Development of Port & it's Socio Economic Effects on Hinterland

R.Sarvan & M.Mohammed Arif,

B.E / Marine,Noorul Islam University,

Kanyakum.ari district,Tamilnadu.

Mail id : seakingsavan@gmail.com

Contact no : 9003387747

ABSTRACT

The transportation sector is a strong factor in terms of economic and regional balanced development, as well as also having a great influence on national integration to the world economic market. India has a rich history of trade across seas. Ports constitute an important economic activity in coastal areas. The higher the throughput of goods and passengers year-on-year, the more infrastructure, provisions and associated services are required. These will bring varying degrees of benefits to the economy and to the country. Ports are also important for the support of economic activities in the hinterland since they act as a crucial connection between sea and land transport. As a supplier of jobs, ports do not only serve an economic but also a social function. In terms of load carried, seaway transportation is the cheapest and most effective transportation system compared to other systems. Industries require a safe and cheap means of exporting finished goods and importing raw materials. Hence the majority of industries in the world are located in the coastal belts, in the vicinity of major ports. These industries in turn, influence the lives of the employees and indirect benefactors. This report seeks to study the role played by ports in the development of a nation and also about the loss of lives of fishermen.

KEYWORDS

Ports; Economy; Economic Development; Export; Import; GDP; Container; Shipping; Coastal Industries; Indian ports; Developing ports; New ports; Impact & hazards; Fishermen lives

INTRODUCTION

A port becomes a wheel of economy if it runs efficiently. Presently the function of aport is not only limited but has expanded to a logistical platform. The efficiency of aport is important in international trade since a seaport is the nerve of foreign trade of acountry.A seaport is the compulsory transit point for the bulk of this trade, permitting theimport of goods, which the country does not itself produce in sufficient quantity andthe export of items which the country has a surplus or has a competitive edge toproduce contributing to the development of its economy. Besides, a port is also aplace for the provision of further services, which add value to

the products transportedand thus helps the increasing demand of trade.The globalization of world economy has brought about tremendous increase inexchanges of goods across the world. The world trade also accelerated as cost ofshipping has increased due to the introduction of economy of scale and thedevelopment of technology in shipping. Also the arrival of ports causes several hazards to the fishermen and their family who depend only the ocean and sea.

GROWING IMPORTANTS OF PORT IN INDIA

Growth in trade of a country is an important indicator of its overall growth. Trade of a country is an indicator of its economic condition.Internal trade of a country not only fulfills the requirements of its different regions but also promotes balanced regional growth in the country. Foreign trade also fulfills two objectives: providing a means for expenditure of surplus items of a country and making available items that are not internally produced. It leads to rapid economic progress of a country.Water transport has been playing an important role in Indian economy since time immemorial. It is an easy and cheap means of exports and imports of heavy items. It is in this context that the role of ports becomes all the more important. A port is a gate for entering into land from sea. In fact, a port is a place in a waterway where a ship can stop for loading and alighting goods. Ports are the nodal points for land and sea trades.Of the total sea-borne trade of India, more than 85 per centers shared by Mumbai, Kolkata, Cochin, Chennai and Visakhapatnam. The average ship-borne traffic in India is 35 million tonnes per annum and the total optimum handling capacity of the major ports is hardly more. Any increase in trade results in congestion at the ports. The causes for the concentration of India's ocean-borne trade in the above-mentioned five ports are both geographical and historical. Mumbai, Chennai and Kolkata have been centres of administration for a long time. With the increase in population of these cities, commercial and industrial activities also increased. During the latter half of the 19th century, the railway lines were constructed from these ports. Thus, from political and railway centres they developed into great ports.Although importance of ports in the trade of the country is continuously growing, existing port structure is inadequate. It is not able to avoid the delay in pre-trade activities as well as time taken by the ships in completing their journey. In labour and mechanical productivity, Indian ports are inferior to other Asian ports. India's coastline has few indentations and consequently the country has only a few major ports of trade.The southern side is deficient in harbours to accommodate the large vessels now employed in sea-borne trade. The violence of the monsoon keeps the western ports, excepting Mumbai, Kandla and Cochin, closed to traffic from May to August.Further, in the hinterland area, roads and railways have not expanded significantly due to presence of the Western Ghats. The eastern coast of the country is surf-bound and has many deltas of rivers. There is constant accumulation of sand and soil on the eastern coast, making navigation impossible. Ships have to wait for the tides to reach Kolkata and Haldia ports. In order to improve efficiency, productivity and quality of services as well as to bring in competitiveness in port services, the port sector has been thrown open to private sector participation. Various areas of port functioning, such as leasing out existing assets of the port, construction/creation of additional assets, leasing of equipment for port handling and leasing of

floating crafts from the private sector, pilotage and captive facilities for port-based industries, have been identified for participation/investment by the private sector. It is expected that private sector participation would result in reducing the gestation period for setting up new facilities, and also in bringing the latest technology and improved management techniques.The government permits joint-venture formations between major port and foreign port, between major port and minor port(s), as well as between major port and Company(ies). The measure is aimed at facilitating port trusts to (i) attract new technology; (ii) introduce better managerial process; (iii) expedite implementation of schemes; (iv) foster strategic alliance with minor ports for creation of optimal port infrastructure; and (v) enhance confidence of private sector in funding ports.Besides foreign trade, ports play an important role in internal trade. Inland water transport in India carries about 16 million tonnes of goods each year. Many rivers of the country are linked with major ports. These rivers carry important goods from ports to hinterlands to facilitate the transportation of these goods inside the country.

TRAFFIC HANDLED IN IDIAN PORTS

Name	Cargo Handled (FY2013-14)		Vessel Traffic (FY2012-13)		Container Traffic	
	million tonnes	**% Increase (over previous FY)**		**% Increase (over previous FY)**	**'000 TEUs**	**% Increase (over previous FY)**
Kandla	87.00	-7.06% ↓	2,734	0.74% ↑	29	-75.42% ↓
Paradip	68.00	20.25% ↑	1,279	-4.96% ↓	9	-30.77% ↓
JNPT	62.37	-3.32% ↓	2,588	-11.25% ↓	4,161	-2.30% ↓
Mumbai	59.19	1.98% ↑	1,949	-5.25% ↓	41	-14.58% ↓
Visakhapatnam	58.50	-0.91% ↓	2,066	-16.36% ↓	263	6.48% ↑
Chennai	51.11	-4.30% ↓	1,928	-5.63% ↓	1,468	-4.68% ↓
Kolkata	41.39	3.65% ↑	3,155	-0.91% ↓	563	-6.17% ↓

Name	Cargo Handled (FY2013-14)		Vessel Traffic (FY2012-13)		Container Traffic	
	million tonnes	**% Increase (over previous FY)**		**% Increase (over previous FY)**	**'000 TEUs**	**% Increase (over previous FY)**
Mangalore	39.37	6.29% ↑	1,096	-5.11% ↓	50	4.17% ↑
Tuticorin	28.64	1.35% ↑	1,292	-13.40% ↓	508	6.72% ↑
Ennore (corporate)	27.34	-52.85% ↓	475	23.38% ↑	--	--
Kochi	20.89	5.25% ↑	1,367	-1.09% ↓	351	4.78% ↑
Mormugao	11.74	-33.65% ↓	473	39.75% ↑	22	10.00% ↑
All Indian Ports	**555.50**	**1.78% ↑**	**20,402**	**-6.95% ↓**	**7,465**	**-3.10% ↓**

GROSS DOMESTIC PRODUCT (GDP)

The GDP defines as an aggregate measure of production equal to the sum of the gross values added of all resident and institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). An IMF publication states that "GDP measures the monetary value of final goods and services - that is, those that are bought by the final user - produced in a country in a given period of time (say a quarter or a year).Total GDP can also be broken down into the relative contribution of each industry or sector of the economy.

INDIAN GDP STATISTICS

ENVIRONMENTAL IMPACT ON PORT DEVELOPMENT

Checklists of adverse effects of port development for EIA have been compiled by severalorganizations including the World Bank, the Asian Development Bank and the InternationalAssociation of Ports and Harbors. Based on a review of these checklists, the relationshipbetween factors in port development.Major sources of these adverse effects can be categorized into three types: (a) locationof port; (b) construction; and (c) port operation, including ship traffic and discharges, cargohandling and storage, and land transport. Location of port connotes the existence of structures or landfills, and the position of the development site. Construction impliesconstruction activities in the sea and on land, dredging, disposal of dredged materials, andtransport of construction materials. Port operation includes ship-related factors such asvessel traffic, ship discharges and emissions, spills and leakage from ships; and cargo-relatedfactors such as cargo handling and storage, handling equipment, hazardous materials,waterfront industry discharges, and land transport to and from the port.Environmental facets to be considered in relation to port development are categorizedinto nine groups: (a) water quality; (b) coastal hydrology; (c) bottom contamination; (d) marineand coastal ecology; (e) air quality; (f) noise and vibration; (g) waste management; (h) visualquality; and (i) socio-cultural impacts.Water quality includes five elements: (a) general features such as temperature, salinity,pH, colour, transparency, oil and grease, and organic material concentration measured bytotal organic carbon (TOG), chemical oxygen demand (GOD) or biochemical oxygen demand(BOD); (b) turbidity measured by suspended solids (88); (c) eutrophication-related factorsmeasured by dissolved oxygen (DO), nitrogen (N) and phosphorus (P); (d) harmful or toxicsubstances including heavy metals such as mercury, cadmium, lead, and pesticides; and (e)sanitation-related factors determined by measuring the amount of coliform bacteria.Coastal hydrology cited here includes factors concerning currents, tidal flow, littoral drifts,beach erosion, water drainage, sediment deposition, groundwater flow, and other physicalphenomena in the

shore zone.by toxic or harmful substances, oils, oily mixtures and other hazardous materials.Contamination of bottom sediments are often measured by the size of sediment particles, pH,colour,smell, oil and grease, organic materials, and concentration of organic nitrogen,phosphorus, sulphide, and toxic substances such as heavy metals and pesticides includingtoxic components of antifouling paints.Marine and coastal ecology includes aquatic fauna and flora composed of a largenumber of species of bacteria, phytoplankton, zooplankton, benthonic organisms, coral,seaweed, shellfish, fish and other aquatic biota, terrestrial flora such as mangroves andwetlands.Loss of bottom habitat and fishery resources are also significant problems includedin this category.Air quality consists of two main elements: (a) soot and dust, measured by suspendedparticulate matter (SPM), which originate from dry bulk cargo handling and storage,construction work on land, and road traffic; and (b) concentration of sulfur dioxide (S02)'nitrogen dioxide (N02), carbon monoxide (CO), and hydrocarbons (HC) emitted from ships,

vehicles and various equipment used for port activities. Harmful substances and odour arealso elements to be considered in this category.Noise and vibration generated by road traffic, cargo operations, ship traffic and other portactivities also cause nuisances to local people.Waste management relates to all kinds of wastes, both liquid and solid, likely to bedisposed of in the port area. These wastes include dredged materials, garbage and oilymixtures discharged from ships, wastes from cargo operations, and all types of dischargesfrom municipal and waterfront industry activities.Visual quality refers to the aesthetic value of the landscape, the view of port facilities,the nuisance of bright lights used for night operations in a port, and other visual problems.Socio-cultural impacts includes all kinds of influence on the local community and people'slife style such as relocation of villages, industrialization, population growth nearby, and theformation of slums.

COASTAL INDUSTRIES AND CONSTRUCTION

Industrial development has altered, disturbed, and destroyed costal ecosystems, including sensitive habitats. Many important industrial centres are situated on estuaries and in the vicinity of urban areas and ports. Main industrial activities affecting coastal areas include metal smelting and processing, chemical, petrochemical (oil and gas storage and refining), paper mills, vehicle factories, ship building, power plants (coal, oil gas, nuclear energy), and food processing (including fish). Data and energy cables are numerous with similar effects to pipelines which are submerged in the seabed. This creates problems for other users (bottom trawl fisheries, marine aggregate extraction). Construction engineering activities very often cause permanent destruction of habitats or decreases in habitat size and their fragmentation, due to land claim, coastal protection, extraction of bottom material, dumping and disposal.

Habitat infilling, in particular of salt marshes and mangroves, has taken place for centuries almost everywhere in estuaries, intertidal bays and inlets throughout the world. The main impacts on marine ecosystems are disturbance and removal of benthic organisms, damage to sites as spawning areas for fish, alteration of seabed profiles, increase in instability of shallow

banks and an increase in erosion. Severe beach erosion is a problem shared by many countries. The threat from industry and tourism infrastructure is still acute even if local and regional management plans help by slowing down the rate of construction. The construction of artificial islands is now well developed in Japan and in the Southern North Sea, for instance in the Netherlands for the installation of a future airport. This is a highly political issue. Changes to the shoreline have been extensive in recent decades and threats from rising sea levels and sinking landmasses have required new strategies to be developed. For example, water storage schemes and managed retreat schemes along coastlines have been proposed and enacted as soft-engineering works as environmentally friendly and sustainable methods of dealing with long-term problems.

ISSUE IN MY NATIVE

When we arrive at the villages that now stand on the proposed site of the central government's Enayam Port project in Kanyakumari, and are mistaken for government officials, the hostility from the villagers is easily evident. Anger and frustration are writ large on the faces of fishermen and their family members as they look at a future bereft of land and livelihood when the project comes into being. 20,000 families who live in eight villages could be affected adversely by the project.The Enayam port will be built at an estimated cost of Rs 21,000 crore and emerge as a southern gateway of transshipment in the country. It will mainly cover the area from Kurumpanai to Thengapattinam, 12 km apart. The project also consists of a railway line and four-lane roadway to increase connectivity. The four-lane road will run from Nattalam to Enayam.The port is being touted as a way for Tamil Nadu to develop as a major destination for international cargo movement. At the moment, large vessels dock at large facilities in Colombo and Singapore, from where cargo is then sent to smaller ports by feeder vessels. To counter this and create a major gateway into the country from the south this project has been initiated. However, the villagers say that the Enayam project will mean the destruction of homes and religious places, loss of agricultural land and waters for fishing, and drastic changes to the local coastal landscape. Homes and religious places to goIn Chemmuthal village in Kanyakumari, the four-lane road will run through not only houses in that area but also religious places like temples and churches, agricultural lands and ponds which provide water to agricultural lands."There are about 180 houses in this village and everyone has about 5 to 10 cents of land. If that goes away, what will we do? How do you expect me to rebuild a house at this age even if the government provides some compensation," said Velayuddin Pillai, a 68-year-old retired government employee?"Sridharmasastha Krishnan temple, Iskayammal temple, the church in Pullani and the Devi temple all will be destroyed due to this project," said 33-year-old Padma Prasad, a resident who is working in the Defence sector.Earlier, the port was proposed to be built in Colachel, 10 km away from Enayam. Three feasibility reports were published in 1998, 2000 and 2010 for a commercial port at Colachel, but later Enayam was finalized as the location. Velayudin said, "Colachel is the best place to build the port as it is a natural harbour. There had been various

feasibility reports also regarding that. But we do not know the reason behind why the project was suddenly shifted from Colachel to Enayam."

LIVLIHOODS AT STAKE

The central government has already initiated the first steps towards building the four-lane roadway by marking off the area using stones and numbers in these areas. For the people of Chemmuthal village, the concern is not only about houses, but also a pond called Thodakulam which has been providing water to their agricultural lands for years, and without which working on their lands will become impossible.While the road is set to put agrarian livelihoods in jeopardy, the fishing villages in the area will be most adversely affected by the port itself.

The feasibility report of the project states that the project will be a three-phase project. The first phase of the Enayam port project begins from Melmidalam and will cover about 4 km. The first phase is proposed to begin by 2018.Helen Nagar, a fishermen village, consists of more than 314 fishermen families. "We have not got any official information regarding the project. A few people came and put stones when we asked for official permission they showed us a fake document which had the signature of Thiruvananthapuram collector," said Chrispin Bonifus, a Catholic priest, whose church maintains a fishermen grievances Cell. More than two lakh people will be affected by this project, he said.On February 29, 2016, there was a protest at Enayam in which more than 40,000 people participated.The Enayam village, which is on the seashore has more than 1468 fishermen families residing in it. We earn our livelihood through fishing. We do not know anything else other than fishing. What will we do if the port comes up here?" asked 62-year-old Paravel, a fisherman.Pointing at a rock in the middle of the sea, Paravel said, "Most of the fish are near that rock and if the port comes, ships will keep coming and the fish will not be found there after that."The fishermen claim that after the port is set-up in this area, it will be made a No-fishing zone. "All our boats and everything will be taken away. We cannot even be here. What work will they give us?" asked 62-year-old Thasan, another fisherman."The government claims that this port will create job opportunities for the locals in the area but what will these fishermen do? They have been doing this for generations," said Godfree, priest of a Catholic church in Enayam."I have been fishing from the age of 18, this is how I earn my living. Even my grandfather was a fisherman. If they let us continue our fishing in this place, we do not have any issues with the project," said Lenadimay, a 74-year-old fisherman.

CONCLUSION

Eventhough developing of ports is essential to development of our nation, Our government should also take steps to prevent sufferings of poor fishermen.

REFERENCES

1) TRIPATI & SILA, 2011.Ancient maritime trade of the eastern indian littoral.Current science,vol 100,no:7,10 april.

2) Business plan,2006. Business plan for Chennai port trust: final report ,December 2006,
3) The economic impact of the,2013. The economic impact of the uk maritime services sector: Ports –A report for maritime UK (including regional breakdown)February 2013
4) S sundar, port restructuring of india,
5) The port,2015. The port development plan to 2025, hamburg port authority,
6) “The Hindu” newspaper ,
7) Tamil newspapers and Magazines.