



First Meeting of the Working Group on Dry Ports

Dry ports: Emerging developments trigger new initiatives

RAGHU DAYAL Asian Institute of Transport Development

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Growing trends in global trade: Potential of intermodal transport and challenges of harnessing it

- Global container traffic growth rates have been much higher than growth in real GDP.
- Container CAGR of 13.5% during 1970-2007 vis-à-vis world GDP CAGR of 3.2%.
- Over the period 2014-2019 container traffic is estimated to grow @ 7.9% p.a., moderating in the quinquennial 2020-2025 at about 6% p.a. (*price Waterhouse Coopers: Enhancement of Containerisation in Asia*)



Global container trade, 1990-2020 (TEUs and percentage change)

Source: UNCTAD-based on Drewry Shipping Consultants; Container Market Review and Forecast 2006/2007 and 2008/2009 and Clarckson Research Services Ltd; Container Intelligence, September 2009

- Container port handling worldwide estimated at 1b TEU by 2020, doubling the throughput of 506m TEU in 2008 (UNCTAD).
- The intra-Asia container traffic is estimated to rise to 57 m TEU in 2025, from 16 m TEU in 2007.
- Northeast Asia alone to account for more traffic than other sub-regions in Asia taken together.

Product profile changes

- The value of trade growing much faster than its weight.
- This compositional shift happening both across products (shift away from bulks) and within manufacturing products.
- There is supremacy of demand for precision and speed in anticipating customer needs down to the store level.
- Higher income countries import higher quality goods.
- Speed in delivery is itself an important characteristic of product quality.

Challenges of burgeoning volumes

- The intercontinental combined traffic study (ICOMOD) by UIC reports:
 - In 2009, 10.7m TEU transported between Asia and Europe
 - Total traffic potential between Asia and Europe would increase to 17.4m TEU in 2020, 22.7m TEU in 2030.
 - By 2030, a rail potential of 1m TEU projected (around 38 trains per day of 100 TEU each).
 - The shift potential is highest from western China
- There is considerable scope to improve on the transit time, including that involving cross border detention as well as overall cost, which would spur the shift to rail.

Ships getting bigger... logistics corridors remain smaller

- Freight distribution strategies become a vital factor of competitiveness.
 - Improvement in supply chains appears to customers an important area – for cost, quality and efficiency improvements.
 - Important efficiency ingredients include:
 - Overall reduction in dwell time at terminals
 - Time saving through streamlined customs and other mandatory and regulatory interventions (ease of Doing Business)
 - EDI
 - Single window suite of services.
 - All players in the game striving in tandem to minimize overall logistics cost as well as time in procedures and operations.
 - Different modes constantly look for scale and the benefits of scale in terms of unit cost.
 - There is a strong relationship between the size of the container ship and the cost per TEU of operating container ships.
- As container ships increase in size with a capacity of over 18,000 TEU and still going bigger, the global supply chains will cast a growing impact on gateway ports as much as inland terminals.
- Distances alone may not be the only factor for intermodal growth; concentrated large volumes, even when involving short hauls, may well be carried optimally by rail.
 - One striking example is of containers transported between Laem Chabang port and Lat Krabang ICD in Thailand, a distance of just 118 km.
- Increasing road traffic congestion in and around gateway ports in Australia and large conurbations such as Sydney and Melbourne now compel inland terminals to be moved to suburbs with the diversion of EXIM container traffic from road to rail, signifying that short haul rail movement of containers can be sustained, if volumes are large and regular. (*unescap*)

Relationship between container ship size and operating costs



Source: AT Kearney

Dry ports – hubs of prosperity

Ports without water	Dry ports, -ICDs, CFSs, logistics zones or parks, freight villages, distriparks, $et al$ – they all facilitate seamless, integrated transportation of goods, generally in a multimodal format.
Potential hubs of prosperity	A dry port drives inclusive growth; relieves spatial imbalances; promotes growth in hinterlands, extending developmental impulses, many a time part of an SEZ/EPZ. ICDs and CFSs in effect enable and encourage integration of ports, road and rail freight operations.
Container freight station	A CFS, generally an off-dock facility, close to the port, helps decongest the port, as its virtual extended arm. CFSs set up also inland-with road linkage to a regional rail-linked ICDs, facilitating fast formation/disaggregation of unit trains for/from a gateway.
Environment friendly	A network of dry ports as load centres also optimises intermodal transport with significant

ent friendly – A network of dry ports as load centres also optimises intermodal transport with significant environmental benefits and energy gains; long haul between a seaport and an ICD done by rail, first-mile from the consignor at origin and last-mile short haul to the consignee by road.





Dry ports – a key component in supply chain

- A number of dry port provide valuable space for a range of value adding logistics services, enabling some of them to turn into well developed logistics parks or become the nucleus for SEZs, for example.
- It is more than just a means for decongesting or depressurizing congested seaports.
- It has also become a pole of attraction for the clustering of industrial activities and triggers economic development of specific areas.
- Existing container yards could evolve into dry ports
- With the location of value added services as a first possible step towards further expansion into full import/export processing zones or special economic zones.
 - Not only to serve traffic to and from gateway ports, but for domestic intermodal transport.

Dry port development in the region: Salient aspects of an example

First infant steps :

- As early as in the 1960s, IR realised the potential and benefits of high value cargo multimodally transported door-to-door.
- To stem steady decline of LWL general goods traffic, IR introduced 4.5/5.0 t containers of its own design for domestic cargo.
- Nurtured container culture in country's trade and industry.

Birth of CONCOR- a seminal step

- Managing change in country's logistics architecture
- Building and operating infrastructure with linkages for accelerated inland penetration of containerised cargo
- Promoting containerisation of intra-country domestic general cargo, aggregating them for unit train operation
- Promoting institutional mechanisms for PPP conducive to sustainable growth of multimodal transportation.

Synergising public-private strengths

- Participation of operators and agencies in central and state (federal and provincial) domains as well as private sector.
- Outsourcing of road transport and material handling equipment provisioning, but within CONCOR's own overall responsibility, service package, and tariffs
- Active involvement of stakeholders-trade and industry, customs, ports, airports, shipping lines, airlines, railways, roads, customs brokers, transport operators.

Most of the CONCOR-owned CFSs and ICDs provided with rail/road linkages enable it to offer a complete service package - unlike what obtained in UK or Germany, for example, where Freightliner and Transfracht respectively operated intermodal services between ports and inland centres owned and operated by others.

Liability and facilitation

Trade facilitation the very raison 'd' etre of containerisation in India

- A composite contract between shipper and forwarder
- A through, unified liability regime
- Customs clearance at all ICDs/CFSs

Legal Framework

- Government enacted the Multimodal Transport of Goods Act (MTGA)
- Earlier, FEDAI evolved its own rules
- Liability cover for MTOs could be extended by TT (Through Transport) Club

Comprehensive suite of services

- A whole panoply of customs and other procedures and rules
- single window
- multimodal transit door-to-door
- IWB (inland way bill) indicative of simplified tariff system a composite charge for different services
- factory /warehouse stuffing/destuffing
- mini-bridging of import containers from port to port by rail
- bonded warehousing
- LCL containers allowed movement from one CFS to another for further consolidation
- Customs duty payment through banks and via e-banking
- EDI

Air cargo - an integral component of supply chain



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