Limitations on Transportation of Project and Odd Dimension Cargo

- Limited bridge capacities: National Highway Bridges are designed for class A loading only (70 MT tank load)
- Limitation of vertical clearance: Electrified railway crossings provide only 4.7 m of vertical clearance. Flyovers bridges provide 5.8m to 6m
- Limitation of carriage width: Majority two of lane highways are only 7.5m wide. Transporting large diameter equipments (specially for refineries, petrochemical plants) blocks and disrupts traffic
- Heavy lift aircraft can carry a maximum payload of 140 tons and require very long runways which are not found in remote areas
- Large projects in remote inland areas need extensive logistical surveys and planning in the DPR phase itself to identify and overcome bottlenecks
- Waterways is the often the only medium which can overcome these bottlenecks
Methodology of Project Cargo Transport Using Waterways

- Inland waterways are used to move cargo to variety of locations in India
  - NW 1 (Ganga) is used to take cargo from Kolkata to sites in Northern and Central India
  - NW 2 (Bhramaputra) is used to take cargo from Kolkata to sites in North East (Assam, Meghalaya, Arunachal Pradesh, Tripura etc). This route goes via Bangladesh
- Very few inland sites are situated on banks of waterways and as such part of the distance is covered by road
- Roll on – Roll off (Ro-Ro) jetty location is determined by logistics service provider and also built by them
- Minimum draught required for the barge is made available by IWAI
- Loading of the cargo on to the barge is done by either cranes or Ro-Ro mechanism
Ro/Ro jetty construction at Tezpur

Plug & Runner unit on Barge

Ro/Ro being done at Tezpur

Road transportation of Runner unit
Reactors loaded on Barge at Kolkata

Jetty construction for Ro/Ro at Jogighopa

Ro/Ro being done at Jogighopa

Road transportation of reactor
View of Barge showing Loading & Ro Ro Arrangement
View of Barge showing Loading & Ro Ro Arrangement
Learning from Subansiri and BRPL Projects

- Waterways can be used effectively for transportation of ODC/Heavy Lift cargo using major navigable rivers. Following points need to be taken care of for more usage of water ways
  - The draught availability should be known in the channel for the Ro/Ro season
  - Draught Availability should be maintained by IWAI throughout the year
  - Probable Ro/Ro Jetty locations should be identified IWAI on major river routes considering the draught available and connectivity with highway
  - Permanent jetties can be developed at these sites
  - Single window information is necessary regarding navigability, draught availability and connectivity.
  - Linkage of other rivers to main rivers should be worked out.
Thank You

Please contact us at logistics@abcindia.com