

# INLAND WATERWAYS AUTHORITY OF INDIA


Ministry of Shipping, Government of India

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## “CAPACITY AUGMENTATION OF NATIONAL WATERWAY.1” (Jal Marg Vikas Project)

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### ENVIRONMENTAL IMPACT ASSESSMENT REPORTS



### VOLUME-3D: CONSOLIDATED EIA (Stakeholders Consultations)

May 2016

(Revised September 2016)



Since 1998

EQMS India Pvt. Ltd. In JV with IRG Systems South Asia Pvt. Ltd. Abnaki Infrastructure Applications & Integrated Development Pvt. Ltd.



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<b>Abbreviations</b>	
µg/m <sup>3</sup>	Microgram per cubic metre
A	Ampere
AAQ	Ambient Air Quality
AD	Amphibian Dredger
amsl	above men sea level
APHA	American Public Health Association
AWPCPL	Allahabad Waste Processing Company Pvt. Ltd
BCM	Billion Cubic Microns
BDU	Below Detection Unit
BDU	Best Designated Unit
BHDs	Backhoe Dredgers
BHU	Banaras Hindu University
BOD	Biochemical Oxygen Demand
BOQ	Bill of Quantity
BTKM	Billion Tonne Kilometres
BUIDCO	Bihar Urban infrastructure development Corporation Ltd.
BWE	Ballast Water Exchange
BWMP	Ballast Water Management Plan
BWP	Ballast Water Performance
CBWTF	Common Bio Medical Waste Treatment Facility
CEC	Cation Exchange Capacity
CERs	Critical Environmental Resources
CGWA	Central Ground Water Authority
CGWB	Central Ground Water Board
CIFRI	Central Inland Fisheries Research Institute
CIWTC	Central Inland Water Corporation Limited
cm	centimetre
CNG	Compressed Natural Gas
CO	Carbon Monoxide
COD	Chemical Oxygen Demand
CPCB	Central Pollution Control Board
Cr	Crore
CRZ	Coastal Regulation Zone
CSD	Cutter Section Dredgers
CTE	Consent to Establish
CTO	Consent to Operate
cum	cubic metre
dBs	Decibels
DEAC	District Environmental Impact Assessment Committee
DEIAA	District Environmental Impact Assessment Authority
DEM	Digital Elevation Model
DFCCIL	Dedicated Freight Corridor Corporation of India Limited
DFO	District Forests Officer
DFR	Detailed Feasibility Report

DG	Diesel Generators
DGPS	Differential Global Positioning System
DO	Dissolved Oxygen
DWT	Dry Weight Tonnage
DWT	Dead Weight Tonnage
E	East
EC	Electrical Conductivity
EDFC	Eastern Dedicated Freight Corridor
EHS	Environment, Occupational Health and Safety
EIA	Environmental Impact Assessment
EMoP	Environmental Monitoring Plan
EMP	Environment Management Plan
EPC	Engineering Procurement Contractor
ESAs	Ecologically Sensitive Areas
ESC	Environment and Social Cell
ESS	Electrical Sub stations
FBP	Farakka Barrage Project
GHG	Green House Gases
GRIHA	Green Rating for Integrated Habitat Assessment
GIS	Geographical Information Systems
gm	Gram
Gol	Government of India
GPS	Global Positioning System
GRB	Ganga River Basin
GW	Ground Water
ha	Hectare
HAD	Haldia Development Authority
HC	Horizontal Clearance
HDC	Haldia Dock Complex
HDPE	High Density Poly Ethylene
HFL	Highest Flood Level
hpa	Hectopascal
HPC	Name of a Consultant
hrs	hours
HSD	Hydraulic Surface Dredger
IARI	Indian Agricultural Research Institute
IBA	Important Bird Areas
IESWM	Institute of Environmental Studies & Wetland Management
IITs	Indian Institute of Technology
IMD	India Meteorological Department
IMDG-code	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
INTACH	Indian National Trust for Art and Cultural Heritage
IRS	Indian Remote Sensing Satellite
IS	Indian Standards Published by Bureau of Indian Standards

ISRO	Indian Space Research Organization
IUCN	International Union for Conservation of Nature
IWAI	Inland Waterways Authority of India
IWC	International Whaling Commission
IWT	Inland Waterway Transport
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
kgs	Kilograms
KLD	Kilolitre per Day
km	kilometre
KMC	Kolkata Municipal Corporation
kmph	Kilometre per Hour
KoPT	Kolkatta Port Trust
KoPT	Kolkata Port Trust
KW	Kilo watt
LAD	Least Available Draft
LC	Level Crossing
Leq	Equivalent continuous sound pressure level in dB
LPG	Liquid Petroleum Gas
m	Metre
M	Million
MARPOL	International Convention for the Prevention of Pollution from Ships
meq	Milli equivalent
mg/l	Milligram per litre
mg/l	Milligram per litre
µg/m <sup>3</sup>	Microgram per cubic metre
mL	Millilitre
MLD	Millions of Litres Per Day
mmhos/cm	Mili mho/ centimetre
MoEF&CC	Ministry of Environment & Forests & Climate Change
mpn/100 ml	Most Probable Number/100 millilitre
MSIHC	Manufacture Storage import of Hazardous Chemicals
MSW	Municipal Solid Waste
MSW	Municipal solid Waste
MT	Metric Tonnes
MTPA	Million Tonne Per Annum
N	North
NAAQS	National Ambient Air Quality Standards
NABL	National Accreditation Board for Testing and Calibration Laboratories
NCAER	National Council of Applied Economic Research
NGBRA	National Ganga Basin River Authority
NGO	Non-Government Organization
NH	National Highway
NMCG	National Mission for Clean Ganga
NOC	No Objection Certificate
Nox	Oxides of Nitrogen

NRCD	National River Conservation Directorate
NTPC	National Transport Policy Committee
NTU	Nephelometric Turbidity Unit
NW	National Waterways
NW	North West
°C	Degree Celsius
PCC	Portland Cement Concrete
PCCF	Principle Chief Conservator of Forests
PIANC	World Association for Waterborne Transport Infrastructure
PM	Particulate Matter
PMC	Patna Municipal Corporation
PMU	Project Management Unit
ppb	parts per billion
ppm	parts per million
PPP	Public Private Partnership
PWD	Public Works Department
QA/QC	Quality Assurance/Quality Check
RCC	Reinforced Cement Concrete
RET	Rare Endangered and Threatened Species
RIS	River Information System
UTES	Name of Govt. Consultancy Organisation
ROB	Rail Over Bridge
RO-RO	Roll on and Roll Over
RWH	Rain Water Harvesting
S	South
SAV	Submerged Aquatic Vegetation
SC	Schedule Caste
SE	South East
SEAC	State Expert Appraisal Committee
SEIAA	State Environmental Impact Assessment Authority
SH	State Highway
SO <sub>2</sub>	Sulphur Dioxide
SPCB	State Pollution Control Board
Sq.km	Square kilometre
ST	Schedule Tribe
STP	Sewage Treatment Plant
SW	Surface Water
SWDS	Solid Waste Disposal Site
TDS	Total Dissolved Solids
TKM	Tonne Kilometres
TPD	Tonnes per Day
TPP	Thermal Power Plant
TSDF	Treatment Storage and Disposal Facilities
TSHDs	Trailer Suction Hopper Dredger
UNDP	United Nations Development Programme

UP	Uttar Pradesh
USA	United States of America
USDA	United States Department of Agriculture
USEPA	United State Environment Protection Authority
VBREC	Vikramshila Biodiversity Research and Education Centre
VC	Vertical Clearance
VECs	Valued Environmental Components
VMC	Varanasi Municipal Corporation
W	West
WB CZMA	West Bengal Coastal Zone Management Authority
WDSC	Whale and Dolphin Conservation Society
WHC	Water Holding Capacity
WNW	West North West
WWF	World Wide Fund for NGO

**Disclaimer:**

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## SUMMARY

### Public Consultation and Disclosure

#### 1.0 Public Consultation and Disclosure

Stakeholder's view and perception was assessed through informal and formal public consultation meetings. The different stakeholders viz. Govt. officials, NGOs, Village Panchayats (Village Administration), people (male, female) were contacted and consulted during the course of the study. Stakeholders were informed about the project components and likely environmental impacts before seeking their views. In each consultation all efforts were made to have adequate participation from women as well. Consultations has been carried out for the project in two stages. First stage consultation was undertaken during impact assessment process to identify the concerns of people which were duly addressed through appropriate mitigation measures. Second stage consultation was undertaken after preparation of EIA report so as to assess the adequacy and acceptability of the proposed mitigation measures and management plan. Public consultations ensured involvement of public, NGO, experts in the project's pre-planning stage itself and addressal of their concerns and expectation from the project.

The community members, Government officials and NGO members voiced that the proposed project will contribute in social and economic development of the region. The proposed project shall contribute to increase employment opportunities for the local people during and after project implementation. The communities welcomed the project and all were in favour of the project. However, some of the fishermen and land holders have raised some concerns about the fishing activities/yield and the compensation to be given. Major issues highlighted during consultation were adequate compensation against the land, loss of livelihood, provision of alternate employment, river water pollution, fish yield and disruption of fishing activities. Each of the issues raised by stakeholders were analysed for practical and scientific basis, and evolving appropriate mitigation, management and monitoring plan, depending on its importance and practicality.

An executive summary of consolidated EA report is available for public view in local language (Hindi and Bengali) versions at IWAI website. EIA report for entire Jal Marg Vikas Project and its executive summary is also disclosed at IWAI website and as per provisions of World Bank disclosure policies. A brief table illustrating the key concerns of the informal stakeholders is given below in **Table 1**.

**Table 1: Summary of Key Concerns raised by stakeholders and its redressal**

S. No.	Key Concerns	Redressal
<b>Social Concerns</b>		
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

		<p>measures includes:</p> <p>Technical Support for enhancing fish productivity by setting up demonstration nurseries and training centre through institute of repute like CIFRI</p> <p>Regulated/slow speed of vessel at select locations and Zero Pollution approach from vessel and terminals</p> <p>Intimation of dredging/piling plan to fishermen community prior to carrying out any activity</p> <p>Provision of sirens and strong search lights in vessels/barges to pre-warn the fishermen</p>
	Provision should be made for adequate compensation for land acquisition wherever involved.	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.
	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.
	People demanded support for the improvement in and around local immersion Ghat 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 measures. Additional enhancement measure has been proposed for small enclosed areas dedicated for female bathing in every village along the NW-1 to allow female maintain their privacy while fulfilling their religious belief of bathing in river Ganga.
<b>Environmental Concerns</b>		
2	People raised concern that the terminal development may lead to increase of traffic on the connecting roads which are not	Project design has considered this aspect and adequate provision is made for developing access road to the terminals to avoid any kind of

	suitable for such an increased load and needs to be upgraded.	congestion at each terminal sites.
3	Turtle will get impacted 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 110-140dB. 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 turtle.
	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 either side of the river confluence areas for any dredging activity. Other measures are also proposed in management plan to reduce the impact on dolphins and other aquatic fauna.
4	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 proposed to discharge any of its liquid or oily waste in the river. Emergency response plan is proposed to deal with emergency situations to minimize the impact of emergency situations. It is also proposed to mandate that each vessel would have appropriate sewage treatment, treated sewage storage and waste management

		facilities to prevent water pollution.
5	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.
9	People raised concern about cutting of large no. of tree at Sahibganj site.	Compensatory tree plantation (1:7) basis at Sahibganj and additional plantation is proposed to be undertaken. At all the terminal/jetty site green belt will be developed to the extent possible. This will help in minimizing the impact and will lead to reduced impact of CO <sub>2</sub> .
11	The varying LAD may lead to grounding of vessels.	LAD is proposed to be maintained in 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 raised the concern about existing erosion problem in the Farakka feeder canal and raised 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 is proposed to be undertaken on banks of feeder canal to prevent the erosion.
15	People have suggested to make appropriate parking facilities inside the proposed terminals for better management of goods carriers and reduce traffic on existing road due to inappropriate parking on the public roads.	Adequate parking provisions is proposed in each terminal site design.
16	People have proposed to make adequate provisions of 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.



## Chapter 1. PUBLIC CONSULTATIONS AND DISCLOSURE

### 1.1. Introduction

Public consultation is one of the key components of the environmental assessment. The environmental and social impact assessment team conducted public consultations in project site and influence areas. The approach involved a mix of conventional as well as participatory/ rapid rural appraisal (PRA/ RRA), focus group discussions (FGD) and one-to-one discussion. Two stage consultations have been carried out in line with World Bank Guidelines for conducting public consultations. First level consultations were carried out prior and during impact assessment studies and second level consultations was carried out after completion of impact assessment studies.

This chapter provides details of the public consultations and participation activities undertaken during the environmental and social impact assessment studies for the project “Jal Marg Vikas” extending from Allahabad to Haldia. During public consultation, emphasis was placed on a fully-inclusive, open and transparent public participation process in the transfer of information regarding the project and likely impacts from the project on each component of environment. A number of stakeholders are involved in this project ranging from the locals, local bodies, state & central level Government agencies and Non-Government Organizations.

### 1.2. Methods of Public Consultation

#### 1.2.1. First Stage Consultations

Both the informal and formal consultations were conducted during the EIA study to obtain the views of people about the project and to ensure their involvement. Issues pertaining to both environment and social were discussed in depth during the consultations.

##### a. Informal Consultation:

Informal consultations were carried out between June, 2015 to February, 2016, prior and during the EIA studies of different components of the Jal Marg Vikas project. Informal consultations are undertaken in reference to proposed interventions and activities of NW-1 at respective locations. One to one and focused consultations were conducted following informal interview approach. No questionnaires/ brochures were supplied to the participants.

The discussions were primarily focused on receiving maximum inputs from the participants regarding their acceptability and environmental concerns arising out of the project. Consultation was started with the short description of the upcoming project components under Jal Marg Vikas Project. The objectives, proposed developments and the possible impacts of the project components and connectivity aspects of the project were also explained. The study team recorded their perceptions, demands and recommendations, about the project. Informal consultation was carried out for different planned components at different time periods. The detail of the same are given in **Table 1.1**.

**Table 1.1 : Details of Developmental Activity and Period of Public Consultation**

S. No.	Details of Developmental Activity	Period
1.	Haldia Terminal	Sep, 2015

2.	Farakka Lock	June, 2015
3.	Sahibganj Terminal	July-Nov, 2015
4.	Varanasi Terminal	Oct-Nov, 2015
5.	Movement of Barges in Buxar & Patna Area	Feb, 2016

Visit was made to the villages and offices of the local bodies, Government officials, Universities and NGOs to interact with different stakeholders and obtain their views. Local people interacted includes farmers, fishermen, boatmen, land owners, cultivators and students. Interaction with females was also done during the informal focused group discussions. During the consultation, it was found that people are aware about the IWAI planning for development of terminals, navigation lock, and navigation channel. Following briefing about the project and its likely impacts on environment, people were asked about their views, issues and expectation from the project. Focus on both environmental and social issues was given during the consultation.

#### b. Formal Consultation

Formal consultations were carried out for the interventions sites where large land acquisition is involved. Two large scale consultations have been carried out, one for Farakka Lock development on 9th October, 2015 at Bewa Panchayat, Farakka and second for Sahibganj Terminal on 16th October, 2015 at Ashram, Samda Nala village, Sahibganj. Invitation letter were sent through e-mail letters well in advance. Additionally, invitation letters were also given in person to local bodies, Government officials & NGOs for attending the public consultation, much before the formal public consultation meeting. Locals were given invitation by personally visiting the villages. List of the stakeholders invited for the consultation meeting at Farakka Lock and Sahibganj Terminal are attached as **Annexure 1.1**. Copy of one invitation letter sent to stakeholder is attached as **Annexure 1.2** for reference.

#### 1.2.2. Second Stage Consultations

Second stage public consultation was carried out after the completion of impact assessment studies on 22nd February, 2016 at Morya Hotel, Patna. Second stage public consultation was carried out with the experts, NGOs, Government Officials, prominent personalities, and other interested parties for interaction on EIA findings (identified impacts and proposed mitigation measures) to get their opinions and suggestion for enhancing the acceptability of the project by the public and improvement in mitigation and management plan.

#### 1.3. Objective of Public Consultation

The public consultations were conducted with the following objectives:

- To create awareness and generate understanding about the project among stakeholders, and to collect their opinion, suggestions for planning and designing of the project
- To assess positive as well as adverse socio economic and environmental impacts in the area through participatory methods such as walk through and focus group discussions.

- To identify the need and concern of the public
- To assess cultural patterns and behaviour of local communities towards the project
- To understand the environmental and social issues associated with the project through discussions
- To understand suggestions and opinions of the community, Government officials and NGOs on mitigation measures to counter and check the adverse and negative impact that threaten the socio economic environment in the area.
- To understand the satisfaction level of people with proposed mitigation and management measures proposed for the project

Summary of consultation:

#### 1.4. Outcome of Informal Stakeholder Consultation

People are supportive of the project in general. Extract of the informal public consultation meetings held are attached as **Annexure 1.3**. Main concerns raised during the consultation with redressal measures is given at **Table 1.2**. Photographs of informal public consultation are given in **Figure 1.1**

**Table 1.2 : Summary of Key Concerns raised by Stakeholders and its redressal.**

S. No.	Key Concerns	Redressal
<b>Social Concerns</b>		
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 includes:  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 search lights in vessels/barges to pre-warn the fishermen

	Provision should be made for adequate compensation for land acquisition wherever involved.	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.
	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.
	People demanded support for the improvement in and around local immersion Ghat at Durga Chak (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 measures. Additional enhancement measure has been proposed for small enclosed areas dedicated for female bathing in every village along the NW-1 to allow female maintain their privacy while fulfilling their religious belief of bathing in river Ganga.
<b>Environmental Concerns</b>		
2	People raised concern that the terminal development may lead to increase of 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 sites.
3	Turtle will get impacted 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 should 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 turtle.

	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 either side of the river confluence areas for any dredging activity. Other measures are also proposed in management plan to reduce the impact on dolphins and other aquatic fauna.
4	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 proposed to discharge any of its liquid or oily waste in the river. Emergency response plan is proposed to deal with emergency situations to minimize the impact of emergency situations. It is also proposed to mandate that each vessel would have appropriate sewage treatment, treated sewage storage and waste management facilities to prevent water pollution.
5	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.
9	People raised concern about cutting of large no. of tree at Sahibganj site.	Compensatory tree plantation (1:7) basis at Sahibganj and additional plantation is proposed to be undertaken. At all the terminal/jetty site green belt will be developed to the extent possible. This will help in minimizing the impact and will lead to reduced impact of CO <sub>2</sub> .
11	The varying LAD may lead to grounding of vessels.	LAD is proposed to be maintained in 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 raised the concern about existing erosion problem in the Farakka feeder canal and raised the apprehension that the NW-1 development and barge movement	Provision has been made in the project design for bank protection work of 9.438 km are proposed to be undertaken on banks of feeder canal to prevent the erosion.

	may escalate this problem.	
15	People have suggested to make appropriate parking facilities inside the proposed terminals for better management of goods carriers and reduce traffic on existing road due to inappropriate parking on the public roads.	Adequate parking provisions is proposed in each terminal site design.
16	People have proposed to make adequate provisions of 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.



**Session 1: Consultation with Boatmen and Fishing community**



**Session 2: Consultation with Boatmen, Sqatters and Fishing community**



**Session 3: Consultation with Boatmen and Fishing community**



**Photograph of Baluva Ghat**



**FGD at Gharaipara Village with local villagers.**



**Socio-economic survey carried out by AIAD representative**



**Consultation with villagers in Ashram, Rampur and Samdhanala**



**Consultation with villagers in Ashram, Samdhanala**



**Consultation with villagers in Samdha nala, Naya Tola Asram**



**Consultation with fishermen in Sahibganj**



**Consultation at Samda Nalla Ghat**



**Consultation in Village Rampur**



**Consultation with fishery Department**



**Consultation with Villagers in Rampur**



**Consultation with Villagers in Village Area & Ashram in Rampur Village**



**Stakeholder Consultation with Mr. Purnendu S. Naskar at HDA office Haldia**



**SC with Haldia Municipality Chairman Office at Haldia.**



**FGD with local residential at Durgachak, Haldia**



**SC with Haldia Block Development Officials at Haldia**



**KII with local fishermen at Durgachak, Haldia**



**Photo from project location at Durgachak, Haldia**

<p><b>Bisarjani Ghat at Durgachak which located in nearby proposed project site.</b></p>	<p><b>Consultation with fisherman</b></p>
<p><b>Consultation with Fisher man</b></p>	<p><b>Consultation with boat man near Pathakali ghat</b></p>
<p><b>Consultation with locals at Ram Rekha Ghat, Buxar</b></p>	<p><b>Consultation with locals at Adi Nath Ghat, Buxar</b></p>
<p><b>Consultation with locals at Gai Ghat, Patna</b></p>	<p><b>Consultation with WII, IWAI Officials and DFO, Kashi</b></p>

**Figure 1.1 : Photographs of Informal Consultations**

### 1.4.2. Formal Public Consultation Meetings

Formal public consultation was conducted for Terminal at Sahibganj & Lock at Farakka. Formal consultation at Sahibganj was conducted on 16th October, 2015 in Ashram, Samda Nala village, Sahibganj. Formal consultation at Haldia was conducted on 9th October, 2015 at Bewa Panchayat, Farakka. Request for support and participation in public consultation meeting was sent to stakeholder, Grampanchayat, Project Affected Families (PAF) and Local Administrations. Some of the stakeholders were invited by giving invitations personally. Villagers were invited through Gram Sarpanch and also by giving door to door invitations.

#### **Formal Consultation in Sahibganj**

Meeting was started with brief introduction about the project by Mr. Ravi Kant, Director IWAI, Patna. At the community meetings information on the socio-economic studies, environmental impact studies and other engineering related to the proposed terminal of IWAI were discussed. He requested stakeholders to cooperate and provide information to these teams for facilitating their studies. The stakeholders and community members were then given an opportunity to raise their concerns regarding the proposed project. About 700 people participated in the PCM. Meeting was attended by Government officials, PAF's, World Bank Officials, IWAI Official, Environment and Social Impact Assessment team and General public. The summary of the key concerns/views and observations of the different stakeholders are presented in **Table 1.3**. Photographs of the formal public consultation meeting are given in **Figure 1.2**. Attendance sheet for the PCM is attached as **Annexure 1.4**.

**Table 1.3 : Summary of Formal Public Consultation Meeting at Sahibganj**

Sl. NO.	Person Name/organization, Phone, Address	Outcome (concerns and suggestions) / Views
1	<b>Person/ Organization:</b> Shri K.K. Tiwari <b>Designation:</b> Divisional Forest Officer, Sahibganj <b>E mail:</b> sbgforest@gmail.com <b>Phone:</b> 09431306331 <b>Address:</b> Divisional Forest Office, Sahibganj, Jharkhand	Shri K.K. Tiwari told that the area behind the terminal site is protected forest. He told that forest department has plans to carry out afforestation and grasses/shrubs in 5 km area of the Ganga River and along the Railway lines in Udhwa Region for benefit of livelihoods of local communities. Also forest department has plan to develop wetland. His concerns about the project development are <ol style="list-style-type: none"> <li>1. Dolphins will be impacted due to the movement of cargo so mitigation measures should be taken to minimize the accidents</li> <li>2. Water pollution may result due to disposal of sewage from terminal and from vessels and disposal of solid and other waste in River Water. Thus mitigation measures and management plan should be prepared to prevent water pollution.</li> <li>3. Surveys should be carried out to identify the breeding and spawning grounds of fishes and project activities should not be undertaken in those regions</li> <li>4. Construction activities should not be carried out during spawning and breeding seasons</li> <li>5. Piling and construction within water should</li> </ol>

		<p>be carried out during low flow period</p> <p>6. Measures should be taken to minimize the impact of the project on aquatic organism</p>
21	<p><b>Person/ Organization Consulted:</b> Shri Jayant Ranjan <b>Designation:</b> District Fisheries officer <b>Phone:</b> 09835031630 <b>Email:</b> jayant.ranjan21@gmail.com <b>Address:</b> Department of Fisheries, Sahibganj</p>	<p>Shri Jayant Ranjan raised the following concerns:</p> <ol style="list-style-type: none"> <li>1. About 5000 fishermen depend on River for their livelihood</li> <li>2. Major fish species in the area are Indian Major carps, singhi, shrimps, Mystus sp. catfishes, tengra etc. These are commercially important species. Project development may affect the production of fishes in the River and will affect the livelihood of people</li> <li>3. Breeding and spawning grounds of the fishes should be identified and care should be taken that no development should be carried out in these regions</li> <li>4. Dolphins are very sensitive and care should be taken that minimum disturbance should be caused to dolphins</li> <li>5. Mechanism should be developed for river clean up during accidents, oil spills, spillage etc.</li> <li>6. Dredged material should be disposed in safe places and dumping should not be carried out on banks as these are habitat to various important species.</li> <li>7. Fish catch may reduce due to increase in water pollution due to project development</li> <li>8. Project may increase the export of frozen fishes and also there is potential for growth of commercial fisheries</li> </ol>
4.	<p><b>Person/ Organization:</b> MrsMunni Gaud <b>Phone:</b> 07808789116, 7070603324</p>	<p>Mrs. Munni Gaud raised the following concerns:</p> <ol style="list-style-type: none"> <li>1. Appropriate compensation should be given to the land owners</li> <li>2. Alternate employment options should be provided to people who are losing their complete land</li> <li>3. Developments should be carried out in the nearby areas also for development of villages</li> <li>4. Fishing activity should not be restricted after development of terminals</li> <li>5. Farmers practising river terrace agriculture should not be stopped</li> </ol>
5.	<p><b>Person/ Organization:</b> Mrs Usha Khalkoo <b>Phone:</b> 9801018326,9801352024 <b>Address:</b> Gram Panchyat Head, Hathigarhi</p>	<p>Mrs. Usha Khalkoo raised the following concerns:</p> <ol style="list-style-type: none"> <li>1. Villagers are opposing the project as they are losing their land and they do not have any alternate employment option and are completely dependent on agriculture for their livelihood</li> <li>2. Compensation should be given to villagers as per prevailing market rate, then they may get interested in selling their land</li> <li>3. Alternate livelihood options should be</li> </ol>

		<p>provided to affected people</p> <p>4. Pollution should not increase at the site and nearby areas due to project development</p>
6.	<p><b>Person/ Organization:</b> Mr Niranjan Kumar  <b>Designation:</b> Additional Deputy Collector + Land Acquisition officer, Sahibganj  <b>Phone:</b> 09431306331  <b>Location/ Address:</b> District Collectorate Office Sahibganj, Jharkhand</p>	<p>Mr. Niranjan Kumar informed the survey of land is under process and some more time is required to finalize the award list and land details.</p>
7.	<p><b>Person/ Organisation:</b> Mr Vishal Chandra  <b>Address:</b> Jharkhand  Rajya Vidut Vitran Nigam Ltd  Sahibganj Jharkhand</p>	<p>Mr Vishal Chandra raised the following points:</p> <ol style="list-style-type: none"> <li>1. He was in favour of project and said that the project is good for betterment of the area</li> <li>2. This project will increase the development opportunities in the area</li> <li>3. Shifting of LT line may be required from village which will be a challenging task</li> <li>4. IWAI should be responsible to compensate for shift of the utilities</li> </ol>
8.	<p><b>Person/ Organization:</b> Mr Sushil Kumar Executive Engineer PWD  <b>Address:</b> Public works Department Sahibganj, Jharkhand</p>	<p>Mr Sushil Kumar said that project is good for development of the area and raised the following points:</p> <ol style="list-style-type: none"> <li>1. Land acquisition will be the major hurdle for project development as one of the PWD project of road is also on hold due to difficulties in land acquisition</li> <li>2. No paved public road connects the site to the highway or other road. Also it is expected that traffic will increase in the area, thus to prevent dust generation and traffic congestion, it is required to construct minimum 4 lane road to connect site to NH-80.</li> <li>3. ROB should also be constructed above the railway line to allow smooth flow of traffic</li> <li>4. Green belt should be maintained along the approach road to suppress the dust generation</li> <li>5. Assessment of increase in traffic should also be carried out on existing roads so as expansion can be planned when required</li> </ol>
9.	<p><b>Person/ Organization:</b> Dr. Bhagwant Marandi  <b>Designation:</b> Chief Medical Officer  <b>Address:</b> CMO, Health Department, Sahibganj, Sahibganj, Jharkhand</p>	<p>Dr. Bhagwant said that in his point of view, project will lead to overall development of the area. Healthcare facilities will also increase in the area after development of project.</p>
10	<p><b>Person/ Organization:</b> Mr Safaij Reiz,  <b>Address:</b> Ganga pump Canal Nahar Pariyojna (Irrigation Department, Sahibganj, Jharkhand</p>	<p>He supported the project and said that project is beneficial for overall development of area and improvement of living standards of people.</p>
11.	<p><b>Person/ Organization:</b> Mr Faiku Ram  <b>Address:</b> District Mining Officer,</p>	<p>He supported the project and said that project is beneficial for overall development of area and improvement of living standards of people. He is</p>

	Sahibganj, Jharkhand	ready to extend his support to IWAI, if required
12.	<b>Person/ Organization:</b> Mr Vinay Kumar Mishra and (5 staff members) <b>Address:</b> District Land Acquisition Officer Sahibganj, Sahibganj, Jharkhand	He said that land acquisition is under process and they are trying to identify land near the village for relocation and resettlement of displaced families and facilities
13.	<b>Person/ Organization:</b> Mr Prashant Kumar Additional Director, IWAI and (6 staff members) <b>Address:</b> IWAI, Bhagalpur, Jharkhand	He gave confirmation to villagers that no additional land will be acquired for terminal construction. Land will be acquired as per law of land. He explained about the project to villagers and clarified the queries of people during meeting.
14.	<b>Person/ Organization:</b> Villagers of Samda Nala and Rampur village (Direct and Indirect Affected Persons)	Villagers were highly concerned and raised following points <ol style="list-style-type: none"> <li>1. They said that land should be acquired as per prevailing market rates</li> <li>2. Alternate employment options should be provided to people who are losing their land</li> <li>3. Land should be provided to affected people within or near village for relocation and resettlement</li> <li>4. Fishing should not be restricted in the River due to project development</li> <li>5. Employment opportunity should be provided preferably to local people</li> </ol>
15.	<b>Other Participant</b> Mrs. Abha Singal Joshi, Consultant World Bank Mrs. Mridula Singh, World Bank Mr Pranaykumar +2 persons from social team of IWAI Consultant Mr Krishna + 2 persons from Environment team of IWAI Consultant Media: Dainik Jagaran, Hindustan	





**Figure 1.2 : Photographs of Formal Consultation at Samda Nala Village, Sahibganj**

### ***Formal Consultation in Farakka***

Meeting was started with a brief about the project, objective of the Environmental and social impact assessment studies, associated likely environmental and social issues requiring attention for sustainable development. The stakeholders and community members were then given an opportunity to raise their concerns and suggestions regarding the proposed project. The summary of the key concerns/views and observations of the different stakeholders are presented in **Table 1.4**. Photographs of the formal public consultation meeting are given in **Figure 1.3**.

**Table 1.4 : Summary of formal Stakeholder Consultation, at Farakka**

SI. NO.	Person Name/organization, Phone, Address	Outcome (concerns and suggestions) / Views
1.	Kesang Dhendup Bhutia BDO & Block Executive Officer Farakka Block Development Office, Farakka, Murshidabad	<ul style="list-style-type: none"> <li>• BDO, Farakka, welcomed the project development and assured his and local administration cooperation for the project implementation.</li> <li>• Also mentioned that without addressing environmental and social concern/impact in a structured manner no project can be completed on time successfully.</li> <li>• Any kind of toxic pollution by the vessel like oil spillage and chemicals in the river water, transport emissions, needs to be considered.</li> <li>• The project implementing agency should be careful about river erosion during the vessels movement. River bank erosion has a permanent effect upon the socio-economic conditions and demographic dislocation.</li> <li>• As Farakka BDO, he appealed to the authority that they should provide jobs to the local unemployed youth based on their skill and should give business opportunities to the local people.</li> </ul>

		<ul style="list-style-type: none"> <li>• The access road needs to be widened and upgraded to ensure smooth traffic movement because it has an important link with NH-34. A traffic management plan needs to be in place.</li> <li>• He suggested that the project should employ local people in the proposed location on a priority basis provided they have the required skills.</li> <li>• The health safety and protection of labour and other community members should be considered on project site as well as nearest locality of the villages during the operation phase.</li> <li>• Also suggested for adequate mitigation measures in EIA/SIA to address to erosion if and where identified.</li> <li>• The public consultation meeting should be held at different places for awareness of the people and Grievance Redressal Committees should be active with timely conflict resolution.</li> <li>• The interviewee was optimistic that implementation of this project would change the current socio-economic scenario of the local communities.</li> </ul>
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2.	<p>Mr. Arnab Chakraborty Journalist (Malda &amp; Murshidabad Division) Uttarbanga Samgbad Farakka, Murshidabad</p>	<ul style="list-style-type: none"> <li>• He suggested that the project should employ local people in the proposed location on a priority basis provided they have the required skills.</li> <li>• The health safety and protection of labour and other community members should be considered on project site as well as nearest locality of the villages during the operation phase.</li> <li>• The interviewee was optimistic that implementation of this project would change the current socio-economic scenario of the local communities.</li> </ul>
3.	<p>Mr. Jahid Hussain Arun Director, Mahadevnagar Rural Welfare Society, Farakka, Murshidabad</p>	<ul style="list-style-type: none"> <li>• The authority can support them through livelihood restoration programmes.</li> <li>• Also suggested for safety and protection from the construction site near the locality of the villages and</li> <li>• The consensus described as during the construction period authority should consider the vulnerable health issues like HIV/AIDS because Murshidabad is one of the vulnerable health related district in West Bengal.</li> </ul>
4.	<p>Mr. Rana Dutta, IFS DFO Divisional Forest Office, Nadia &amp; Murshidabad Range Institutional Stakeholders consultation through KII (key informant interview)</p>	<ul style="list-style-type: none"> <li>• There is no forest conservation around the Farakka area.</li> <li>• The continuous turbulence and waves from plying vessel movement can cause river bank erosion. This is problem that is difficult to resolve in entire downstream</li> <li>• As a DFO gave the assurances that DFO range will give all help for smooth operation of the project activities.</li> </ul>
5.	<p>Community members of local Villages at PCM</p>	<ul style="list-style-type: none"> <li>• The villagers also informed that there is no forest area. Further, they did not anticipate any adverse impacts on their livelihood due to construction works.</li> <li>• They further opined that there would be positive impacts on the sources of livelihood due to increased economic opportunities which will provide good earning sources to the local families due to the project implementation. It was also informed that there is no Schedule Tribe (ST) population in the project area.</li> <li>• Representatives from Beoa panchayat extended their support during the construction and operational phase of the proposed project. -They also suggested that public consultation meetings should be held at different places for awareness of the people and Grievance Redressal Committee should be active with timely</li> </ul>



**Figure 1.3 : Photographs of Formal Consultation Meeting at Farakka**

### 1.5. Second Stage Consultation

Second stage consultation for the project was held at Patna on 22.02.2016 at Patna with IWA team, environmental and design consultants and experts of various fields. Identified impacts were discussed during the consultation and discussion was held on adequacy of the mitigation and management measures proposed. Suggestions were given and concerns were raised by the experts during the consultations. Suggestions and concerns are given in the **Table 1.5**. Photographs of the consultation are attached as **Figure 1.4**. List of invitee of the consultation is attached as **Annexure 1.5**.

**Table 1.5 : Summary of the Second Stage Consultation at Patna**

S. No.	Person Consulted	Concerns Raised
1	Mohd. Najeeb Ahsan, Sr. Social Management Specialist, National Mission for Clean Ganga	<p>Alignment of Jal Marg Vikas Project's Environmental Management Plans and afforestation plans with the DPR's of Namami Gange would be appropriate.</p> <p>Facilities of Ferry and Ro-Ro crossings should be examined in detail under the JMV Project.</p> <p>Provision of Water Ambulance for transportation of patients in congested cities.</p> <p>Disaster Management and Emergency Response System should be developed under the project.</p>

		<p>Plan for treatment of waste water and re-use should be developed.</p> <p>As traffic on NW-1 would increase in future; proper planning for deployment of river patrolling and security is required.</p> <p>Last mile connectivity should be examined properly.</p>
2	Dr. S. Samanta, Principal Scientist, CIFRI	<p>Documenting the impacts along the river and understanding the various relationships with the river is important.</p> <p>IWAI is also a stakeholder in river. As other stakeholders need water in river for different uses as irrigation, drinking etc., IWAI also require water for navigation.</p> <p>The role of the project on overall water management in the river must be clarified.</p>
3	Shri Vishva Ranjan, Urban Planning & Urban Development Specialist, Patna	<p>Environment friendly waste disposal mechanism is required for vessels.</p> <p>Need of a Charter for ensuring waste is not directly discharged in the river and third party monitoring to ensure the same.</p> <p>Waste management has been included in the draft revised Indian Vessels Act.</p>
4	Shri K. Praveen Rao, Chief Conservator of Forests-Kanpur, Department of Forest, U.P.	<p>Reconstitution of Project Oversight Committees with representation of appropriate Forest Officers.</p> <p>Afforestation along the banks of Ganga should be done under the project.</p>
5	Professor R.K Sinha, Head, Zoology Dept., Patna University	<p>Vessel traffic management system should be developed under the Project.</p> <p>Dolphins are National aquatic animals and are blind. Noise generated due to vessel movement should be controlled to avoid adverse impact on dolphins.</p> <p>Propellers on the vessels should be caged for safety of the dolphins</p>
6	Shri Rakesh Tiwary, Astt. Professor, A.N. Sinha Institute of Social Studies	<p>Proper planning should be done to maintain sufficient depth by conserving wet lands and constructing reservoirs (rain water harvesting) and releasing them in the river during lean season in the system.</p> <p>Long term modelling of rivers should be ensured to meet the water depth requirement</p> <p>Cumulative impact on the society due to the project should be studied in details and proper mitigation measures should be adopted</p>



Figure 1.4 : Photographs of Formal Second Stage Consultation Meeting at Patna

## 1.6. Conclusion and Disclosures:

Stakeholder's view and perception was assessed through informal and formal public consultation meetings. Two stage consultation has been carried out for the project. This ensures involvement of public, NGO, experts in the project's pre-planning stage itself and addressal of their problems and expectation from the projects.

The community members, Government officials and NGO members voiced that the proposed project will contribute in social and economic development of the region. The proposed project should contribute to increase employment opportunities for the local people during and after project implementation. The communities welcomed the project and all were in favour of the project. However, some of the fishermen and land holders have raised some concerns about the fishing activities/yield and the compensation to be given. Major issues highlighted during consultation were adequate compensation against the land, loss of livelihood, provision of alternate employment, river water pollution, fish yield and disruption of fishing activities. Each of the issues raised by stakeholders were analysed for practical and scientific basis, and for evolving appropriate mitigation measures, EMP, depending on its importance and practicality.

An executive summary of consolidated EA report is available for public view in local language (Hindi and Bengali) versions at IWAI website. EIA report for entire Jal Marg Vikas Project and its executive summary is also disclosed at IWAI website and as per provisions of World Bank disclosure policies.

## Annexures

### Annexure 5.1: List of Stake Holders for formal Consultation

#### List of Stakeholders for Farakka Lock

S. No.	Name	Designation	Department	Mobile No.
1	Mrs. Moonmoon Roy	Panchayat Pradhan	Bewa Gram Panchayat	8820194794
2	Mr. Jaihid Hussain	Director	Farakka Welfare Society(NGO)	9732807273
3	Santunu Dutta	Land revenue inspector	Farakka LRO	9851970202
4	Kesang Dhendup Bhutia	BDO & Block Executive Officer	BDO, Farakka	9434770026
5	Mr. Prasun K Dhara	BLRO	Farakka BLRO	9474308250
6	Mr. Santosh Mujherjee	Executive Officer	TINI(NGO)	8906689465
7	Mr. Subhra Khan	Executive Engr.	PWD, Farakka Circle	9433956762
8	Mr. Arnab Chakraborty	Journalist (Malda & Farakka Division)	Journalist from Uttarbanga Sangbad	9609442670
9	Mr. A.K.Paul	Executive Engr.	FBP Welfare Department	7074957614
10	Nikhil Sinha	Executive Engr.	FBP Anti-Erosion Dept	8348886678
11	Prof. Sutapa Dutta	Prof dept. Of Social Science	S.Nurul Hasan College	9434183507
12	Asesh Deyashi	Asst. Director	WB Agriculture Dept. (Farakka Circle)	9563273466
13	--	Officers	MRSW, NGO, Farakka	--

#### List of Stakeholders for Sahibganj Terminal

S. No.	Name	Designation	Department	Mobile No.
1	Shri Umesh Prasad Singh	Deputy Commissioner	Office of the Deputy Commissioner	06436-222100
2	Shri K.K. Tiwari	Divisional Forest Officer	Divisional Forest Office, Sahibganj	--
3	Mr. Sushil Soren	District Forest Officer	DFO, Van Pramandal Awas, Sakrogarh, Sahibganj	--
4	Sh. Faiku Ram	District Mining Officer	District Mining Department	--
5	Shri Vinay Kumar Mishra	District Land Acquisition Officer	Distt. Land acquisition Department	9934096667
6	Er. Ras Bihari Singh	Executive Engineer	Public Health Engineering Department	9934884808

7	Er. Vishal Chandra Toppo	Executive Engineer	Jharkhand Raja Vidhut Nigam Ltd.	9431135857
8	Er. Santosh Kumar Tiwari	Superintending Engineer	Irrigation Circle, Sahibganj	9135308972
9	Er. Abhdesb Kumar	Executive Engineer	Ganga Pump Nahar Pariyojna (Irrigation)	9431194614
10	Dr. Bhagwat Marandi	CMO	Health Department	9334776755
11	Shri Mithlesh Kumar Singh	Executive Officer cum BDO	Nagar Parishad	9955229279
12	Er. Shushil Kumar	Executive Engineer	Public Works Department	9431366639
13	Shri Marshel Khalko	District Agriculture Officer	Agriculture Department	9431193417
14	Smt. Munni Gaund	Mukhiya (Samda Nala, Samadaasi Aasharam, SakariBajar)	Gram Panchayat Head	7808789116
15	Smt. Usha Khalko	Mukhiya (HaathiGarhi)	Gram Panchayat Head	9801018326
16	Local People Villages Rampur & Samdha Nalla	--	--	--
17	Shri Niranjana Kumar	A.D.C	DC Office, Sahibganj	--
18	----	District Fisheries Officer	District Fisheries Office, Sahibganj	--
19	Mr. Ram Dayal Ravidas	Assistant Engineer	Drinking Water and Sanitation Department, Sahibganj	--
20	Mr. Vidya Nand Singh	Executive Engineer	Small Irrigation Department, Sahibganj	--
21	---	Additional Principal Chief Conservator of Forest (W/L)	Environment & Forest Department, Sinchai Bhawan, Patna	--
22	--	Conservator of Forest	Bhagalpur, Bihar	--
23	--	District Forest Officer	Bhagalpur, Bihar	--
24	---	Director Ecology	Environment & Forest Department, Sinchai Bhawan, Patna	--
25	--	Principal Chief Conservator of Forest (HOFF)	Environment & Forest Department, Sinchai Bhawan, Patna	--
26	Prof. Subhasis Dey	Professor	Vikramshila Bio-diversity Research and Education Centre, TM Bhagalpur	--

			University, Bhagalpur	
27	Prof. Sunil Chaudhary	Professor	Vikramshila Bio- diversity Research and Education Centre, TM Bhagalpur University, Bhagalpur	--
28	---	Member Secretary	JPCB, Nagar Prashasan Bhawan, HEC, Dhurva, Ranchi, Jharkhand	--
29	--	PCCF Wildlife & CWLW	Department of Forest & Environment, van Bhawan, Doranda, Ranchi	--
30	--	Principal Chief Conservator of Forest (HOFF)	Department of Forest & Environment, van Bhawan, Doranda, Ranchi	--
31	--	Officers	Talijari Matsya Jeev Samiti	--
32	--	Officers	Jan Kalyan Abhiyan	--

**Annexure 5.2: Invitation Letter Sent to Government Dept. and  
NGO's**



**EQMS INDIA PVT. LTD.**

304-305, III Floor, Rashabh Tower, Plot No. 16  
Community Centre, Karkardooma, Delhi - 110 092  
Phone : (011) 3000 3200 - 30003219  
Fax : (011) 2237 4775  
E-mail : eqms@eqmsindia.org  
Url : www.eqmsindia.com  
CIN : U85199DL1998PTC0394954

Date: 13.10.2015

To,  
Mr. Vidya Nand Singh  
Executive Engineer  
Small Irrigation Department  
C/O Shankar Jha, Chaudhary Colony  
Sahibganj, Jharkhand

**Subject:** Request for Support & Participation in Public Consultation Meetings at Sahibganj to be Organized by EQMS India Pvt. Ltd. along with JV Partners AIAID & IRGSSA for upcoming Project of IWAI "Capacity Augmentation of Navigational Infrastructure of National Waterway-1, i.e. Haldia to Allahabad"

Dear Sir,

Inland Waterways Authority of India (IWAI) has undertaken above mentioned project to enhance the freight movement along the NW-1. In this regard IWAI has appointed Environmental & Social Consultants to study the associated Environmental & Social Sensitivities of the project. Consultants are carrying out socio-economic survey at Sahibganj at present and have organized a formal public consultation meeting on 16<sup>th</sup> October, 2015. Details of Venue and Time for meeting is given below

Venue: Ashram, Village Sandha Ghat, Sahibganj

Time: 11:00 AM

We thus request you to kindly attend the meeting to provide the inputs and suggestions for the project.

We look forward to kind cooperation.  
Thanking you

Sanjay Kumar Jain  
Director-Technical  
EQMS India Pvt. Ltd.

Handwritten signature and date: 14/10/15

**Annexure 5.3: Proceedings of Informal Consultation for NW-1**

**Proceedings of Informal Consultation at different Locations of NW-1**

S. No	Date and place of consultation	Name and designation of person with organization name	No of people participated in the consultation	Major outcome
<b>Informal Consultation in Varanasi</b>				
1.	IWAI, Varanasi & Date:20.06.2015	A.K. Mishra, Deputy Director, IWAI, Varanasi	1	According to him site location is suitable for development of terminal from HFL prospective. Other points he added are  1. Economic Feasible 2. Reduce Air and noise pollution, 3. Increased Employment
2.	Varanasi & Date: 21-6-2015	Group Discussion with Locals, Fishermen and Boatmen, Baluaghat, Varanasi  1. Suresh Saki 2. Hariyan 3. Savajeet Sahni 4. Kashim Nishad 5. Rambabu Nishad 6. Syambabu nishad 7. Sidhunishad 8. Jaikishan 9. Bholusankar 10. Vishunnishad 11. Dablu Sahni 12. Takkan majhi 13. Ramnath Majhi 14. Gopal Nishad 15. Sidhu Sahni 16. Kashi 17. Dakkhi 18. Somnath 19. Hiralal 20. Shankar 21. Ramnahe 22. Visnu	52	1. People consulted involved local resident of the area, fishermen and boatmen and squatters at Balua Ghat 2. People affected here are indirectly 3. Most of them are educated till higher secondary level. All of them are well aware about the project. 4. Some of them wants this project because more job opportunity will create in the area. 5. Some of the fishermen showed concern the development of project may lead to <b>fish</b> kill and in turn will affect the fishing businesses. They

		<p>23. Syambabu 24. Banarsilal 25. Seva lal 26. Manish 27. Gopal ji 28. Manish kumar 29. Vivek Chorasija 30. Sankar Sahni 31. Bittu 32. Ramesh 33. Banarsi 34. Gaurisankar 35. Ranku Sahni 36. Pancham Mallah 37. Dilesh Sahni 38. Mirtu Kumari 39. Dhobelal 40. Bichanu 41. Sumeru 42. Bablu kumar 43. Chedi Sahni 44. Raju Sahni 45. Rajesh 46. Mohit 47. Anans Sahni 48. Mote Nath 49. Banarsi lal 50. Chote lal 51. Sri Ram 52. Gopal Ji</p>		<p>expect some allowances from the Government in lieu of their affected income.</p>
3.	PWD, Varanasi & Date: 21-6-2015	M.P Singh (Administrative Office)	1	<p>1. PWD officials are not aware about the project development 2. When the details were shared with him about the project, he presented a favourable view towards the project 3. He stated that development of waterways will reduce the freight load from highways, will reduce the air and noise pollution in area and will make transportation of goods cheaper 4. However, he suggested that the</p>

				<p>nearby roads to the terminal facility should be strengthened and widened, as there may be substantial increase in traffic movement in the roads connecting the terminal site after development of terminal. Thus IWAI should carry out traffic assessment due to project development and should coordinate with PWD in this regard</p>
4.	UPSIDC, Varanasi & Date-22-6-2015	Sushash Tripathi	1	<ol style="list-style-type: none"> <li>1. Development of terminal site may generate necessity of development of industrial zone near the terminal site as industries will be willing to find a location close to terminal site</li> <li>2. Development of terminal will facilitate low cost transportation of goods which will enable industries to produce goods at low cost, however no such industry exists in the industrial area at present in the nearby industrial area which may avail the facility of raw material movement by waterways</li> </ol>

5.	Kashi Van Mandal, Kacchua sanctuary, Varanasi & Date: 23.06.2015	Ajay roy, DFO, Kashi Van Mandal, Kacchua sanctuary Varanasi	1	<p>Discussion was carried out to identify environmental issues may associate with Turtle Sanctuary. Following are the main concerns of the officer:</p> <ol style="list-style-type: none"> <li>1. There turtle will get impacted due to regular movement of ships and vessels in river.</li> <li>2. Because the Turtle is very shy in nature the noise generated from the waterway transport will affect them.</li> <li>3. Siltation during the construction period will create a problem to aquatic fauna.</li> <li>4. Chance of oil spillage from the ships will contaminate the Ganga water quality. Solid waste generation management shall be done in scientific manner.</li> </ol>
6.	District Industry Centre (DIC), Varanasi & Date: 23-6-2015	Umesh Kumar Singh (Join Commissioner Industry)-	1	<ol style="list-style-type: none"> <li>1. They were not aware about the project development</li> <li>2. When project information was shared with them they said that there are 2 industrial areas in Chandauli District. These industries are generally agro based, small scale and non-polluting types. However, development of terminal may interest industrialist to</li> </ol>

				<p>develop industries in nearby areas</p> <p>3. He suggested waterways are cost effective and environment friendly mode of transportation. However, water pollution may occur, if wastewater is discharged by ships and terminal facility into river. This may also affect the aquatic life of the river and fishing activity</p>
7.	<p>Bharat Hindu University &amp;Date: 24.06.2015</p>	<p>Dr.B.D. Tripathi, UGC-BSR, BHU, Ganga pollution Research, NMCGA</p>	1	<p>Discussion was carried out with him regarding this project. Following are the main concerns of Dr. Tripathi was:</p> <ol style="list-style-type: none"> <li>1. Ganga River has anti bacterial quality on itself. Execution of this project, Ganga will lose its anti bacterial property.</li> <li>2. Aquatic flora and fauna will be disturbed</li> <li>3. Religious point of view he was not satisfied.</li> <li>4. Overall he is not in favour of this project.</li> </ol>
8.	<p>Irrigation Department, Varanasi &amp; Date: 24.06.2015</p>	<p>E.S.P. Srivastava, Sacchiv, Jal Nigam Irrigation Department, Varanasi</p>	1	<p>1. He is concerned about the vibration generated due to heavy traffic movement can disturb the strata of pump wells located in Ganga River for drinking water purposes.</p>
9.	<p>Ganga Pollution Unit at Varanasi &amp; Date: 24-6-2015</p>	<p>Er. J.B Rai, General Manager</p>	1	<ol style="list-style-type: none"> <li>1. He was aware about the project development</li> <li>2. He does not have</li> </ol>

				any favour and opposition for the project development
10.	Public Health department (PHD), Varanasi & Date: 26.06.2015	Dr. M.P. Chaurasiya, (C.M.O), Public Health Department, Varanasi.	1	<ol style="list-style-type: none"> <li>1. They are not aware about the project</li> <li>2. They do not have any existing and upcoming health schemes in the area near to the site development</li> <li>3. They suggested IWAI should contact them for development of health</li> </ol>
11.	Vikas Bhawan at Varanasi & Date: 26.06.2015	R.K.sharma (DESTRO), C.M.Srivastava: Statics Department	2	<ol style="list-style-type: none"> <li>1. They are not aware about the project</li> <li>2. They do not have any upcoming development scheme in the area near to site</li> <li>3. They did not have any say about the project development</li> </ol>
12.	USPCB, Varanasi & Date: 27.06.2015	DR. Mohd. Sikandar R.O, UPPCB	1	<ol style="list-style-type: none"> <li>1. He was aware about the project development</li> <li>2. He was concerned regarding the water quality issues which may be there due to construction of terminal facility and operation of cargos, spillage in case of accidents, discharge of waste and sewage, oil leakage and other related activities</li> <li>3. He suggested environment management plan should be prepared for the construction and operation phase and that should be strictly followed by IWAI and cargo</li> </ol>

				<p>operators to ensure no pollution to occur due to them</p> <p>4. In case of accidents, cargo operator should be responsible to clean the spills</p>
13.	Ralhupur, Village, Varanasi & Date-8-7-2015	<p>Project Affected Families:</p> <ol style="list-style-type: none"> <li>1. Dinesh Singh</li> <li>2. Ashok Singh</li> <li>3. Santosh Kumar Singh</li> <li>4. Alok Kumar Singh</li> <li>5. Gopal Singh</li> <li>6. NarenderBahadur Singh</li> <li>7. LaxamiPrasedRai and Family.</li> </ol>	7	<ol style="list-style-type: none"> <li>1. People are aware about the project development</li> <li>2. Discussion was carried out with Farmers, students and PAF regarding the impact of this project. People are well aware about the project. The main issues of the villagers are: <ul style="list-style-type: none"> <li>✓ Most of them want this project because more job opportunity will create in the area.</li> <li>✓ People were expecting permanent job in this project.</li> <li>✓ Majority of people have positive attitude towards the project.</li> <li>✓ People also expect infrastructure development such as good roads, water supply, power supply in their area after coming up of proposed terminal.</li> <li>✓ People expects that the upcoming project is of less polluting industries so as no pollution related problems will observed in the area.</li> <li>✓ They wished and expect from authority that their compensation</li> </ul> </li> </ol>

				<p>should be on current market price.</p> <ul style="list-style-type: none"> <li>✓ They got notification from government before acquisition of their land.</li> <li>✓ As per villagers, officers from block/anchal never talked to them regarding compensation and land acquisition.</li> <li>✓ They have been growing crops like Jau, Pulse, Arhar, Masoor for a long time on their land but now they have been gradually losing their irrigation land.</li> <li>✓ Villagers are requesting that compensation of their land should be as per prevailing market rate, if it is not feasible at least compensation should be disbursed to them on circle rate.</li> </ul> <p>3. Some Project affected families have filed petitions in the court for higher compensation.</p>
14.	Balwa Ghat Ramnagar Date:9.7.2015	<p>Fishermen, Boatmen and Squatters at Ghat and local community</p> <ol style="list-style-type: none"> <li>1. Jaikishan</li> <li>2. Ramlal</li> <li>3. Kamlu</li> <li>4. Roshan Lal</li> <li>5. Majhi Lal</li> <li>6. Kamlulal</li> <li>7. Sankar</li> <li>8. Ramnahe</li> <li>9. Vivek</li> <li>10. Aman</li> </ol>	12	<ol style="list-style-type: none"> <li>1. Yes, Supporting project</li> <li>2. Fishermen, Boatmen Squatters at Ghat and local community were happy from the NW-1</li> <li>3. The main concern of the local community is to provide them the livelihood based</li> </ol>

		11. Banarsi 12. Kamlesh		activities in the project works. 4. Second concern is to provide them skill based training which can help them to provide employment
15.	Land Owner (Local People), Dated- 23.8.2015	Vieswar Dravin, Land owner for proposed access road to Terminal	1(The land belongs to one family of three brothers)	1. Mr. Vieswar has some issues. Total land to be acquired as per the Government notification dated 19 <sup>th</sup> March 2015 is 0.592 ha. The land belongs to one family of three brothers. The owner of the land opined that the valuation of land is being done based on the circle rates and is not justified. He is requesting for the revision of the land value 2. Compensation amount and circle rates for the proposed land should be revised with the consent of the affected families in the meeting before finalization of the circle rates 3. Loss of this land will lead to loss of livelihood to the family
<b>Informal Consultation in Sahibganj</b>				
16.	Samda Nala Ghat, Near Project site, Sahibganj & Date: 16-09- 2015	General Public and Fisherman <ul style="list-style-type: none"><li>• Shiv ji maldar</li><li>• Chanchal kumar yadav</li><li>• Jawahar yadav</li><li>• Rmaan</li><li>• Narayan yadav</li><li>• Shiv Shankar yadav</li><li>• Rupan Mandal</li></ul>	13	Participants included farmers, students, affected people, fishermen, Boatmen and females. Most of the people in the area are farmers and depend on agriculture for livelihood. Villagers are aware about the

		<ul style="list-style-type: none"> <li>• Shivshankar yadav</li> <li>• Sudeshan Yadv</li> <li>• Sushila devi</li> <li>• Mahendra yadav</li> <li>• Kanhayia yadav</li> <li>• Bal Krishna Yadav</li> </ul>		<p>IWAI planning for construction of terminal. Following issues/concerns were raised by the participants.</p> <ol style="list-style-type: none"> <li>1. Land owners are highly concerned as they depend on the agriculture and mango plantation for their livelihood</li> <li>2. Students however see the project as positive development in the area in terms of infrastructure, power, roads and water supply facilities and employment generation</li> <li>3. Fishermen stated that fish catch will reduce in the area after construction of terminal due to increase in water pollution and killing due to barge movement</li> <li>4. Farmer practice river terrace cultivation in the river bed area and they are worried that they will not be allowed to practice the same after construction of terminal due to restrictions by authority</li> </ol>
17.	Ashram, Samda Nala Village & Date: 9 <sup>th</sup> - 10-2015	Villagers from Rampur & Samda Nala village	10	<p>Participants included farmers, students and females. Following issues/concerns were raised by the participants</p> <ol style="list-style-type: none"> <li>1. Loss of livelihood is major concern due to loss of</li> </ol>

				<p>agriculture land</p> <ol style="list-style-type: none"> <li>2. Land owners were demanding compensation should be as per prevailing market rates</li> <li>3. Local people only should be considered for provision of employment</li> <li>4. Proper R &amp; R should be done before displacement of affected people. Affected people/land owners are worried about the loss of houses and place of relocation</li> <li>5. Religious sentiments of locals are associated with River Ganga so they want place near to River Ganga for relocation</li> <li>6. Employment and home should be provided to affected people before displacement/land acquisition and loss of livelihood</li> <li>7. Project development will lead to increase in pollution in area and water. Water pollution may significantly impact the fish catch</li> </ol>
18.	Ashram, Samda Nala Village & Date: 9 <sup>th</sup> -10-2015	Villagers Rampur, Ashram, Samda Nala Village (8 Participants)	8	<p>Participants included farmers, fishermen &amp; students. Following issues/concerns were raised by the participants</p> <ol style="list-style-type: none"> <li>1. Land owners categorically said</li> </ol>

				<p>that land will be given only, if they will get appropriate compensation</p> <ol style="list-style-type: none"> <li>2. Also they require employment, if complete land will be taken away from them</li> <li>3. They mentioned large nos. of trees are planted in the land which is under planning to be acquired, cutting of large no. of trees will affect the environment of village thus equal nos. of trees should be planted before cutting the trees in nearby land areas</li> <li>4. They said some dolphins are seen in the water, operation of barges may be danger to life of dolphin</li> <li>5. They are scared as they think fishing will be banned in the area after development of terminal which is major livelihood source of most of the people</li> </ol>
19.	Ashram, Samda Nala Village & Date: 9 <sup>th</sup> -10-2015	Ashram, Village Rampur	15	<p>Participants included farmers, fishermen &amp; students. Following issues/concerns were raised by the participants</p> <ol style="list-style-type: none"> <li>1. Land owners are expecting appropriate compensation for their land and also assistance in alternative livelihood of their land will be acquired</li> <li>2. They demanded</li> </ol>

				<p>job for them and their children and they mentioned they should be given skill generation training for job offered as they have practised only agriculture throughout their life</p> <ol style="list-style-type: none"> <li>3. They insisted that they worship River Ganga and they will not bear addition of pollutants and waste in the River</li> <li>4. They want to get assurance about that they can continue fishing activity in the river after construction of terminal</li> <li>5. They wanted to ask what other developments will be taken up by IWA in village for betterment of villagers</li> </ol>
20.	NayaTola & Samda Nala Village & Date:5 <sup>th</sup> -11-2015	Villagers from Naya Tola & SamdhaNala	10	<p>Participants included farmers, students and females. Following issues/concerns were raised by the participants</p> <ol style="list-style-type: none"> <li>1. Farmers whose land will be acquired are worried due to loss of land and loss of livelihood as they are practising agriculture since generation</li> <li>2. Land owners demanded alternate housing facility and employment prior to land acquisition and displacement</li> <li>3. Fishing activity will be hampered in the</li> </ol>

				<p>river due to development of terminal and plying of large nos. of cargos</p> <ol style="list-style-type: none"> <li>4. Cutting of large nos. of trees within the project site will impact the climate of the area</li> <li>5. Local people should be considered for providing employment</li> <li>6. Community facility in the area, if any to be disturbed should be relocated at the accessible and appropriate location</li> </ol>
21.	Asharam Ashram, Naya Tola & Samda Nala Village & Date: 8 <sup>th</sup> November, 2015	Villagers from Naya Tola & Samdha Nala	20	<p>Participants included farmers, students and females. People are aware about the project. Following issues/concerns were raised by the participants</p> <ol style="list-style-type: none"> <li>1. Land owners are worried about the compensation rates and the loss of livelihood</li> <li>2. They demanded provision of employment for the affected people. Authority committed for provision of employment to locals after coming up of project</li> <li>3. Locals demanded compensation should be given as per market rates</li> <li>4. Displaced population want the relocation near or inside the village only</li> <li>5. Assistance should</li> </ol>

				<p>be given for alternate livelihood for affected people</p> <p>6. Water quality can be affected due to project development; this will affect the aquatic life in the area</p> <p>7. Air pollution in the area will increase due to increased movement of vehicles in the area</p>
22.	<p>Department of Environment and Forest, Aranya Bhawan, Shahid Pir Ali Khan Path (Riding Road), Shekhpura, Patna-14&amp;Date:15<sup>th</sup> September 2015</p>	<p>Dr. D K Shukla</p> <p><b>Designation:</b> Principal Chief Conservator of Forest (PCCF)</p> <p>Department of Environment and Forest.</p>	1	<p>1. Dr. D.K. Shukla gave idea on extent of the dolphin sanctuary. VGDS boundary starts from Sultangunj block boundary and ends at Kahalgaon subdivision boundary. He also advised to meet Chief Wildlife Warden, Bihar for more information on VGDS. He raised the following concern</p> <p>2. Dolphins will be impacted with barge &amp; cargo movement especially the baby dolphins.</p> <p>3. Development of terminal may increase the water pollution which will significantly affect the aquatic life</p> <p>4. Strict norms and measures are required to be followed and taken towards the protection of habitat of the dolphins, if this project is being developed.</p> <p>5. Discharge of waste</p>

				<p>in the river should be strictly prohibited by anybody (terminal/vessels/barges). Waste management facilities should be developed at site and waste should be treated and disposed off at other safe locations</p> <p>6. Mechanical movement of barges will impact the dolphins thus the speed of the cargos movement in these water should be regularized</p>
23.	<p>Department of Environment and Forest, Aranya Bhawan, Shahid Pir Ali Khan Path (Riding Road), Shekhpura, Patna-14 &amp; Date: 15<sup>th</sup>-09-2015</p>	<p>Shri S S Chaudhary <b>Designation:</b> Additional Principal Chief Conservator of Forest (PCCF) and Chief Wildlife Warden, Bihar</p>	1	<p>1. Shri S.S. Chaudhary was aware about the project development. He gave more information about the extent of VGDS. He told that river stretch between Sultanganj and Kahalgaon Pahar (50 kms) is declared as VGDS. Copy of notification for declaration of VGDS as Dolphin Sanctuary was provided by him. He raised the following concerns:</p> <p>2. Project may have significant impact on dolphin thus proper measures should be taken during operation phase to minimize this impact.</p> <p>3. It may be required to obtain Wildlife clearance for the</p>

				<p>project</p> <p>4. Interference in this zone should be minimized to the extent possible.</p> <p>5. Minimal disturbance to the dolphin should be done as they are sensitive</p> <p>6. Waste management is key requirement. Waste disposal, disposal of coal ash and contaminated run-off to the river may pollute the river water quality significantly which inturn may affect the aquatic life.</p>
24.	<p>Gangetic Plains Regional Centre, Zoological Survey of India, 11-D Rajendra Nagar, Patna - 800 016, <b>Date:</b> 15<sup>th</sup>-09- 2015</p>	<p>Dr. Gopal Sharma <b>Designation:</b> Scientist D and Officer-In-Charge at Gangetic Plains Regional Centre</p>	1	<p>1. Dr. Gopal Sharma was aware about the IWAJ Project. He opined that the project will have impact on Dolphins. He told that VGDS extends about 60-65 kms. Coordinates for starting and end points are as follows:</p> <ul style="list-style-type: none"> <li>✓ Sultanganj (Ajaivinath Temple) N 28°15.247' and E 86°44.758'</li> <li>✓ Kahalgaon (3 hillocks in river) N 25°15.402' and E 87°13.246'</li> </ul> <p>2. He told that this stretch is preferred habitat of the dolphin due to availability of confluence points, meandering locations and deep pools of river. About 127</p>

				<p>dolphins have been recorded in VGDS. Other aquatic fauna of VGDS include Otter, gharial, turtle, etc. VGDS provides breeding ground of such species. He raised the following concerns:</p> <ul style="list-style-type: none"> <li>✓ VGDS is rich in bio-diversity thus care should be taken that minimal or no disturbance should be caused to aquatic life</li> <li>✓ Dredged material may contain toxic compounds so should not be dumped on river bank as river banks are habitat for otter, birds feeding on aquatic organisms and other species</li> <li>✓ Dolphins are affected by the vibrations. Plying vessels create ripples which causes energy losses in dolphin for its movement and carrying out other functions.</li> <li>✓ At present dolphins are distracted by vessels plying in NW-1. Mitigation measure for propellers to avoid dolphin</li> </ul>
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				<p>getting hit should be considered, e.g. propeller guard.</p> <ul style="list-style-type: none"> <li>✓ This leads to entanglement of dolphins in fishing nets in Ganga causing mortality.</li> <li>✓ In the current situation, plying vessels get stuck in lean season. In the event of larger vessels plying in NW-1, the situation will be aggravated.</li> </ul> <p>3. Also there are various sites of socio-cultural importance like Ajgaivinath temple, Sultangunj, which should not be impacted due to project development.</p>
25.	Department of Fisheries, Sahibganj & Date: 16 <sup>th</sup> September 2015	Shri Jayant Ranjan, <b>Designation:</b> District Fisheries officer  :jayant.ranjan21@gmail.com	1	<p>1. During the consultation, Mr. Jayant Ranjan made the following comments</p> <ul style="list-style-type: none"> <li>✓ He appreciated the efforts to engage with local communities through public consultation.</li> <li>✓ He said app. 5000 fishermen are dependent on fisheries for livelihood in this stretch and their livelihood may get impacted due to development of project</li> <li>✓ Some of the commercial fisheries in the</li> </ul>

				<p>area are Indian Major carps, singhi, shrimps, Mystus sp. Catfishes &amp;tengra</p> <ul style="list-style-type: none"> <li>✓ The river banks at Bejlighar, Maharajpur, Mahadevganj, etc in Sahibganj are known as breeding and spawning grounds. Fish breeding takes place in shallow water. Fish seedlings are collected by fishermen in this region.</li> <li>✓ During lean season, siltation is high and water current is low. Thus dredging will be required to carry out which will significantly impact the water quality</li> <li>✓ Dredging may have significant impact on breeding and spawning season</li> <li>✓ Impacts which may result due to project development are oil spills from barge vessels, cargo spillage, ballast water, anti-fouling paints etc</li> <li>✓ Dredged material should not be disposed off on</li> </ul>
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				<p>the bank of river as they are breeding and spawning grounds of fishes</p> <ul style="list-style-type: none"> <li>✓ In Jharkhand District, decline in Rohu fish is recorded.</li> <li>✓ Project will open up the opportunity for movement of frozen fish in Sahibganj and will open up opportunity for livelihood of local communities</li> </ul> <p>2. There is potential for growth of commercial fisheries including cage culture fisheries, which is being promoted in Jharkhand</p>
26.	District Forest officer, Bhagalpur, Patna & Date: 16 <sup>th</sup> -09-2015	Mr. S.K.Sinha, Designation: DFO, Bhagalpur	1	<p>1. Mr. S. K. Sinha made the following comments and suggestion</p> <ul style="list-style-type: none"> <li>✓ He discussed that it may require to clear large nos. of trees for development of project</li> <li>✓ He suggested permission should be taken from forest department before cutting any tree</li> <li>✓ He also suggested that compensatory afforestation should be carried out in lieu of trees cut</li> <li>✓ He suggested to consider</li> </ul>

				<p>impacts on aquatic life and terrestrial flora &amp; fauna while designing the project and to include mitigation measures in environment management plan</p> <p>✓ He suggested a thick green belt should be developed all around the boundary of the terminal site</p> <p>2. He also suggested that terminal boundary should be high enough to prevent entry of cattle/animals</p>
27.	Gram Panchyat, SamdaNala and Rampur village &Date: 9 <sup>th</sup> -09- 2015	Mrs. Munni Gaud  <b>Designation:</b> Gram Panchyat Head, Panchyat, SamdaNala and Rampur village	1	<p>1. Mrs. Munni Gaud is aware about the project and she opined the following</p> <p>✓ She said the project will bring development in the area and will have positive socio-economic impact on large scale. However, people who are losing land will lose their livelihood and their housing</p> <p>✓ People are expecting employment generation from the project and also the infrastructure development</p> <p>✓ Traffic may</p>

				<p>increase in the village and nearby area which will pollute the air so mitigation measures should be taken to minimize air pollution</p> <ul style="list-style-type: none"> <li>✓ Villagers have emotional values attached with the River Ganga, thus terminal project should not cause water pollution else there will be opposition from the villagers</li> <li>✓ Adequate compensation should be given provided to the people.</li> </ul> <p>2. Alternate employment options should be suggested for people who are completely losing their land.</p>
28.	Gram Panchyat, Hathigarhi & Date: 9 <sup>th</sup> -09-2015	Mrs. Usha Khalkoo <b>Designation:</b> Gram Panchyat Head, Gram Panchyat, Hathigarhi	1	<p>1. Mrs. Usha Khalkoo is aware about the project and she told the following</p> <ul style="list-style-type: none"> <li>✓ Land owners are worried as some are losing their complete land and they will lose their livelihood, if land will be taken away from them</li> <li>✓ Adequate compensation and assistance should be provided to land owners to</li> </ul>

				<p>find new livelihood options.</p> <ul style="list-style-type: none"> <li>✓ Employment should be provided to local people preferably</li> <li>✓ Tree cutting should be minimized and compensation should be provided to owners for all their assets as per law</li> <li>✓ River water will be polluted due to construction of terminal and villagers may have concerns about this as they worship River Ganga</li> </ul> <p>2. Traffic may increase in the area which may increase chances of accidents</p>
29.	District Collectrate Office Sahibganj, Jharkhand &Date: 7 <sup>th</sup> -09-2015	<p>Mr Niranjan Kumar</p> <p><b>Designation:</b> Additional Deputy Collector + Land Acquisition officer, Sahib ganj</p> <p>District Collect rate Office Sahibganj, Jharkhand</p>	1	<p>Meeting was held in the Collectorate office regarding the proposed terminal activities. In the meeting Mr Niranjan kumar ADC Sahibganj told that their office is carrying out the land acquisition which is in progress and it may take some more time to finalize the final individual award list. After completion of the the work they can provide the final award list and land details to the IWA. He also suggests to carry out the SIA activities and they can provide</p>

				security for survey team as necessary.
<b>Informal consultation in Farakka:</b>				
30.	Bewa village– cognitive interview &Date:5/10/2015	Villagers of Bewa Panchayat <ul style="list-style-type: none"> <li>• Ajay Mondal</li> <li>• Arun Ghosh</li> <li>• Ashoke Ghosh</li> <li>• Banu Ghosh</li> <li>• Bapan Ghosh</li> <li>• Binoy Ghosh</li> <li>• Bharat Ghosh</li> <li>• Bikash Ghosh</li> <li>• Biren Ghosh</li> <li>• Dukhu Sekh</li> <li>• Abddul Mannan</li> <li>• Barqat Sekh</li> <li>• Gani Sekh</li> <li>• Aftab Sekh</li> <li>• Hamsad Sekh</li> <li>• Ahmad Sekh</li> <li>• Tufani Sekh</li> <li>• Sarju Sekh</li> <li>• Gaju Sekh</li> <li>• siraj Sekh</li> <li>• Abdul Sekh</li> </ul>	21	Participants included farmers indirectly affected local persons and community members .Following issues/concerns were raised by the participants <ol style="list-style-type: none"> <li>1. People were aware about the project.</li> <li>2. Some of them were doing agriculture on Farakka Barrage project land without any agreement and lease navigational lock to be constructed.</li> <li>3. They had already given their land to FBP during Farakka barrage project installation in 1965</li> <li>4. Most of them were disagree with the compensation provided by FBP.</li> <li>5. Erosion occurs along the bank of feeder canal and that is creating problem. Ship movement has further enhanced erosion</li> </ol>
31.	Near Primary school Ghoraipada village &Date:6/10/2015	Villagers of Ghoraipada village <ol style="list-style-type: none"> <li>1. Nikil ghosh</li> <li>2. Pawan ghosh</li> <li>3. Pappu ghosh</li> <li>4. Ravi ghosh</li> <li>5. Rakesh ghosh</li> <li>6. Ram Chandra ghosh</li> <li>7. Ratan Ghosh</li> <li>8. Sadan Ghosh</li> <li>9. Sanjay Ghosh.</li> </ol>	9	Participants included farmer and small traders. Following issues/concerns were raised by the participants <ol style="list-style-type: none"> <li>1. They demanded job for them and their children and they mentioned they should be given</li> </ol>

				<p>skill generation training for job offered as they have practiced only agriculture throughout their life</p> <p>2. Most of them were disagree with the compensation provided by FBP.</p> <p>3. They need compensation for damage of fishing nets and other accessories due to barrage movement and project development (if any)</p> <p>4. They need employment during construction and operation phase of the proposed navigation lock.</p>
32.	<p>Central Inland Fisheries Research Institute, Barrackpore, West Bengal &amp;Date:1.07.2015</p>	<p>Director. Central Inland Fisheries Research Institute, Barrackpore,</p>	1	<p>They are aware about the project development</p> <p>1. They suggested project will have significant impact on aquatic life and sensitive species like dolphins and turtles</p> <p>2. Water quality is already polluted and will be affected further due to project development.</p> <p>3. Dredging activity have significant impact on the aquatic life</p> <p>4. This will lead to disturbance of the sediments which may contain haz. material, increase in turbidity which may impact the visibility and gills of the aquatic organisms etc</p> <p>5. Mechanical movement of</p>

				<p>barges will impact the fish and other aquatic animals thus the speed of the cargos movement in these water should be regularized</p>
33.	<p>Department of Environment, Government of west Bengal &amp; Date- 31.06.2015</p>	<p>Mr. Siddhartha Roy, IFS, Senior Environment Officer, Government of West Bengal, Kolkata</p>	1	<p>He was aware about the project and they were highly concerned about the environment issues related with the project development</p> <ol style="list-style-type: none"> <li>1. Clearances and NOCs should be obtained as applicable for the project as per the laws and Acts of Govt. of India</li> <li>2. Project will significantly reduce air emission, noise level &amp; traffic loads from highways but may add to water pollution</li> <li>3. Surface water quality may be degraded due to discharge of waste/sewage from ships and lock gate facility, increased human activities near river, accidental spillage, leakage of oils etc.</li> <li>4. Ground water may also get polluted as this surface water seeps into ground water aquifers</li> </ol>
34.	<p>State Warehousing Corporation, WB &amp; Date -30.06. 2015</p>	<p>Mr. A.K. Sinh, Executive Secretary, WBSWC &amp; Mr. Kaushik Mukherjee, Dy. Commercial Manager, WBSWC</p>	2	<p>The officials were aware about the project and added the following:</p> <ol style="list-style-type: none"> <li>1. They have expressed positive attitude towards project</li> </ol>

				<p>development</p> <ol style="list-style-type: none"> <li>2. Project will boost the freight movement, cheap raw material transportation and thus the industrial sector</li> <li>3. With boost in freight transportation and industrial activity, need of warehouses will increase with time</li> <li>4. Thus some projects may come near to lock gate sites</li> <li>5. Cost effective, energy efficient and environment friendly mode of transportation</li> </ol>
35.	<p>Farakka Block Development Office, Farakka, Murshidabad &amp;Date:8<sup>th</sup> October 2015</p>	<p>Mr Niranjan Kumar, KesangDhendupBhutia, BDO&amp; Block Executive Office  Ph-9434770026  E-mail- <a href="mailto:bdo.farakka@gmail.com">bdo.farakka@gmail.com</a></p>	1	<p>BDO, Farakka was aware and happy with the project development and assured his and local administration cooperation for the project implementation.</p> <ol style="list-style-type: none"> <li>1. He was also invited for public consultation meeting.</li> <li>2. Any kind of toxic pollution by the vessel like oil spillage and chemicals in the river water, transport emissions, needs to be considered.</li> </ol>
36.	<p>Divisional Forest Office, Nadia &amp; Murshidabad Range &amp; Date:15<sup>th</sup> October 2015</p>	<p>Mr. Rana Dutta, IFS, DFO  -mail: <a href="mailto:dfomnd@rediffmail.com">dfomnd@rediffmail.com</a></p>	1	<p>He was aware about the project. He says that there is no reserve and protected forest in the area and also added that there is no sensitive</p>

				ecosystem present in the area. He was highly concerned about river bank erosion.
37.	Coal India, Kolkata.	Mr. Niranjana Das, CGM (Env.), Coal India, Kolkata.	1	<p>He was aware about the project he further added that the project is highly beneficial. Insufficient transportation facility available at present.</p> <ol style="list-style-type: none"> <li>1. Project development will increase the transportation of coal to user agencies, especially NTPC thus enhancing the power generation capacity</li> <li>2. IWT is environment friendly mode of transportation</li> <li>3. Transportation of coal should be carried out only in covered cargo</li> <li>4. However, project can impact the aquatic life by disturbing its habitat</li> <li>5. Environment management plan should be prepared and for all the stages of project and should be implemented as suggested to minimize environmental impacts of the project.</li> </ol>
38.	Community members of local Villages at PCM near project site	Community members of local Villages at PCM near project site	50	<ol style="list-style-type: none"> <li>1. The villagers also informed that there is no forest area. Further, they did not anticipate any adverse impacts</li> </ol>

				<p>on their livelihood due to construction works.</p> <p>2. They further opined that there would be positive impacts on the sources of livelihood due to increased economic opportunities which will provide good earning sources to the local families due to the project implementation. It was also informed that there is no Schedule Tribe (ST) population in the project area.</p> <p>3. Representatives from Beoapanchayat extended their support during the construction and operational phase of the proposed project. -They also suggested that public consultation meetings should be held at different places for awareness of the people and Grievance Redressal Committee should be active with timely conflict resolution.</p>
<b>Informal Consultation in Haldia</b>				
39.	Tamluk, East Medinipur & Date: September 21, 2015,	Mr. S K Chakraborty, DFO, East Medinipur Division	1	DFO sought directions from Headquarters of Department of Environment and Forest for providing relevant data.

40.	Tamluk, East Medinipur & Date: September 21, 2015	Mr. Satikanta Bairagi, Assistant Director of Fisheries (ADF) in Directorate of Fisheries and Fish Farmers Development Agency	1	Provided information on Nayachar and Nutanchar Islands in the project area of proposed Haldia Terminal.
41.	Sanjana Cryogenic Storages Date: September 22, 2015,	Mr. Jay Sengupta, Director (Technical) and Mr. B D Saha, Manager (Process)- Sanjana Cryogenic Storages Ltd.	2	The officials of Sanjana Cryogenic Storages Ltd. were aware of the proposed terminal at Haldia in the neighbourhood of Sanjana Cryogenic Storages Ltd. The issue of over ground pipeline was raised which runs along the proposed site
42.	Sanjana Cryogenic Storages Ltd., Durgachak, Haldia, Purba Medinipur. Date: 21 <sup>st</sup> September 2015	Mr. Joy Sengupta, Director Technical, Sanjana Cryogenic Storages Ltd	1	Support the project, the main issues discussed are:  1. The terminal will be a new addition for carrying the container and goods by the river at lower rate. Once the terminal is in operation they will use it to vessel their export goods which will be cheaper by road transport that they are currently using. ✓ Export import business will be improved for terminal installation. ✓ Employment opportunity will be increase. ✓ The only source of pollution from proposed terminal will be sound pollution. The

				<p>project implementing agency needs to take steps to abate the noise pollution.</p> <p>2. Our factory is close to the proposed terminal therefore, we will help IWAI authority to operate the terminal smoothly in term of existing pipe line shifting, etc.</p> <p>3. Need to work in close cooperation with the IWAI to ensure that no water logging takes place due to the project by integrating the drainage systems in the area.</p> <p>Fire team should be available on call to attend to and avoid any kind of disaster situations.</p>
43.	Kolkata, September 23, 2015,	Dr R P Saini, Special Additional PCCF and Chief Conservator of Forests (HQ), Kolkata  Department of Environment and Forests	1	Instructions were issued to DFOs in Nadia and East Medinipur Division for collection of relevant data
44.	Haldia Municipality, Haldia, Purba Medinipur & Date: 25th September, 2015	Mr. Deboprasad Mondal  Chairman of Haldia Municipality  Email: <a href="mailto:haldmuni@yahoo.com">haldmuni@yahoo.com</a>	1	Support the project. The main issues are:  1. Hooghly River which is very much close to the proposed terminal 2. Any kind of toxic pollution by the vessel like oil spillage and chemicals in the river water, transport emissions, needs to be considered.

				<p>3. He appealed to the authority that they should provide jobs to the local unemployed youth based on their skill and should give business opportunities to the local people.</p> <p>4. As part of social development the local immersion Ghat at Durgachak(near to the project site) should be expanded by the project sponsors to overcome the current congestion especially during the local festival.</p> <p>5. The access road needs to be carpeted as present road is not in good condition.</p> <p>6. Our request is to develop the road as it will be needed for the proposed terminal access movement also.</p> <p>7. He requested to make provisions for appropriate parking facilities inside the proposed terminal for better management of container carrying vehicles.</p> <p>8. Finally, he gave the assurances that local government (ULB) will give all help for smooth operation of the project activities.</p>
45.	Haldia, P Haldia Development Authority(HDA),Hal	Mr. Purnendu S. Naskar,WBCS	1	Support the project, the main issues discussed are:

	<p>dia, PurbaMedinipur &amp; Date: 28th September 2015</p>			<ol style="list-style-type: none"> <li>1. The project sponsors should consider the fact that the vessel navigation should be planned appropriately as there could be an impact to the river bank which is adjacent to the proposed terminal.</li> <li>2. Due to increased river cargo traffic management of incoming and outgoing vessels in terms of loading and unloading will have to be planned and executed appropriately.</li> <li>3. During dry and winter season the river water depth is low, this will create issue of cargo movement from and to the terminal. Measures should be taken to address this problem either by ensuring minimum water flow in the river or provide appropriate warehousing facilities for storing the cargo material during the lean period.</li> <li>4. Oil from vessel may flow into the river and pollute the water. This pollution will affect the terrestrial flora and fauna. Their needs strict control to be imposed by the project sponsors.</li> <li>5. The IWAI authority have to be</li> </ol>
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				<p>prepared for any kind of accidents occurring with maximum preparedness like – having rescue team on call, good communication with the civil volunteers, fire services and local administration contacts.</p>
46.	<p>Haldia Municipality, Haldia, Purba Medinipur &amp; Date: 25th September, 2015</p>	<p>Mr. Gopal Chandra Das, Vice Chairman, Haldia Municipality</p>	1	<p>Support the project, the main issues discussed are:</p> <ol style="list-style-type: none"> <li>1. The interviewee raised concerns about the existing high particulate matter concentration in the area and recommended that the proposed project should ensure that no further particulate matter is created by the proposed project. Concerns about oil spillage was raised and hoped that proper emergency response to tackle any accidental spillage would be in place.</li> <li>2. The access road needs to be widened and upgraded to ensure smooth traffic movement. A traffic management plan needs to be in place.</li> <li>3. The interviewee suggested that the project should employ local people in the proposed terminal on a priority basis</li> </ol>

				provided they have the required skills.
47.	Haldia Block Development office, Brajlalchak, Halda Purba Medinipur & Date: 23 <sup>rd</sup> September 2015	Mr. Suman Kumar Sahoo, Fisheries Extension officer	1	<p>Support the project, the main issues discussed are:</p> <ol style="list-style-type: none"> <li>1. There is no fish sanctuary around the port site. Fish existence is found for three months during the rainy season. During the dry season the water quality is degraded and blackish which is not suitable for the fish. Thus production of fish reduces.</li> <li>2. Turbulence and wave from plying vessel movement can be a cause of fish resource sheltering in safer waters. This is problem that is difficult to resolve as the waterway fish may migrate.</li> <li>3. -Considering terrestrial flora and fauna, the authority can prepare habitat by tree plantation.</li> <li>4. -There are some fishermen depending on the fishing activity in the Hooghly River for 3-4 months of the year; the authority can support them through livelihood restoration programmes.</li> <li>5. The authority can prohibit the discharge of oily water into the river during fish breeding period April- May.</li> </ol>

				6. IWA authority can invest in fish breeding in the river or nearby water bodies and employ the fishermen who are without a livelihood for nine months in a year.
48.				4.
49.	Durgachak, Haldia, Purba Medinipur.  Date: 27 <sup>th</sup> September 2015	Haldia Vigyan Parishad (NGO's)	3	1. Support the project, the main issues discussed are: <ul style="list-style-type: none"> <li>✓ Meaningful community development for the people in the affected areas was demanded</li> <li>✓ Oil water from vessel washes may pollute the river water which will affect the terrestrial flora and fauna. There needs to be strict control measures to be imposed by the project authority.</li> </ul> 2. The proper environment management plan should be prepared before the project operation phase.
50.	Community members living within 1.5km radius of the project location at Durgachawk & Date: 27 <sup>th</sup> September 2015	Community members living within 1.5km radius of the project location at Durgachawk  1. Sanjay Kumar Maji 2. Arindam Pramanik 3. Sadhan Sardar 4. Sibsankar Patra 5. Pralay Kr. Hazra 6. Atanu Bera 7. Prabir Pusti	10	1. Interviewees highlighted that the consultation – adapting the company's operations to reflect the views heard – is typically missing. They underlined that if companies wish to conduct meaningful

		<p>8. Biswajit Rana 9. Arjun Metya 10. Kamal Jana</p>		<p>consultation, they should be willing to revise the project terms in response to the feedback received from the community. They noted that they view the objective of the consultation not as merely explaining the project, but revising it as needed to satisfy the affected communities.</p> <p>2. Consider providing access to alternative methods of gaining adequate livelihoods, such as offering vocational training for specific jobs, in addition to providing monetary compensation for affected structure.</p> <p>3. Compensation for affected structure payments should be transferred directly to the recipients through community-based organizations. The funds should not be transferred through local authorities, land registries or other entities that could be prone to corruption.</p> <p>4. Put in place grievance mechanisms so that community members have a place to go to voice concerns and resolve the issue.</p>
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51.	Durgachak, Haldia, Purba Medinipur & Date -28 <sup>th</sup> -06-2015	Santanu Ghosh, Local Auto Rickshaw Drivers at Durgachak, Haldia, Purba Medinipur	1	<ol style="list-style-type: none"> <li>1. We are driving our vehicle in this road from dawn to dusk.</li> <li>2. We earned and derive our 6-member family by this.</li> <li>3. If traffic congestion becomes severe than our income will be reduced and will have to divert our profession.</li> <li>4. We expect the authority will take measures.</li> </ol>
52.	Fisherman group at Durgachak & Date: 29 <sup>th</sup> -06, 2015	Sanatan Dinda and other fishermen	1	<ol style="list-style-type: none"> <li>1. According to the team leader Md. Sanatan Dinda-we are fishing here only 3 to 4 month.</li> <li>2. Another time we work in the brickfield and some of us pulling rickshaw and van. There are 7-8 people in our team, every day we get 2500 to 3000 rupees by fishing.</li> <li>3. September is the peak time for high income. Our concern is that if the vessel comes during this time the fishing may be affected which will hamper our livelihood.</li> </ol>
<b>Informal Consultations for Barge Movement in Buxar &amp; Patna</b>				
53.	People gathered for Ganga bath & Date: 10 <sup>th</sup> February 2016	Ram Rekha Ghat, Buxar	10	<ol style="list-style-type: none"> <li>1. People were given brief about the project and to be increased frequency of barge movement and large size barges movement in the stretch of River</li> <li>2. People welcome the project and were interested to</li> </ol>

				<p>know about the employment generation potential for locals due to project</p> <p>3. No objection was raised to project</p> <p>4. People said that if project will lead to congestion then infrastructure should be enhanced accordingly so as local people do not suffer</p>
54.	Local People gathered for bath in Ganga (Ganga Snan) & Date: 11 <sup>th</sup> February 2016	Adi Nath Ghat, Buxar	6	<p>1. People were not aware about the project and thus brief was given to people about the augmentation of entire NW-1 to enhance the navigation</p> <p>2. People were told about the increased barge movement in the area</p> <p>3. People raised their concerns regarding their day to day activity in the river.</p> <p>4. They inquired if the barge movement will enhance the pollution. They asked for pollution free Ganga</p> <p>5. They also expect that employment generation should be there due to project development in their area also</p>
55.	Local people gathered for idol emersion. & Date: 14 <sup>th</sup> February 2016	Gai Ghat, Patna	8	<p>1. People were aware about the project as IWAI is nearby</p> <p>2. Brief was given to people again about the augmentation of</p>

				<p>entire NW-1 to enhance the navigation</p> <p>3. People were told about the increased barge movement in the area</p> <p>4. People were worried about the enhanced pollution in the river due to project</p>
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**Annexure 5.4: Attendance sheet for the PCM at Sahibganj Formal Consultation**

सांख्यिक परामेरा वेडक  
रूपान - आत्म सभमदा थाट दिनांक 16-10-2015

क्रमांक	नाम	विभाग	हस्ताक्षर
1.	रविकान्त	भारतीय अणुसंशोधन मंत्रालय का केंद्र	विभागीय
2.	जयंत रंजन	जि० प्रसाद पदा, साहेबगंज	Ry
3.	विनय कुमार मिश्र	जिला मु-अर्थ व पंचायत लाईव्गिंग	R.D.
4.	पुशपंत मुखर्जी	राष्ट्रीय सार्वजनिक जनसंपर्क प्रमुख - गु	
5.	अनिल कुमार	नर नर नर प्रभु	अनिल
6.	Rohini R. Mohr	IWAI	Rohini
7.	अर्पा सिन्घल	जैरा - WB (consultant)	अर्पा
8.	MRIDULA	WORLD BANK	Mis.
9.	Dr P. Marand	Health (Law)	Dr P. Marand
10.	Ashy slomker chy	K.C. (D.L.A.O)	Ashy
11.	करीम साह	सर्विस प्रोव्हाइडर साहेबगंज	करीम 16/10
12.	Monjee. Ar. rehto Shachul Ande	D.L.A. Office Sahibganj	M 16/10/15
13.	Rajendra Saha	D.L.A. Office Sahibganj	Rajendra 16/10/15
14.	राम कुमार	विभागीय अधिकारी	राम कुमार 16/10/15
15.	मो/बी/साह	जालमय/वीए/सामो मरुत-समित	मो/बी/साह 16/10/15
16.	Kusko Kune	IRSSA / EOMC TV	A
17.	Dr. Jushil Bhachula	DSVV, Haridwar Uttarakhand	Bhachula
18.	विजय	IWAI	विजय
19.	RaviRajan	IWAI	R. R. Rajan
20.	Sayyid Mus	K.R.D. (Singapore Consult)	Sayyid Mus
21.	Kaushal Jha	CRADLE - Patna	Jha

नाक परामर्श बैठक			
क्रमांक	नाम	जाँव	हस्ताक्षर
1	पारस पापण	समदा नाका	पारस पापण
2	Rajendra	Semda Si 2	Rajendra
3	Vijaya	Semda Si 2	Vijaya
4	मोहन मंडल मोहन मंडल	" "	मोहन मंडल
5	पद्मिनी पापण	समदा नाका	पद्मिनी पापण
6	गोविंद पापण	" "	गोविंद पापण
7	जयशंकर पापण		
8	अजित मंडल	समदा नाका	
9	दिनेश पापण		दिनेश पापण
10	शांत मोहन		
11	अशोक कुमारे		
12	सिद्धेश्वर मंडल		
13	आरती रविमाल		
14	गौरव पापण		
15	गोकुल रविमाल		

क्रमांक	नाम	गांव	ईए नक्षत्र
16	शिवजी महलदा	रामडु	
17	मंगलदा	रामदा	
18	शिवजी महलदा	रामदा	
19	मंगलदा	रामदा	
20	महेशदा	रामदा	
21	रामदा	रामदा	
22	रामदा	रामदा	
23	रामदा	रामदा	
24	रामदा	रामदा	
25	शिवदा	रामदा	
26	रामदा	रामदा	
27	रामदा	रामदा	
28	रामदा	रामदा	
29	रामदा	रामदा	
30	रामदा	रामदा	

**Annexure 5.5: List of Invitee of Formal Consultant at Patna**

S. No	Name	Designation	Organization	Contact No.	Email id
1	Anjani Kumar Dubey	Joint Transport Commissioner, Govt of Jharkhand, Ranchi	Govt of Jharkhand, Ranchi	947070770	
2	Nitin Kaushal	Associate Director	WWF India 172- B, Lodi-Road, New Delhi- 03	9910737289	<a href="mailto:nkaushal@wwfindia.net">nkaushal@wwfindia.net</a>
3	Dr. R.K. Singh	Adl. Chief Scientist	WAPCOS Ltd.	8005421512	
4	S.K. Jain	Director	EQMS India	9810297612	<a href="mailto:skjain@eqmsindia.org">skjain@eqmsindia.org</a>
5	Koushalendra Kumar	Executive Director	BGJAS	9431073450	<a href="mailto:bgjas1@gmail.com">bgjas1@gmail.com</a>
6	Ashok Chawla	Director	JS Marine Services Pvt. Ltd.	9794050007	<a href="mailto:ashok@jsmarine.in">ashok@jsmarine.in</a>
7	Dharmendra Kumar Rai	News Editor	AIR NEWS	8986216029	<a href="mailto:dkrai24@gmail.com">dkrai24@gmail.com</a>
8	Prof. Nil Ratan	ANSISS	AN Sinha Institute, Patna	9431735667	
9	Vijay Kumar	Sr. Prog. Manager	Kanchan Seva Ashvani Angala, Muzaffarpur	9430918738	
10	Gyatri Patel	Do	Do	9430046134	
11	V. C. Srivastava		Bosting Road Park	9939982222	
12	Dhananjay	—	NGO	9891200091	<a href="mailto:bhrdk13@gmail.com">bhrdk13@gmail.com</a>
13	Lakshman Jha	Executive Engineer	WATER RESOURCES Deptt., Patna	9473197165	<a href="mailto:lakshmanjha20@gmail.com">lakshmanjha20@gmail.com</a>
14	Hjari Narain	Chief Engineer	do.	9473197160	<a href="mailto:cewrdisabadpatna@gmail.com">cewrdisabadpatna@gmail.com</a>
15	L. Kosygin Singh	Scientist-D	Zoological Survey of India, Kolkata	8017472275	<a href="mailto:lkzsis@yahoo.com">lkzsis@yahoo.com</a>
16	Dr. Navneet S.	Scientist-D	do.	9504120703	<a href="mailto:nsgill007@gmail.com">nsgill007@gmail.com</a>
17	Arvind Kumar Pandey	Sr. Consultant (Env. & Water Resources)	Vision EIS consulting Pvt. Ltd., NOIDA	9818530566	<a href="mailto:arvind.pandey@visioneis.org">arvind.pandey@visioneis.org</a>
18	Shailendra	Business Associate	NCCF, Nehru Place, New Delhi	973207071	<a href="mailto:shailendra7071@gmail.com">shailendra7071@gmail.com</a>
19	Ripudaman K	Secretary	GPVS Gram Pradyogik Vikas Sansthan, Patna	9973023966	<a href="mailto:gpvs_rd@hotmail.com">gpvs_rd@hotmail.com</a>
20	Rakesh Tiwary	Asst. Professor	A N Sinha Institute of Social Studies	9771024080	<a href="mailto:rakeshtiwary1@gmail.com">rakeshtiwary1@gmail.com</a>
21	Rupesh	Secretary	Koshish, Abdin House, Fraser Road, Patna	9431021035	<a href="mailto:koshish.office@gmail.com">koshish.office@gmail.com</a>

22	Ritwij Kumar	P.C.	do.	9934463 192	do.
23	Mohd. Najeer Ahsan	Sr. Social Mngmnt. Specialist	National Mission for Clean Ganga, Delhi	9871788 662	<a href="mailto:najeer_ahsan@yahoo.com">najeer_ahsan@yahoo.com</a>
24	Sanjay Tiwari	Program Officer	Center for Environment Education, Lucknow	9839043 300	<a href="mailto:sanjay.tiwari@ceeindia.org">sanjay.tiwari@ceeindia.org</a>
25	K. Praveen Rao	Chief Conservator of Forests, Wildlife, Kanpur	Forest Dept. , U.P.	9411052 235	<a href="mailto:ccfwlkanpur@rediffmail.com">ccfwlkanpur@rediffmail.com</a>
26	Manoj k. Verma	Idirector	IDF, Patna	9431456 434	<a href="mailto:idfho@idfngoorg">idfho@idfngoorg</a>
27	Amitabh Prabhakar	Director & S.E. ©	CWC, Patna	9973049 058	<a href="mailto:celqbo_cwc@nic.in">celqbo_cwc@nic.in</a>
28	R. S. Sah	Adv.WB	Mumbai	8080774 851	<a href="mailto:sah.ramsagar@gmail.com">sah.ramsagar@gmail.com</a>
29	Flemming Jakobsen	Managing Director	DHI (India) Water & Environment Pvt. Ltd.	9910632 436	<a href="mailto:sab@dhigroup.com">sab@dhigroup.com</a>
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**Annexure 5.6: Attendance Sheet of Consultant at Patna**

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