Inland Waterways - a viable option

a presentation by

Vivada Inland Waterways Ltd
Inland Waterways

• Basically in most areas IWT is a extension of the port services. But we at Vivada have harnessed the potential of the waterways in many fields
ACTIVITIES:

- Cargo Transportation –
  - POL products
  - Bulk Cargo
  - Deck Cargo
- River Cruising
- Ro Ro services
- Floating Retail Diesel Outlet
- Bunkering services

Have made each operation viable through innovation, efficiency and reliability. We would like to share this experience
POL PRODUCTS

- From Haldia Oil refinery to its various storage installation – we handle almost 0.5 million tons ie 50 m ton km. every year. This is the cheapest mode.

- Numaligarh to Budge Budge This is great example of Multimode competing with railways.
  - From Numaligarh refinery to Silghat a distance of 125 kms, tank lorries bring the material and from here barge is loaded for Budge Budge.
  
  IWT is preferred here due to no pilferage, easiness in handling the product.

- Potential exists for edible oil in NW1 & NW2.

Both these projects can be revived if long term contracts are given.
Bulk & Deck Cargo

We transport Bulk and deck cargo by IWT from Haldia to Assam. Spun pipes, Bitumen, steel plates from Kolkata / Haldia to Pandu. Tea, Jute, Paraffin wax, Coal from Pandu and other ports to Kolkata.

Most of these are moved generally by road excepting Bitumen & Coal which are by rail.

Both ways cargo is established with rates competitive to rail & road.
River Cruises on Ganges

We started 10 years ago day cruising at the behest of West Bengal Government.

Today Boat cruise parties are in vogue in Kolkata. All ferry operators admit this additional avenue to their fold is due to our endeavor.

We have sailed ahead by designing many river cruise products – Sunderban Eco cruises, Heritage trail, Europe on Ganges, Ganga Sagar Mela, City Cruises to name a few.

This endeavour has put West Bengal on international River Cruise map.
Ro Ro Ferry Services

- We operate at Sunderban islands the ferry services in collaboration with West Bengal Government.

Opportunity exists at many river banks for this segment where the bridges are away. The socio economic benefit of this service for a remote village is enormous.
Floating Retail Diesel Outlet.

- This is a unique facility for the fishing villages where trawlers struggle to get their consumables like fuel oil, ice, water.
- We have a barge at Namkhana, a fishing village at Buri Ganga. The fishing trawlers come along side the barge to take the fuel oil and other essentials.
• These waterway activities and more are available for any efficient operator.

• It is up to us harness the potential the waterway has to offer.

Efficiency in operation is adjudged by certain parameters
Operational Efficiency Parameters.

• Time
  – Speed:
    • IWT – 14 km/hr,
    • Rail – 30 km/hr
    • Road – 30 km/hr
  – Operational hours.
    • IWT – 12 hours,
    • Rail – 24 hours
    • Road – 24 hours.

Without night navigation - 25% efficient;
With night navigation it is 50%.
However night navigation is not the only factor to be addressed.

Other factors are:
  Fishing nets
  Tide if it is in tidal zone.
  Lock gate
Operational Efficiency Parameters.

- Cargo handling
  - Loading / Unloading rate –
    Manual rate; 200 tons / per day
    Mechanised : 1500 tons / per day.

Thus with mechanised facility it is at par.

- Carrying capacity In every mode there some Size limitations. In IWT
  - Draft
  - Turning radius.
    - Here IWT can make it efficient by increasing available draft through dredging.
Operational Efficiency Parameters.

• Fuel Efficiency
  – IWT - .0066 ltrs per ton km
  – Road - .0278 ltrs per ton km
  – While rail is in between the two.

• Manpower efficiency
  – IWT – 1 man per 100 tons with capacity to reduce as the tonnage increases.
  – Road – 1 man per 8 tons
  – Rail – 1 man per 400 tons. Excluding the support services.

• Capital Investment
  – IWT – Rs. 40000 per ton
  – Road – Rs. 125000 per ton
  – Rail – Rs. 100000 per ton including Locomotive.
## Summarising Operational efficiency
(of IWT in comparison with Rail & Road)

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<tbody>
<tr>
<td><strong>Time</strong></td>
<td>50%</td>
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<tr>
<td><strong>Cargo handling</strong></td>
<td>100%</td>
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<tr>
<td><strong>Capacity</strong></td>
<td>100%</td>
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<tr>
<td><strong>Fuel</strong></td>
<td>300%</td>
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<tr>
<td><strong>Investment &amp; Manpower</strong></td>
<td>200%</td>
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Then why is IWT not preferred

- Investment in IWT is not flowing due to lack of long term contracts, tax incentives, investment subsidy.
- Awareness needing promotions / publicity
- Viability is judged mostly by the cost and easiness of handling, which can be improved with facilities of mechanical handling, Night navigation etc.
- All other factors like environmental, socio economic are not duly appraised by a user unless it comes with an incentive tag.
What platform is required

- Some takeoff projects like Coal for Power plants.
- Incentive to user to entice to use IWT
- Incentives for investment.
- Infrastructure strengthening.
Take off Projects

• Coal – It is estimated that 3 lac tons per month imported coal would be consumed by the power plants situated alongside the river in NW1 alone.
• ODC cargo to the new power plants and other projects especially in the NE region through NW2.
• Bulk products like Cement, Steel, Coils, Pipes, Flyash again to NE.
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