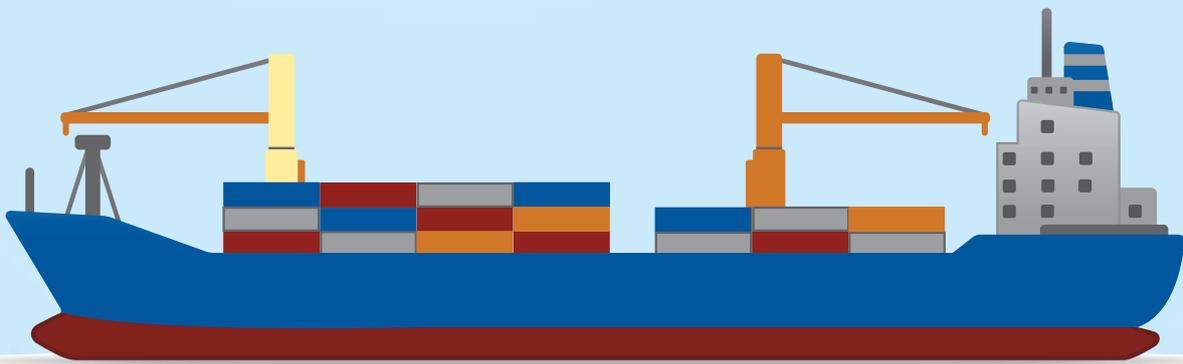




Confederation of Indian Industry  
Institute of Logistics



# COASTAL SHIPPING

An Environment Friendly Alternative

**National Conference**  
**17th April, 2013 | Mumbai**



# Foreword

**C**oastal Shipping – or short sea shipping as it is known in many parts of the world – is a subject that has been much talked about in India, but where little has been accomplished.

Carriage of cargo by coastal ship has several inherent advantages over road and even rail. It conserves energy, since ships are more fuel efficient than trucks. It is safer. Ships pollute the air a lot less than trucks. Coastal shipping also reduces congestion on land and can cater to huge parcel sizes.

Thus, what we call the “marginal external costs” of coastal shipping, the economic burden imposed on society by coastal shipping are far less than those of road transport.

Unlike road transport, however coastal shipping can only be a link in a multimodal transport chain. For coastal shipping to be viable, the multimodal chain as a whole including the land legs should be efficient and cost effective, a fact that is sometimes lost sight of.

I have had occasion to participate in several efforts to promote coastal shipping in India. However, inter-ministerial cooperation is a pre-requisite for success and, sadly, we have not been able bring this about.

The India story will continue for quite some time to come and our economy will grow at a fast clip. However, road capacity is likely to be in short supply in the foreseeable future. Coastal waterways could help fill the gap.

It is thus imperative that we divert freight from road to coastal waterways.

I am indeed glad that the CII is organizing an important conference on coastal shipping in Mumbai in April 2013. I am confident that this conference will see informed debate and discussion on the subject and will result in positive steps being taken to develop coastal shipping.

**S.N. Srikanth**  
***Sr. Partner, Hauer Associates***



---

---

# Contents

---

India's Congested Roads and Railways:	4
Modal Shift to Coastal Waterways:	5
Hurdles to Growth of Coastal Shipping:	6
The Way Forward:	7
User Concerns to be addressed for Coastal Shipping to Grow:	7

---

---

## Coastal Shipping

An Environment Friendly Alternative

17th April, 2013 | Mumbai

### India's Congested Roads and Railways:

The explosive economic growth witnessed in India since the turn of the century has led to congested roads and railways struggling to cope with ever increasing traffic.

India has over 4 million km of roads, the second largest network in the world. Some 65% of domestic freight is moved by road. Yet most of our roads are narrow and unsurfaced. National Highways, which are motorable with relatively greater ease account for a mere 1.7% of the network but carry as much as 40% of road freight.

The Indian railway network too is one of the world's largest, with 115,000 km of track over a route of 65,000 km and 7,500 stations. The railways carry 30% of domestic freight annually. However, the network is overburdened, the condition of bridges en route poor and signalling systems outdated, restricting average train speeds to around 30 kmph.

Ambitious projects for expansion and upgradation of road and rail networks are under way. The National Highways Development Project has just seen the completion of the Golden Quadrilateral. The North-South and East-West Corridors are under implementation and further development is planned.

The National Rail Vikas Yojana, a massive railway development plan aims at reducing capacity bottlenecks, providing rail based port connectivity, constructing mega bridges and developing multimodal transport corridors. Six dedicated freight corridors are on the anvil.

These road and rail projects are, however, unlikely to keep pace with and adequately meet the challenge of economic growth in the foreseeable future.



## Modal Shift to Coastal Waterways:

***Movement of freight by coastal ship and integration of coastal shipping into the transport network could supplement land based transport modes and relieve the burden on them.***

A north-south land movement, which could possibly be substituted by a multimodal chain that includes coastal shipping, is shown here. Such a multimodal chain would reduce the length of the road or rail legs, significantly reducing congestion on land. The coastal leg, apart from being more fuel efficient, can also carry larger parcel sizes.

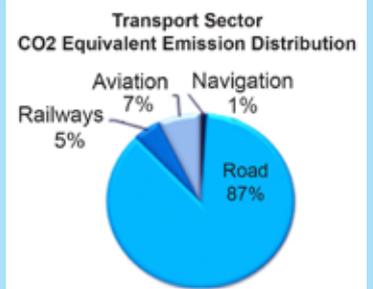
Land based transport modes, especially road transport typically carry huge “external costs”, hidden costs that burden not only road users but also society at large. These include accidents, air and noise pollution and climate change.



Over 1,40,000 lives were lost in road accidents in India in 2011. Road transport emissions cause respiratory illnesses such as asthma and bronchitis. A recent survey of 10 European cities has shown that exposure to vehicular pollution near busy roads is responsible for 14% of chronic childhood asthma cases. The negative impact of vehicular pollution is expected to be much greater in India. Further, road transport accounts for as much as 87% of the CO<sub>2</sub> emissions of the transport sector in India, making it a significant contributor to climate change.



Confederation of Indian Industry  
Institute of Logistics



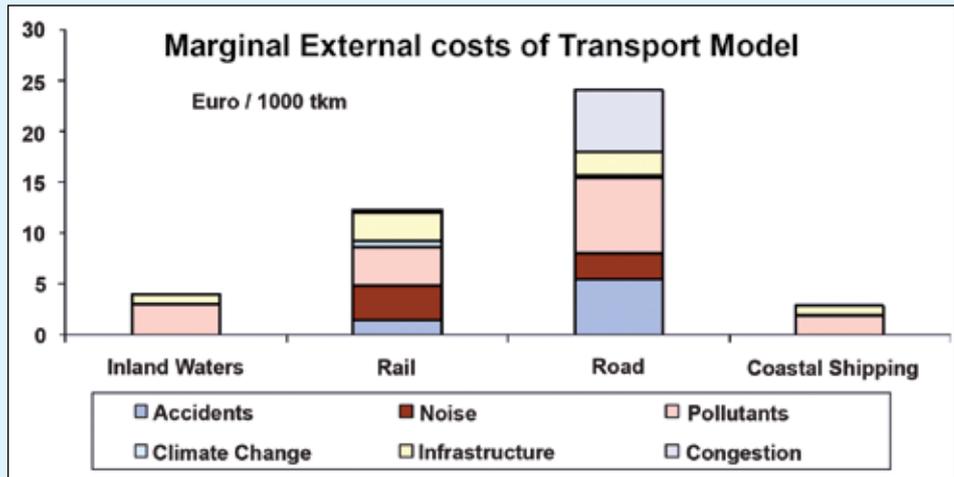
Source: India : Green House Gas emissions, 2007 (MoEF)

# Coastal Shipping

An Environment Friendly Alternative

17th April, 2013 | Mumbai

On the other hand, the external costs of coastal shipping are less than a fifth those of road transport, as may be seen from a European Union study whose results are given below:



Source: EU Inland Navigation, 2002

Coastal shipping is also more fuel efficient and can carry larger parcel sizes than road transport.

The case for effecting a modal shift of freight from road to coastal waterways is thus compelling.

## Hurdles to Growth of Coastal Shipping:

India has a coastline of around 7500 kms with nearly 200 ports, spread over 10 littoral states.



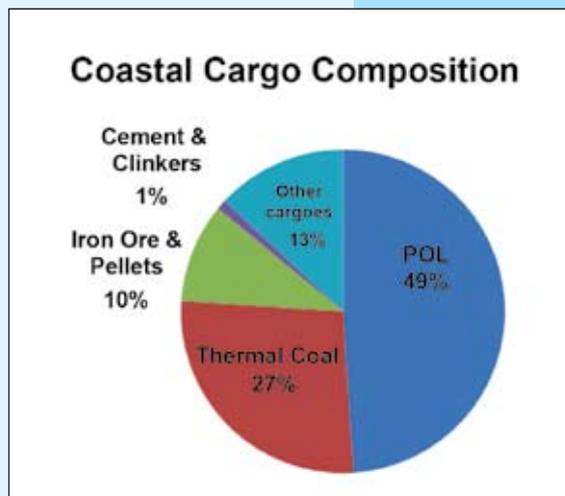
However, the long coastline has not given rise to a vigorous coastal shipping industry. Barely 8% of total domestic cargo (on a tonne-km basis) is moved by coastal shipping. Much of this movement is of bulk cargo such as POL and coal. Very little general cargo moves on the coast, though it is eminently possible to carry general or containerized cargo by coastal ship. The Indian coastal fleet as on December 31, 2012 comprised 118 cargo carrying vessels, with a total DWT of just 0.671 million and 33 passenger cum cargo vessels with a total DWT of 27,300.

The reasons for poor utilization of our coastal waterways are manifold. They include high costs at major ports, shallow draft at non-major ports, a multiplicity of non tariff barriers, inadequate road

and rail connectivity to ports, impediments to import and operation of coastal vessels and, in general, a lack of awareness of coastal shipping amongst cargo interests. Maritime cabotage, or the bar on foreign flag vessels carrying cargo on the Indian coast except by special dispensation is also claimed by many to be a reason.

Where awareness does exist, a land-sea transport chain is viewed as unreliable and avoidable, with the user having to deal with multiple agencies and with total transit times faring poorly when compared to road haulage.

To promote greater use of our coastal waterways, reliability and frequency of coastal sailings need to be improved, with door to door multimodal services and seamless integration of transport modes.



Total Tonnage: 152 million tonnes (2009-10)

Source: Ministry of Shipping, GoI

### User Concerns to be addressed for Coastal Shipping to Grow

- Frequency, reliability and consistency of services
- Availability of door to door multimodal services
- Acceptable multimodal transit time
- Seamless integration of transport modes
- Administrative simplicity

### The Way Forward:

A workable government policy for modal shift of freight to coastal waterways is required. The policy must be aimed at removing the hurdles that impede the growth of coastal shipping and must necessarily take into account the impact of external costs of transport modes. An India specific assessment of such external costs must be made and coastal shipping incentivized suitably or environmentally harmful transport modes penalized. The use of small non-major ports more extensively for coastal shipping needs to be encouraged.

The CII conference on coastal shipping will delve into these and related issues and create a credible roadmap for the development of coastal shipping.

Coastal Shipping - An Environment Friendly Alternative

## Thank you Supporters

*Gold Supporter*



*Bronze Supporters*



*Knowledge Partner*



**Confederation of Indian Industry  
Institute of Logistics**

(Old No. 21) New No. 33, Velacherry Main Road, Velacherry, Chennai – 600 042

Tel: +91 44 4292 8900 Direct: 91 44 4292 8904

Fax: 91 44 2255 1341