYAGES ARE CRITICAL FOR LOCAL ECONOMY. THE 'RO' SHOULD MEAN BICYCLES, SCOOTER, MOTORCYCLES, CARS AND ONCE DESIRED DRAFT IS ACHIEVED TRUCKS TOO.



COAL CARRIAGE FOR POWER PLANT AS AND WHEN THEY COME UP. THIS DECK LOADING OF COAL ON BARGES. OFTEN USED IN INDONESIA. CAN BE USED FOR STEEL COILS ETC.



OIL TANKERS, OR COMMONLY VALLED TANK BARGES.

THREAT : RETURN CARGO IS A MUST. THUS HAVING BARGES WHICH ARE MULTIPURPOSE IS A MUST.

MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 6.2/6

MAKING NW-1 SUCCESSFUL.

7. THE BUSINESS – MAKING IT A BUSINESS SUCCESS. 6.1/6

CONTAINER CARRYING BARGES. DECK MOUNTED. ISO TANKS FOR CHEMICALS, MEDICINES, FINISHED PRODUCTS. THESE CAN ALSO BE USED FOR CARRYING DECK BULK CARGO, BAGGED OR IN BULK. ON RETURN PASSAGES CAN CARRY FARM PRODUCE LIKE VEGETABLES, FRUITS ETC.

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OIL TANKERS, OR COMMONLY VALLED TANK BARGES.



VESSEL DESIGN :

SINCE THESE ARE RIVER VESSELS AND GIVEN THE LOW DRAFT REDUCED SCANTLINGS AS PER RULE WILL APPLY. TO PREVENT DAMAGE TO VESSEL STRUCTURE THE CARGO HANDLING SYSTEMS WILL NEED TO ADAPT.

CARGO HANDLING SYSTEM:

ALMOST ALWAYS THESE SYSTEMS ARE DESIGNED FOR THE INTENDED PURPOSES AND RARELY HAS THE 'TRANSPORTER' FACTORED IN. THIS WILL NEED TO CHANGE TOO.

MAKING NW-1 SUCCESSFUL.

FINALLY, INDIA IS NOT A LAND RICH COUNTRY.



But India has yet to develop its considerable land resources potential.

Ref: <https://www.bbc.com/news/health-19999999> COMPARISON TO USA, EUROPE & CHINA AS A RE-TINK?

	AREA (Million Sq. Km)	POPULATION (Million)	Sq. Km/PERSON	INDIA %age of
CHINA	9.597	1.350	0.0071	35.03%
EUROPE	10.18	741	0.0137	18.13%
USA	9.834	327.16	0.0301	8.28%
INDIA	3.287	1.320	0.0025	

IT IS CLEAR FROM THE ABOVE DATA THAT IN INDIA, THE LAND AVAILABLE PER PERSON IS VERY SMALL WHEN COMPARED TO THE COUNTRIES WE COMPARE OURSELVES TO. WHEN THIS IS APPLIED TO INDIA'S MARITIME AND WATERWAYS UTILISATION WE HAVE NO OTHER OPTION BUT TO BE "INNOVATIVE" AND USE INDIGENOUS (MAKE IN INDIA) METHODS, IN TUNE WITH OUR BIO-SPHERE.

1. CREATING BRIDGEPORTS TO ENABLE EASE OF MULTIMODAL TRANSPORT WITHOUT IMPACTING LAND USAGE. BRIDGEPORTS TO BE ADOPTED BY MAJOR PORTS TO ENABLE INCLUDE DECADES OF LEARNING.
2. FISHFARMS TO BE MADE IN CONCRETE TANKS IN THE SAME RIVERS. PREVENTS WATER SHOCK AND ENABLES PPP MODEL OF RESPONSIBILITY AND THUS SUCCESS.
3. TREATING SEWER WATER WHICH IS FLOWING INTO THE GANGA CAN BE DIRECTED INTO CONCRETE FLOATING OR 'DOCKED' TANKS WHERE THEY CAN BE TREATED (NON-CHEMICALLY) AND THE EFFLUENT LET INTO THE RIVER.

MAKING NW-1 SUCCESSFUL.

CMET: 33 years in functional Maritime repairs, installation, fabrication.

Girish, Padnabhan, Sailesh & Sanjay are 1979-1983 alumni of DMET/Kolkata (Now called Maritime Education and Training Institute). Went out to sail on ocean going ships before starting their humble entrepreneurial SHIP REPAIR workshop in 1995. Since then they have repaired and fabricated systems required for marine vessels and today employ about 80 skilled and semi skilled personnels. Over the last decade CMET has diversified into HYDRAULICS which finds application in the MARINE and SHORE installations.

HIRAKESH CHANDRA ROY (HC): 35 years functional experience in Marine operations, technical and management.

A 1979-1983 alumni of DMET/Kolkata (Now called Maritime Education and Training Institute). Went out to sail on ocean going ships for 12 years. Worked ashore in Hongkong, Malaysia, Singapore, Saudi Arabia and the USA. Started and Headed SHIP MANAGEMENT COMPANIES between 2004 through 2011 as CEO/MD. Took the entrepreneurial plunge knowing India is a reliable destination and can deliver world class products and services. Currently on the board of (1) a maritime design company & (2) a company which has commenced study of maritime data using DL/ML/AI ... this company is in her nascent stage of our first 'Proof of concept'.

28-05-2018

Received	Chishna.S.
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