

# **Inland Water Transport Sector**

**Inland Waterways Authority of India**

**21 April 2008  
Mumbai**

# Structure of Presentation

- IWT Scenario
- Essential requirements
- National Waterways
- Feeder routes
- Initiatives to attract private sector
- Other new initiatives
- Areas where Private sector/ other stake-holders can step in

# IWT Scenario

*...snapshot*

- 14,500 kms of navigable inland waterways in the country.
- IWAI – the infrastructure provider, developer and regulator set up in 1986
- Only National Waterways come under the purview of Central Govt/IWAI
- Other Waterways are in the domain of respective State Govts
- 3 National Waterways, 3 more under process

# IWT Scenario

*...snapshot*

- Cargo movement by IWT showing increasing trend: 55.82 million tonne (3.38 btkm) in 2006-07; from 32.48 million tonnes (1.63 btkm) in 2003-04
- Like Motor Vehicles Act, operation of inland vessels is governed by Inland Vessels Act, 1917 (going to be amended soon)

# Essential requirements

- Fairway
- Navigational aids
- Terminals
- Cargo handling equipments
- Inter-modal linkages

# National Waterway - 1

- The Ganga- Bhagirathi- Hooghly river from Haldia to Allahabad – 1620 km
- Declared as National Waterway in 1986
- IWAI provides/ maintains IWT infrastructure
- Action plan for making it fully functional prepared by IWAI

## Fairway

- Least available depth (LAD) of 2 m maintained between Haldia-Patna (1020 km); 1.5 m between Patna- Varanasi (363 km)

... (contd)

# National Waterway - 1

- IWAI has 4 dredgers; 2 more being constructed
- Talway survey of entire river being carried out every fortnight
- For this IWAI has 14 survey vessels

## Navigational aids

- Day navigation aids available in entire waterway
- Night navigation aids also available between Tribeni and Farakka (364 km)

.... (contd)

# National Waterway - 1

- Project for providing 24 hrs navigation aids with a modern DGPS based system for entire waterway under implementation

## Terminals

- Fixed terminals exist at Pakur, Farakka and Patna (low level)
- Floating terminals exist at Haldia, Kolkata, Rajmahal, Sahibganj, Manihari, Bhagalpur, Semaria, Ballia, Kaithy, and varanasi

.... (contd)



# National Waterway - 1

- New fixed terminals are planned at Haldia, GR Jetty (Kolkata), Patna (High level) and Varanasi
- New floating terminals are planned at Diamond Harbour, Katwa, Tribeni, Behrampur, Jangipur, Doriganj, Gazipur and Allahabad

# National Waterway - 2

- The Brahmaputra from Dhubri to Sadiya – 891 km
- Declared as National Waterway in 1988
- IWAI provides/ maintains IWT infrastructure
- Action plan for making it fully functional prepared by IWAI

## Fairway

- Least available depth (LAD) of 2 m maintained between Dhubri- Dibrugarh (768 km); 1.0 m between Dibrugarh- Sadiya

.... (contd)

# National Waterway - 2

- IWAI has 2 dredgers; 5 more being constructed
- Talway survey of entire river being carried out every fortnight
- For this IWAI has 6 survey vessels

## Navigational aids

- Day navigation aids available in entire waterway
- Night navigation aids also available between Dhubri and Pandu (255 km)

.... (contd)

# National Waterway - 2

- Project for providing 24 hrs navigation aids with a modern DGPS based system for entire waterway under implementation

## Terminals

- Fixed terminal (low level) under construction at Pandu (Guwahati)- nearing completion
- Floating terminals exist at Dhubri, Jogighopa, Pandu, Tezpur, Silghat, Jamuguri, Neamati and Dibrugarh (Bogibil)

.... (contd)

# National Waterway - 2

- A coal terminal is under construction at Jogighopa
- Construction of High level jetty at Pandu to start soon
- New floating terminals are planned at Sadiya and Saikhowa

# National Waterway – 3

- ➔ Kottapuram-Kollam sector of West Coast canal with Champakara & Udyogmandal canals- 205 km
- Declared as National Waterway in 1993
- IWAI provides/ maintains IWT infrastructure
- Action plan for making it fully functional prepared by IWAI

## Fairway

- LAD 2 m maintained in Kochi- Thakazhi sector of WCC and Udyogmandal & Champakara canals (121 km); 1.2 m LAD in rest

.... (contd)

# National Waterway - 3

- IWAI has 2 dredgers; plans to procure 2 more
- Talway survey of entire river being carried out every fortnight
- For this IWAI has 1 survey vessel; plans to procure 1 more

## Navigational aids

- Day navigation aids available in entire waterway
- Night navigation aids also available in Kochi-Allapuzha and Udyogmandal & Champakara canals (104 km) – Being extended in entire waterway

.... (contd)

# National Waterway - 3

- Terminals
- Fixed terminals exist at Kayamkulam, Trikkunnappuzha, Viakom, Aluva, Kottapuram, Taneermukham and Maradu. Some captive terminals also exist
- Terminals also planned at Kollam and Allapuzha



# Action Plan

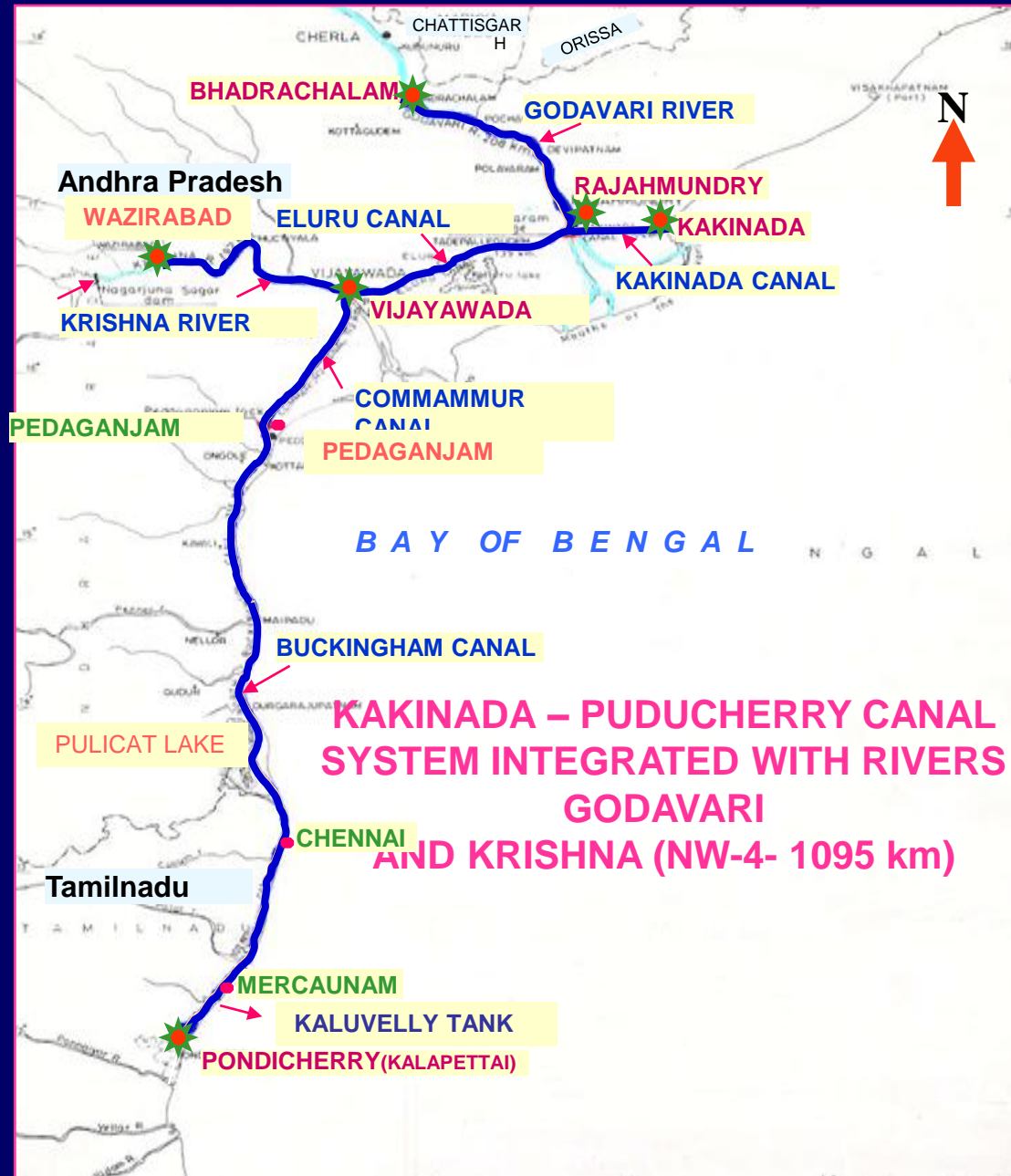
- An Action Plan has been prepared to make 3 NWs fully functional by March 2010
- Investment for three NWs – Rs 800 Cr
- It includes provision of
  - Assured LAD
  - 24 hrs Navigational aids with DGPS
  - Judicious mix of fixed and floating terminals
  - Demonstrative cargo service by IWAI

# Action Plan

- It is felt that once NWs are made fully functional, shippers and IWT operators will have more confidence in IWT sector resulting in increased and effective utilisation of IWT infrastructure

# Proposed National Waterway (No 4)

- **Kakinada - Puducherry Canals integrated with rivers Godavari and Krishna**
  - ❖ Length- 1095 km
  - ❖ Development cost- Rs 542 Cr (at 2002 prices)
- **Status:**
  - ❖ Bill introduced in Parliament
  - ❖ As directed with further consultation with States underway



# Proposed National Waterway (No 5)

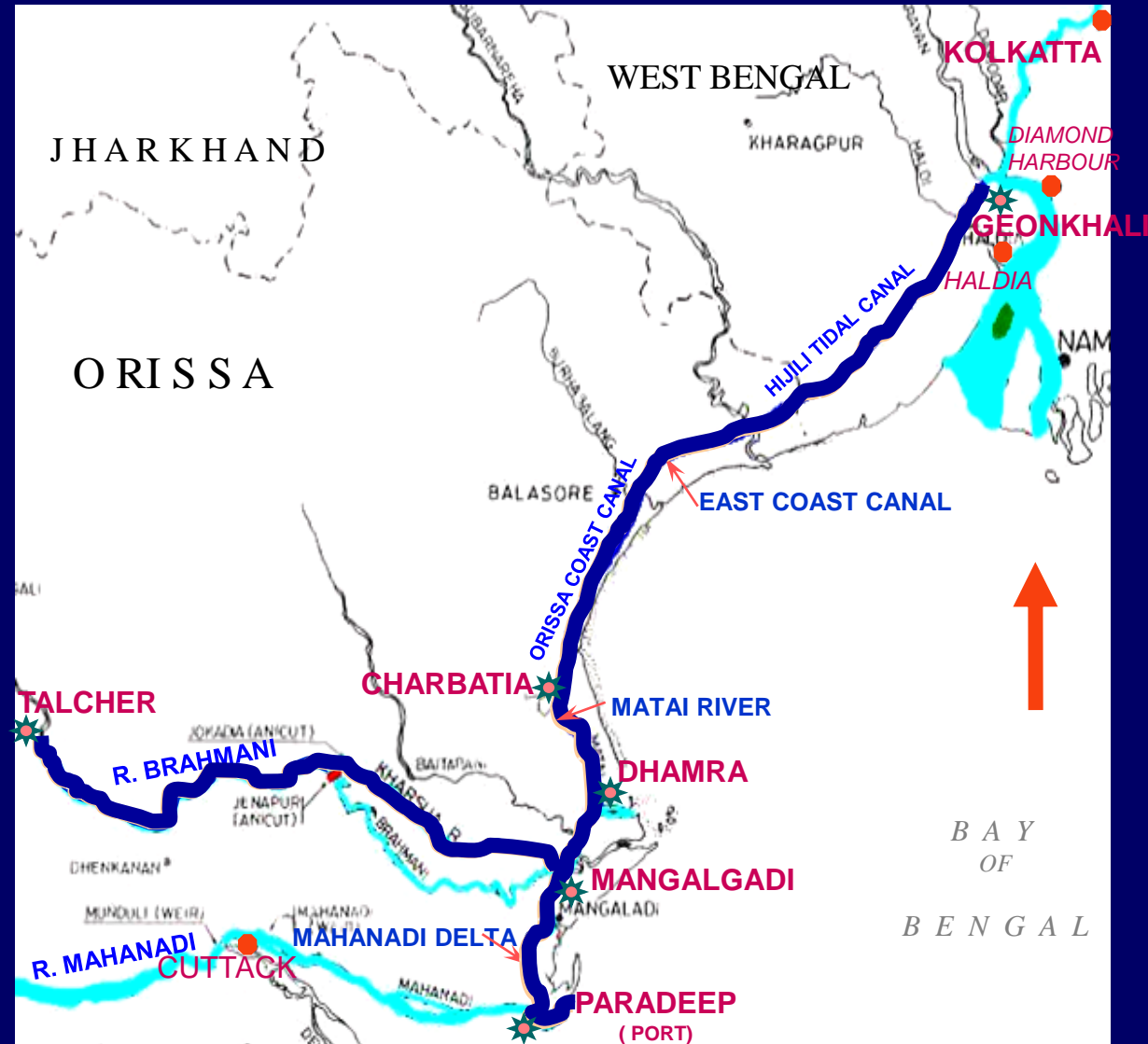
- East Coast Canal with Brahmani river & Mahanadi delta

- ❖ Length - 623 km

- ❖ Development cost- Rs 1526cr (at 2002 prices)

- Status:

- ❖ Bill introduced in Parliament



# Proposed National Waterway (No 6)

## River Barak



- Length -121km
- ❖ Development cost -Rs 46 cr (at 2002 prices)
- Status: Bill introduced in Parliament

# Development of feeder routes

- All the big rivers have several tributaries
- Many of these tributaries can also be developed for navigation
- When developed, they will act as feeder routes to Major Waterways (like a fish bone structure) and facilitate port-hinterland connectivity through inland waterways

# Development of feeder routes

- For this, States are encouraged to develop smaller rivers/ canals (feeder routes)
- Till March 07 there was a CSS for this, which has been discontinued by Planning Commission from 1.4.07. IWAI has requested the Planning Commission to revive this scheme

# Encouraging Vessel Building by Private Sector

- The infrastructure created by Govt must be effectively utilised
- However, IWT sector having remained neglected for a long time, not many entrepreneurs are willing to invest in inland vessels
- This results in under utilisation of whatever infrastructure is created
- This puts brakes on creation of infrastructure/development of IWT sector



# Encouraging Vessel Building by Private Sector

- Hence there was an Inland Vessel Building Subsidy Scheme under which 30% cost of an inland vessel built in an Indian shipyard for operation on National Waterways was being subsidised by IWAI
- However, this scheme too has expired on 31.3.07 and IWAI is trying to get it extended

# Initiatives to attract private investment

1. IWAI Act amended in Sep'01 to enable it to enter into joint ventures concerning inland shipping by way of equity participation
  - Efforts started in 2002-03 when IFCI Ltd was appointed as a consultant
  - 17 priority projects identified (11 for infrastructure and 6 for vessels)
  - 11 high priority projects (5 for infrastructure and 6 for vessels) were duly advertised for competitive bidding

# Initiatives to attract private investment

- Through competitive bidding we have succeeded in 6 projects, 3 for infrastructure and 3 for vessels
- MOU for one Joint Venture for setting up operation & management of 3 jetties for fly ash handling in West Bengal signed on 30.10.2006 [cost – Rs 270 lakh]
- Process for formation of JV on

# Initiative to attract private investment

- Three JV projects for cargo vessels finalised (MoU's signed on 25.01.2007)
  - ✓ Kolkata-Pandu - 6 Barges [cost- Rs 33 cr]
  - ✓ Kolkata- Mongla - 8 Barges [cost- Rs 44 cr]
  - ✓ Kolkata- Dhubri - 2 Barges [cost- Rs 10 cr]
- Process for formation of JV on

# Initiative to attract Private Investment

2. Existing unused high level jetty at Pandu was advertised for possible dedicated use by parties on 10.11.2006
  - Based on competitive bidding, 7100 sqm of area in Pandu terminal is being given on lease to M/s. Vinay Cement from 1.1.08
  - M/s. Vinay Cements will use this facility for 15 years to transport 0.7 mtpa cargo which may go up to 3 mtpa

# PDO & PDF mechanism for development of IWT projects

3. Selection of a Project Development Organisation (PDO) through competitive bidding process based on success fee concept
- PDO to be a 50:50 partner with IWAI in developing and processing PPP projects
  - Through competitive bidding, IL&FS has been identified and is being appointed as PDO

# Other new initiatives

1. Movement of NTPC coal from Haldia to Farakka – Feasibility study completed
2. Movement of coal from Paradeep/ Dhamra to Farakka -
  - o Will ensure integration of Coastal shipping and IWT
3. Movement of fly ash from Farakka to Pandu and clinker/limestone/ coal/ cement from Pandu to Kolkata -- Vinay Cements Ltd

# Other new initiatives

4. Possible IWT link from Kochi city to Kochi Airport
5. Decongestion of Mumbai- Evacuation of cargo by IWT/coastal mode – TEF study underway
6. Declaration of Goa Waterways as a National Waterway - Matter being discussed with State Govt of Goa



# IWT is a Thrust Area

- PMO has identified IWT sector as a Thrust area. It is envisaged therein that its share to be enhanced from present level of less than 1% to at least 2%
- Thus IWAI and Govt are committed to develop this mode as an alternative/ supplementary/ complimentary mode in a Multimodal transport network/ logistic supply chain

# Areas where private sector/stakeholders can step in

- Inland Vessels – Cargo/ passenger/ dredgers
  - New Technology
  - Joint Venture companies in shipbuilding
- River Training – NW-1 and NW-2
- Terminals – Container/ General Cargo/ POL terminal etc
- Fit in IWT in the multi-modal transport network wherever viable IWT corridors exist

**THANK YOU**

# Main achievements of last 3 years

*...contd.*

- ❑ Low level jetty at Patna capable of handling containers completed
- ❑ Construction of similar Low level jetty at Pandu progressed substantially (likely to be completed soon)
- ❑ Container cranes for Patna and Pandu procured
- ❑ Projects for high level jetty at these terminals sanctioned
- ❑ Seven terminals constructed in NW-3
- ❑ Work in progress for construction of coal handling terminal at Jogighopa

# Main achievements of last 3 years

- ❑ To facilitate mechanised handling of cargo at floating terminals, four shore cranes and nine floating cranes procured
- ❑ With the advise of DGLL, projects prepared for providing state of art 24 hrs navigational aids in NW-1 and NW-2
- ❑ Regular cargo movement (edible oil, POL, stone chips, iron dust, silica sand etc) on NW-1 & 2 under fixed schedule
- ❑ For the first time regular cargo movement established between Haldia/Kolkata and Varanasi

# Main achievements of last 3 years

- ❑ One POL tanker and one container vessel acquired
- ❑ For three more NWs (Kakinada- Puducherry+ Godavari+ Krishna, ECC+ Brahmani+ Mahanadi and Barak river) bills introduced in Parliament
- ❑ Significant progress of projects under CSS. 33 projects of 14 States sanctioned and progressed till Feb.07

# Main achievements of last 3 years

- ❑ Action Plan prepared for making 3 NWs, fully functional. Most of the projects sanctioned and under implementation
- ❑ Private Sector Participation & initiatives of IWAI received positive response and four MoUs for setting up of JV companies signed

# *Expenditure pattern*

<b>8<sup>th</sup> Plan</b>	<b>Rs 33 Cr</b>
<b>9<sup>th</sup> Plan</b>	<b>Rs 151 Cr</b>
<b>10<sup>th</sup> Plan (4 years)</b>	<b>Rs 281 Cr</b>
<b>2006-07</b>	<b>Rs 105 Cr</b>
<b>2007-08</b>	<b>Rs 80 Cr</b>



# Mumbai waterway system

ARABIAN SEA



## Legend



ROUTE	DISTANCE (in km)		
	ROAD	RAIL	IWT
MPT - BASSEIN	40	-	54
MPT - THANE	35	-	35.6
MPT - VASHI	27	-	22
MPT - BELAPUR	38	-	23
MPT - NAGOTHANA	97	-	57
BASSEIN - NAGOTHANA	102	-	105
MUMBAI - PANVEL	44	68	32
MUMBAI - THANE	33	33	33
MUMBAI - KALYAN	60	54	54

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