

Presentation on Indian Inland Waterways

Merseille (France), 13 March, 2012

by

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Inland Waterways Authority of India

- Inland Waterways Authority of India (IWAI) was set up in October 1986 vide IWAI Act 1985
- National Waterways (NW) declared through Acts of Parliament come under the purview of Central Govt/ IWAI; other waterways under the respective State Govts
- IWAI is mandated to take up
 - Infrastructure development & regulation on NWs
 - Techno- economic feasibility studies
 - Advise the Central Govt on IWT matters
 - Assistance to States in IWT development

AFGHANISTAN



MAP OF INDIA SHOWING IMPORTANT WATERWAYS

CHINA

PAKISTAN

TIBET

DELHI

NEPAL

BHUTAN

PANDU

NW-2
BARAK R.

KARIMGANJ

GANGA R.

NW-1
DHULIAN

BANGLADESH

KOLKATA

SUNDERBANS

MYANMAR

MAHANADI R.

BRAHMANI R.

NW-5

EAST COAST CANAL

NARMADA R.

TAPI R.

I N D I A

GODAVARI R.

ARABIAN SEA

ELURU CANAL

KAKINADA CANAL

KRISHNA R.

NW-4

COMMAMURU CANAL

BUCKINGHAM CANAL

BAY OF BENGAL

MANDOVI, ZUARI RIVERS & CUMBERJUA CANAL

LAKSHADWEEP

UDYOGAMANDAL CANAL

ANDAMAN & NICOBAR ISLANDS

WEST COAST CANAL

NW-3

CHAMPAKKARA CANAL

SRI LANKA

INDIAN OCEAN

Legend

-  Declared
-  Under consideration
-  Indo-Bangladesh Protocol Route

IWT Scenario...snapshot

- There are about 14,500 km of navigable waterways in India (NTPC Report- 1980)
- Out of this only 4,332 km have been declared as National Waterways
- There are five National Waterways
 - NW 1 - declared in 1986
 - NW 2 - declared in 1988
 - NW 3 - declared in 1993
 - NW 4 & 5 - declared in 2008
- Cargo movement by IWT increased from 32 MMT (1.6 btkm) in 2003-4 to 74 MMT (4.8 btkm) in 2010-11
- IWT in India has only 0.5 % share; China has 8.7 %, USA 8.3 %, Europe 7% (Netherlands 35%)

National Waterway-1

Ganga – Bhagirathi – Hooghly river system

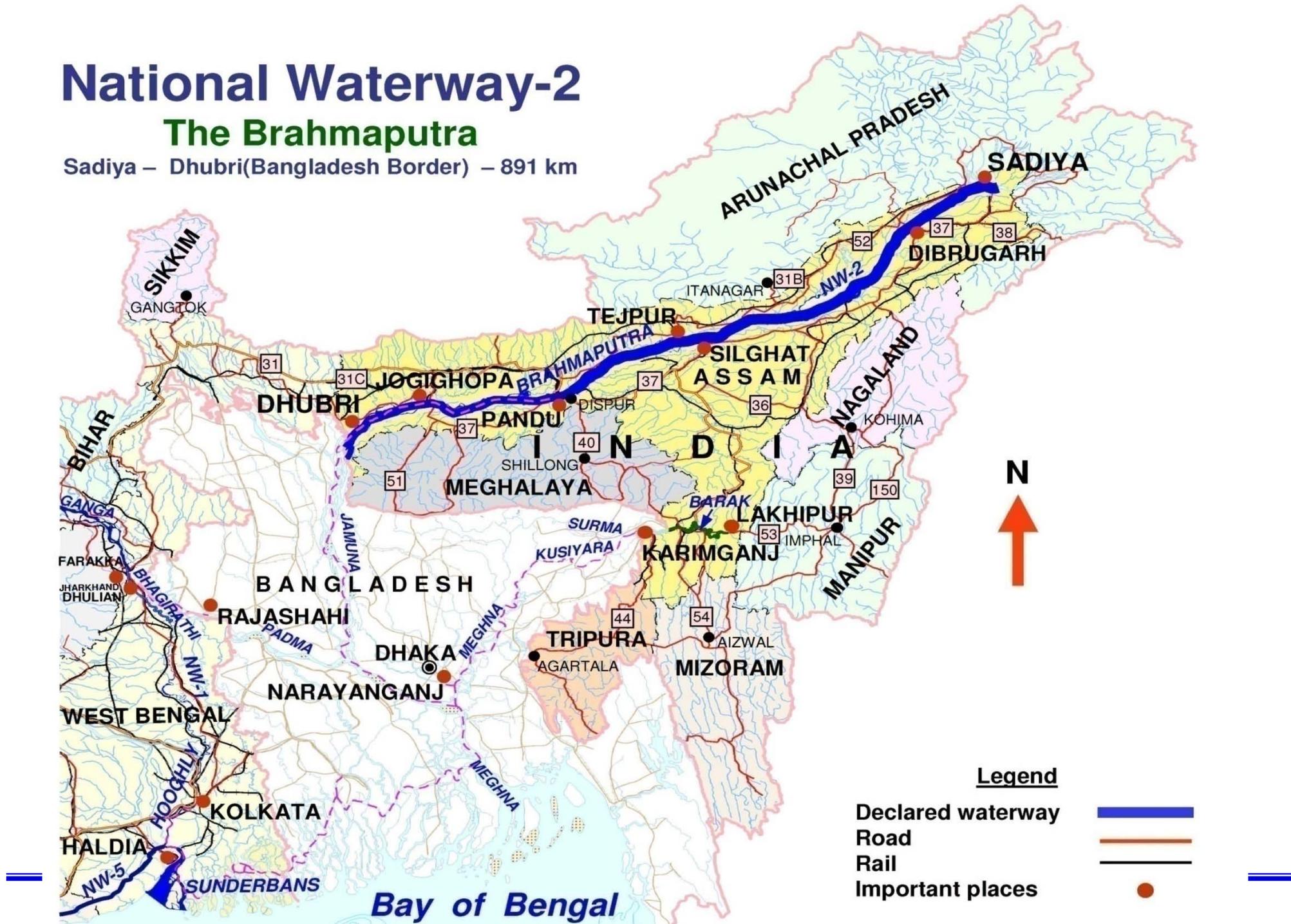
Haldia(Sagar island) – Allahabad –1620 km



National Waterway-2

The Brahmaputra

Sadiya – Dhubri(Bangladesh Border) – 891 km





National Waterway-3

**West Coast Canal
(Kottapuram – Kollam)
Champakkara & Udyogamandal canals**

River distance

Kottapuram - Kollam	168 km
Udyogamandal canal	23 km
Champakkara canal	14 km
Total length	205 km

Arabian Sea

Legend

- Waterway alignment
- Road
- Rail
- Important places





National Waterway-5

(East Coast Canal integrated with Brahmani and Mahanadi delta river system)



Infrastructure provided on NW 1, 2 & 3

A. Fairway

NW 1

- ✓ 2.5 m depth in Haldia -Farakka (560 km)
- ✓ 2.5 m in Farakka - Barh (430 km)
- ✓ 2.0 m in Barh - Ghazipur (260 km)
- ✓ 1.5 m in Ghazipur- Allahabad (370 km)

NW 2

- ✓ 2.5 m in Dhubri- Neamati (630 km),
- ✓ 2.0 m in Neamati- Dibrugarh (138 km)
- ✓ 1.5 m in Dibrugarh- Sadiya (123 km)

NW 3

- ✓ 2.0 m in 121 km stretch
- ✓ 1.5 m in 84 km stretch (dredging in 22 km is in progress)

Infrastructure provided on NW 1, 2 & 3

B. Navigational aids

- Fortnightly surveys and issue of River Notices
- Navigation charts and river atlas
- 24 hrs navigation aids in Kolkata- Ballia (1000 km) in NW-1, Dhubri- Silghat (440 km) in NW-2 and entire NW-3
- DGPS stations at Swarupganj, Bhagalpur and Patna on NW-1; Jogighopa on NW-2 and coming up at Varanasi on NW-1 and at Silghat & Dibrugarh in NW-2
- Pilotage assistance also available on NW-1 & 2

•24 hrs navigation aids in Brahmaputra



Infrastructure provided on NW 1, 2 & 3

C. Terminals

NW-1

- Fixed RCC terminals at Patna, Farakka & Pakur
- Fixed terminals coming up at Kolkata & Varanasi
- Floating terminals at 16 places

NW-2

- Fixed RCC terminal at Pandu
- Floating terminals at 8 places

NW-3

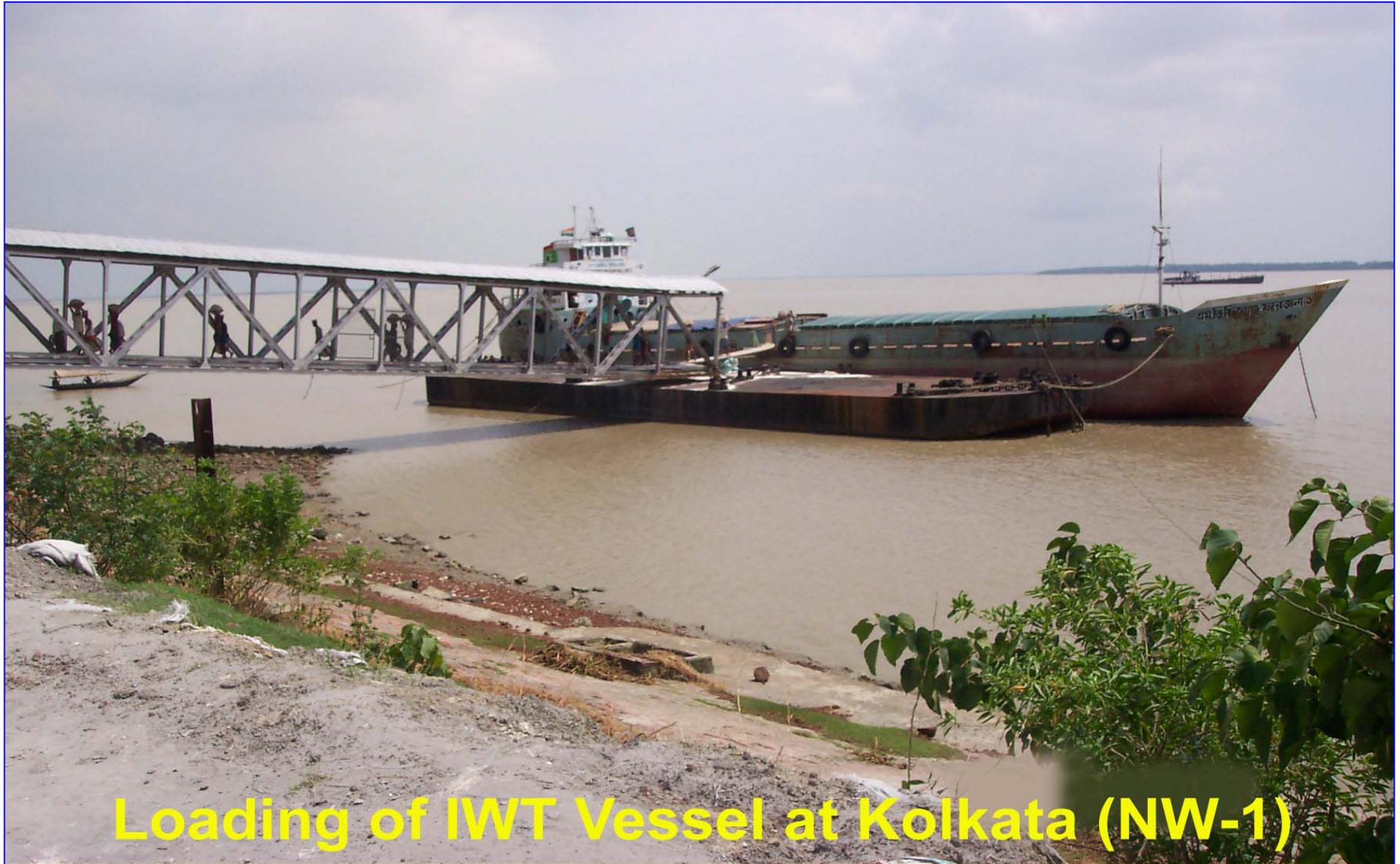
- Fixed RCC terminals at 10 places



Permanent IWT terminal at Gaighat, Patna



Mobile Crane with Hook and Grab in NW-1



Loading of IWT Vessel at Kolkata (NW-1)

Fly ash terminal at Budge-budge, Kolkata



Low level jetty at Pandu



Low level jetty at Pandu





Loading of HSD at IWT Terminal, Silghat (NW-2)

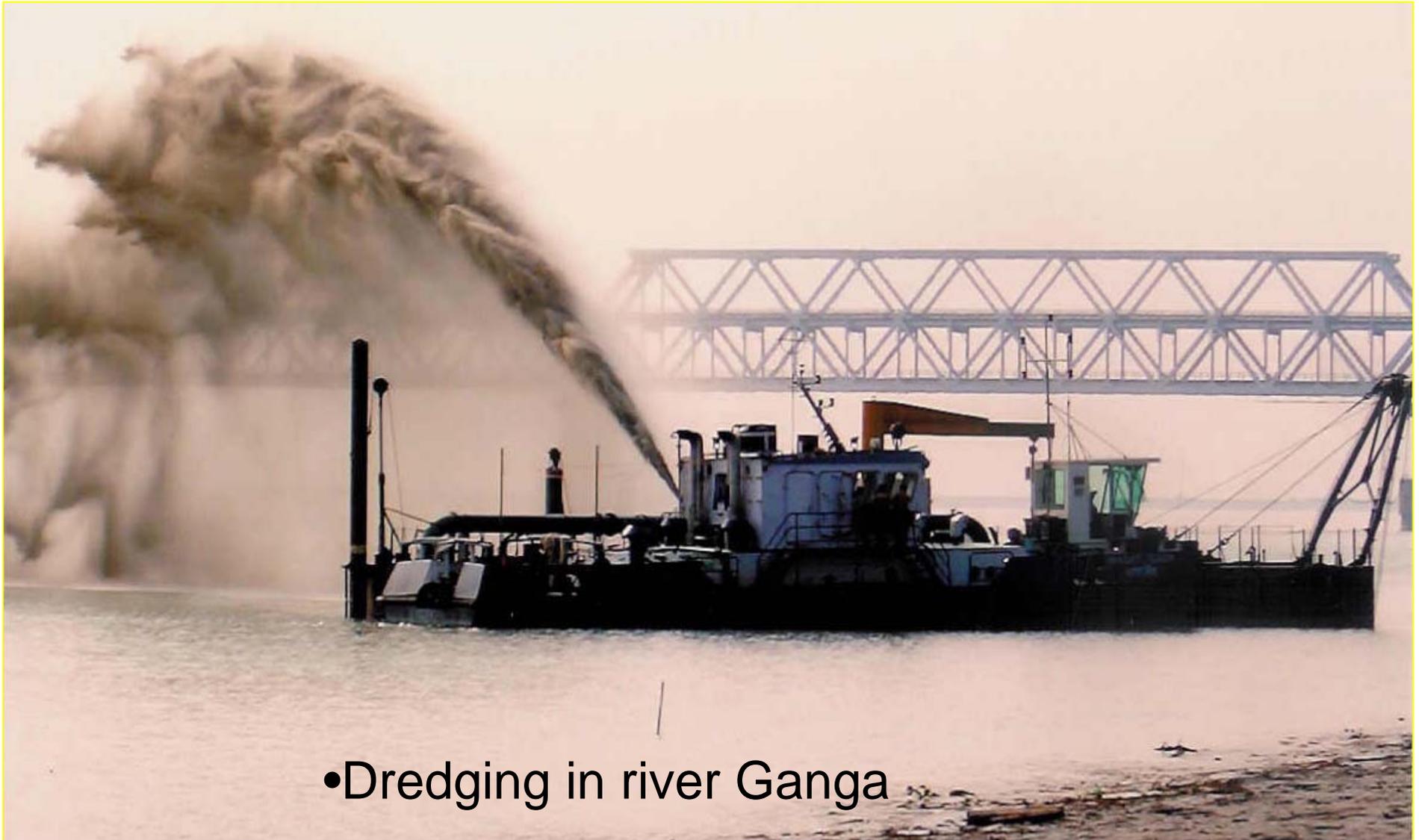


Terminal at Aluva, Kochi (NW-3)

Infrastructure provided on NW 1, 2 & 3

D. Dredgers, Survey launches & cargo vessels

	NW-1	NW-2	NW-3
Dredgers	9	2	4
Survey launches	12	5	1
Cargo vessels (for demonstration)	4	3	-



•Dredging in river Ganga

- Hydraulic surface dredger in Brahmaputra



Cargo vessel MV Rajagopalachari



Cargo vessel in Brahmaputra



National Waterways 4 & 5

- . Declared in November 2008
- . As per the Detailed Project Report (March 2010)
 - NW 4 (1078 km) ; Estt Cost : Rs 1515 cr
 - NW 5 (588 km) ; Estt Cost : Rs 4210 cr
 - Govt has decided to develop commercially viable stretches under PPP mode
 - Department of Economic Affairs (DEA) along with Asian Development Bank (ADB) has selected a Transaction Advisor (TA)
 - TA will identify a Concessionaire (developer) to develop these stretches.

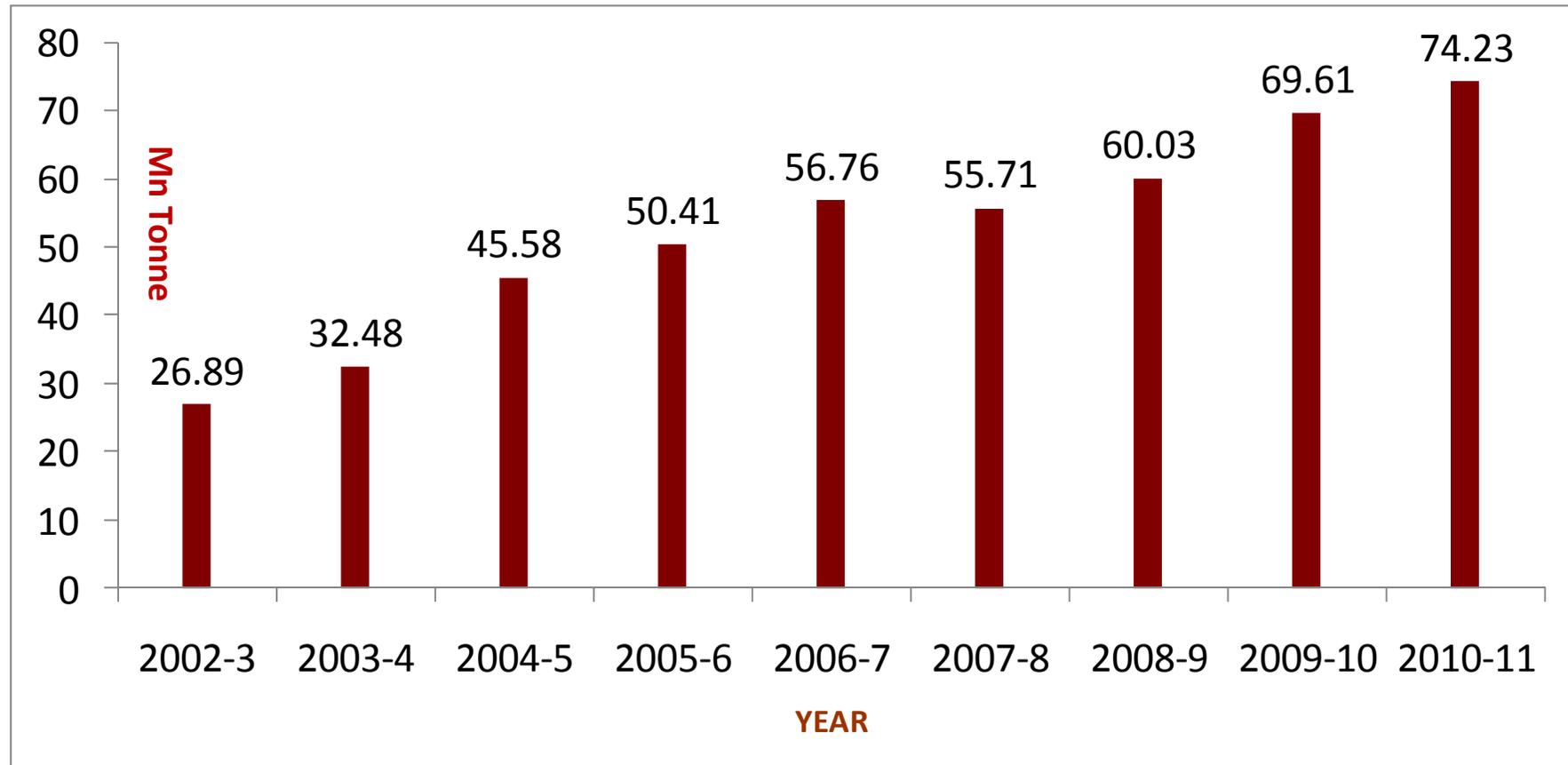


Proposed National Waterway – 6 : River Barak

- ✓ Length –121 km
- ✓ Development cost -Rs 123 cr (at 2012 prices)
- ✓ Status: Declaration in process



Cargo movement by IWT steadily increasing and reached 74 million tonne (4.8 btkm)



Movement of ODC on NWs

- ODC movement on NW 1, 2 & 3 being done for power plants, power grid, refineries etc (In tonnes)

	2008-09	2009-10	2010-11	2011-12 (June 11)
NW-1	672	3308	9407	4809
NW-2	960	1092	679	-
NW-3	-	800	-	-
Total	1632	5200	10086	4809

- User charges for ODC levied from Jan '10
 - Revenue collection:
 - 2009-10 – Rs 0.16 cr
 - 2010-11 – Rs 1.48 cr
 - 2011-12 - Rs 2.04 cr (July 11)

- ODC movement in Brahmaputra





Container movement on NW 3



Cruise vessel on NW-1 (Ganga)



Cruise vessel on NW-2 (Brahmaputra)



Cargo potential

- Thermal Coal
 - On NW 1 there are 10 thermal power plants (TPS);
 - 11 more TPS expected
 - Total coal requirement – 70 Mn T per yr of which 14 Mn T to be imported for which IWT could be best solution
 - National Thermal Power Corporation (NTPC) committed 3 Mn T per Yr imported coal by IWT for Farakka for 7 years
 - TPA signed among IWAI, NTPC & Jindal ITF on 11.8.11
 - This may lead to more such projects
- Fly Ash
 - Fly ash movement by IWT increased from 2 lakh tonne in 2003-04 to 15 lakh tonne in 2010-11
 - With more power plants coming up, further increase expected

Cargo potential

- Foodgrains
 - Food Corporation of India (FCI) proposed to transport 30,000 T per month from Kolkata to Agartala via Ashuganj
 - FCI also proposed internal movement in Assam by IWT
- Fertilisers
 - There are 7 fertilizer plants near NW 1 with possibility of transportation of 7.65 lakh T per year by IWT
- Containers
 - Daily 200 containers are moved between Bolghatty & Willingdon islands on NW 3
 - There is prospects of movement of containers on NW-1 & 2

National Inland Navigation Institute

- The NINI was set up at Patna in 2004
- It has lecture halls, auditorium, hostel, library, dining facility etc
- Since then IWT training is being provided
- From 2009-10 its management has been outsourced to a professional firm
- Simulator based training introduced in 2010
- So far, training imparted to 1300 personnel

राष्ट्रीय अन्तर्देशीय नौवहन संस्थान
NATIONAL INLAND NAVIGATION INSTITUTE

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NINI building at Patna



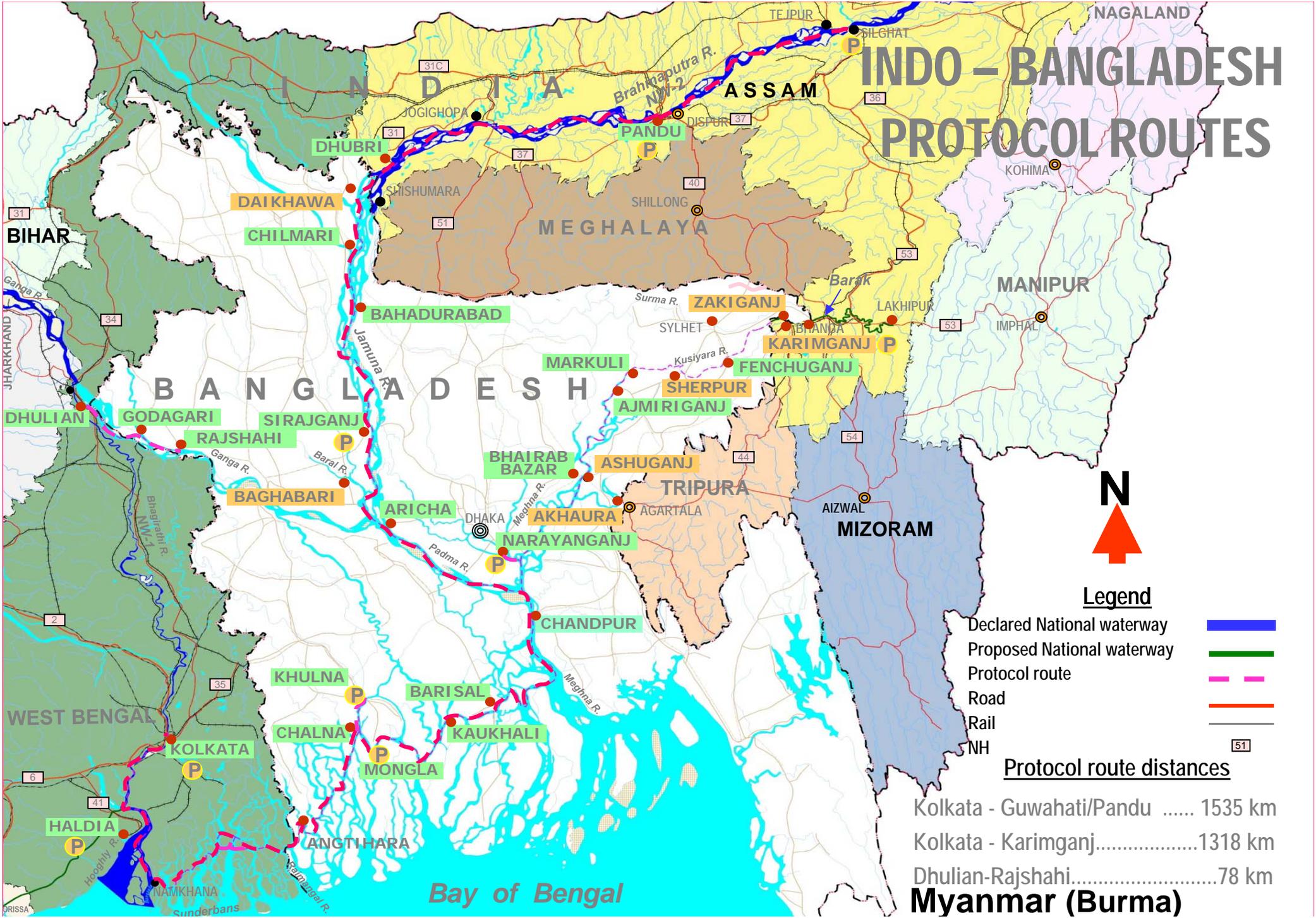


Simulator at NINI

IWT & T Protocol

- An Inland Water Transit and Trade Protocol exists between India and Bangladesh
- It has four routes: (i) Kolkata-Silghat (ii) Kolkata-Karimganj (iii) Silghat-Karimganj (iv) Dhulian-Rajshahi
- There are five ports of Call in each country
 - ***India:*** Kolkata, Haldia, Pandu, Karimganj & Silghat
 - ***Bangladesh:*** Narayanganj, Khulna, Sirajganj, Mongla & Ashuganj
- The Protocol is presently valid up to 31.03.2012

INDO - BANGLADESH PROTOCOL ROUTES



Legend

- Declared National waterway █
- Proposed National waterway █
- Protocol route █
- Road █
- Rail █
- NH 51

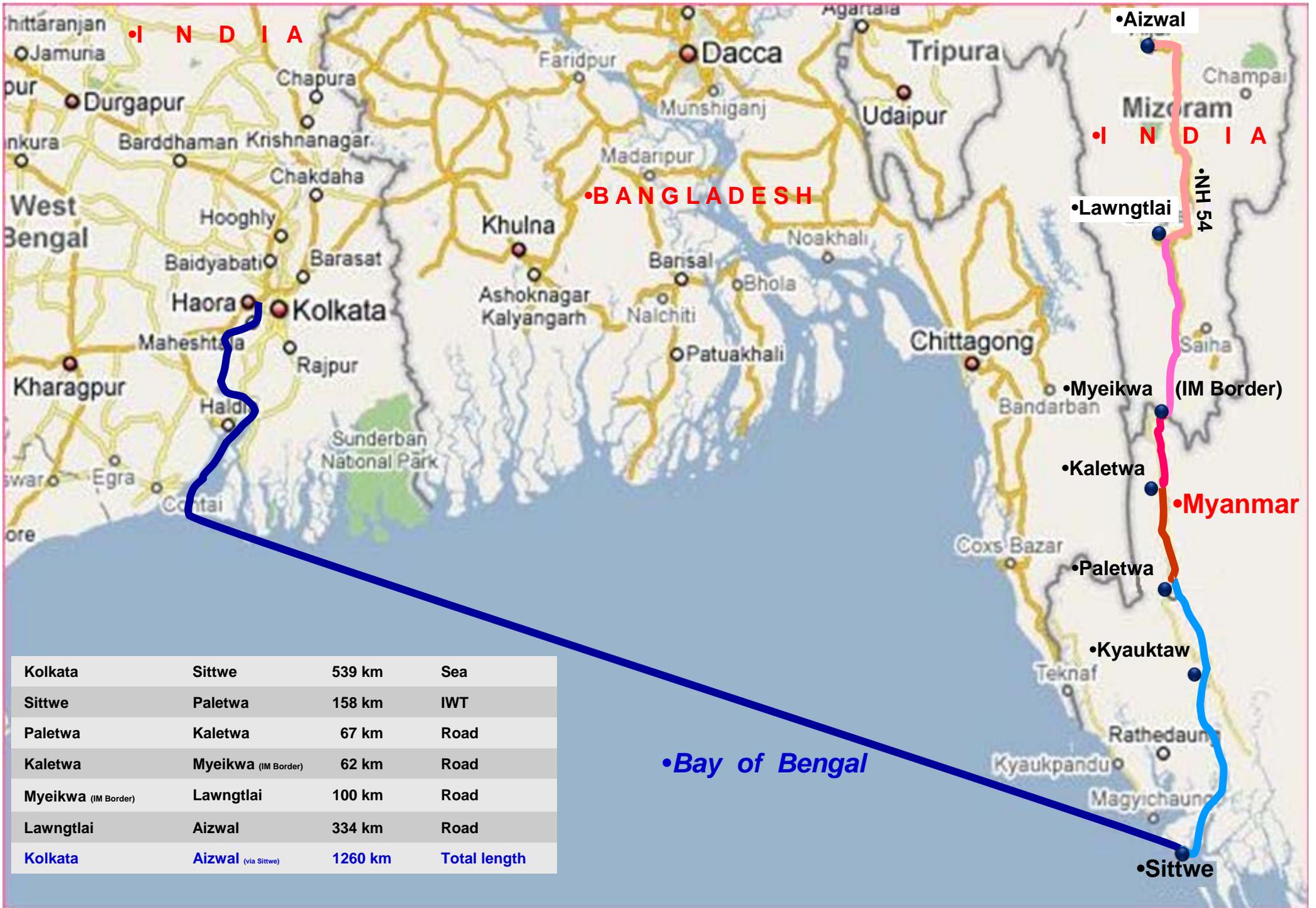
Protocol route distances

Kolkata - Guwahati/Pandu	1535 km
Kolkata - Karimganj.....	1318 km
Dhulian-Rajshahi.....	78 km

Myanmar (Burma)

Kaladan multi modal transport project

- The project is funded by MEA
- Provides alternative connectivity of North- East with mainland India through Kaladan river & Sittwe port in Myanmar
- Multi modal project: Road- IWT- Sea
- IWAI as PDC did the bid process management
- M/s Essar Projects appointed by MEA as main contractor for port & IWT components
- Cost of work (IWT & Port): Rs 342 crore
- Completion period is 3 years (June, 2013)
- Construction of Sittwe port is in progress



Critical Issues for revival of IWT sector

- Shortage of Inland Vessels
 - Inland Vessels Building Subsidy Scheme to be revived
 - Vessel Leasing Company to be set up
 - Level playing field for IWT: subsidy at par with rail & road
- Long term cargo assurance by shippers

THANK YOU

