



## **A COMPARATIVE STUDY ON SAGARMALA PROJECT WITH LONDON GATWAY PROJECT AND MAASVLAKTE**

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### **Abstract:**

Sagarmala Programme is an initiative of Government of India to enhance the performance of logistics sector in India established in July 31st July 2015. The Sagarmala Programme was originally mooted by the National Democratic Alliance (India) Government under Atal Bihari Vajpayee in 2003. DP World London Gateway is a port within the wider Port of London, United Kingdom. Opened in November 2013, the site is a fully integrated logistics facility, comprising a semi-automated, deep-sea container terminal on the same site as the UK's largest land bank for development of warehousing, distribution facilities and ancillary logistics services. The main objective of the study is to identify the role of Ports in the economic development of the country. The conclusion is that If the project is completed the infrastructure of all the ports that are connected will also be made advanced with the latest technology. The sea traffic will also raise to a decent level none of the vessel needs to go round srilanka but they can take a shorter route. So the government should take initiative to complete the Sagarmala project as early as possible.

**Key Words:** Sagarmala, NDC & London Gateway

### **Introduction:**

Whenever ancient civilisations engaged in maritime trade, they tended to develop sea ports. One of the world's oldest known artificial harbours is at Wadi al-Jarf on the Red Sea. Along with the finding of harbour structures, ancient anchors have also been found. Other ancient ports include Guangzhou during Qin Dynasty China and Canopus, the principal Egyptian port for Greek trade before the foundation of Alexandria. In ancient Greece, Athens' port of Piraeus was the base for the Athenian fleet which played a crucial role in the Battle of Salamis against the Persians in 480 BCE. In ancient India from 3700 BCE, Lothal was a prominent city of the Indus valley civilisation, located in the BAL region of the modern state of Gujarat. Ostia Antica was the port of ancient Rome with Portus established by Claudius and enlarged by Trajan to supplement the nearby port of Ostia. In Japan, during the Edo period, the island of Dejima was the only port open for trade with Europe and received only a single Dutch ship per year, whereas Osaka was the largest domestic port and the main trade hub for rice. Nowadays, many of these ancient sites no longer exist or function as modern ports. Even in more recent times, ports sometimes fall out of use. Rye, East Sussex, was an important English port in the middle Ages, but the coastline changed and it is now 2 miles (3.2 km) from the sea, while the ports of Raven spurn and Dunwich have been lost to coastal erosion.

### **Modern Ports:**

Whereas early ports tended to be just simple harbours, modern ports tend to be multimodal distribution hubs, with transport links using sea, river, canal, road, and rail and air routes. Successful ports are located to optimize access to an active hinterland, such as the London Gateway. Ideally, a port will grant easy navigation to ships, and will give shelter from wind and waves. Ports are often on estuaries, where the water may be shallow and may need regular dredging. Deep water ports such as Milford Haven are less common, but can handle larger ships with a greater draft, such as super tankers, Post-Panamax vessels and large container ships. Other businesses such as regional distribution centres, warehouses and freight-forwarders, canneries and other processing facilities find it advantageous to be located within a port or nearby. Modern ports will have specialised cargo-handling equipment, such as gantry cranes, reach stackers and forklift trucks.

Ports usually have specialised functions: some tend to cater mainly for passenger ferries and cruise ships; some specialise in container traffic or general cargo; and some ports play an important military role for their nation's navy. Some third world countries and small islands such as Ascension and St Helena still have limited port facilities, so that ships must anchor off while their cargo and passengers are taken ashore by barge or launch (respectively). In modern times, ports survive or decline, depending on current economic trends. In the UK, both the ports of Liverpool and Southampton were once significant in the transatlantic passenger liner business. Once airliner traffic decimated that trade, both ports diversified to container cargo and cruise ships. Up until the 1950s the Port of London was a major international port on the River Thames, but changes in

shipping and the use of containers and larger ships, have led to its decline. Thames port, a small semi-automated container port (with links to the Port of Felixstowe, the UK's largest container port) thrived for some years, but has been hit hard by competition from the emergent London Gateway port and logistics hub.

In mainland Europe, it is normal for ports to be publicly owned, so that, for instance, the ports of Rotterdam and Amsterdam are owned partly by the state and partly by the cities themselves. By contrast, in the UK all ports are in private hands, such as Peel Ports who own the Port of Liverpool, John Lennon Airport and the Manchester Ship Canal. Even though modern ships tend to have bow-thrusters and stern-thrusters, many port authorities still require vessels to use pilots and tugboats for manoeuvring large ships in tight quarters. For instance, ships approaching the Belgian port of Antwerp, an inland port on the River Scheldt, are obliged to use Dutch pilots when navigating on that part of the estuary that belongs to the Netherlands.

#### **Objectives of the Study:**

- ✓ To identify the role of Ports in the economic development of the country.
- ✓ To show the relationship between the expansion in export and import of a country and the development of major ports.
- ✓ To associate the Infrastructural changes in the port before and after the development.
- ✓ Comparison of Sagarmala project with London gateway project and Maasvlakte.

#### **Scope of the Study:**

The scope of the study is basically to understand the comparison between the developed port projects with Sagarmala projects. Scope in this section is very broad to analyse as information is quite available. The port sites had helped me a lot to gather the information.

#### **Role of Ports in the Economic Development of the Country:**

Ports constitute an important economic activity in coastal areas. ... 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

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 passenger's 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.

#### **Relationship between the Expansion in Export and Import of a Country and the Development of Major Port:**

The current momentum built over the last two years of creative thinking and policy making since the new government took reins of the country is unprecedented and remarkable in the annals of maritime sector. The Sagarmala initiative in port sector is very much similar to the golden quadrilateral initiative in the highway sector started 15 years back which has matured into a massive programme of highway expansion and development. The Sagarmala concept and strategy contain a blue print for rapid development of existing major ports with modernization and expansion projects, inland and coastal water transport and new ports which is integrated with other initiatives of the government such as port led development, coastal cluster development and smart cities. It is in this context that the Ministry of Shipping's declaration of three or four new major ports on Landlord Model is a very welcome development.

These new major ports are Vadhavan in Maharashtra, Enayam in Tamilnadu and Sagar in West Bengal. A port site in Andhra Pradesh is to be finalized. All these ports are to be joint ventures between the Central and State Governments and will be developed by a Special Purpose Vehicle (SPV) on Landlord Model. The Landlord Model of development of these ports would make these new ports very attractive for investment by the private sector since the primary port infrastructure such as breakwater and land acquisition (wherever necessary), capital dredging, navigational aids, rail and road linkage, power and water to the new port will be provided by the SPV which will drastically reduce development and business risks to the private sector. Thus, the port operators will be invited to bid for development and operation of the cargo handling terminals and their investment will be limited to terminals and equipment. The Landlord Model adopted by the Ministry of Shipping has a very balanced division of risks between public and private sectors and thus most likely to succeed in development and operation of the new ports over next 3-4 years though the new ports will mature over a decade. The Ministry of Shipping has also established a novel institutional mechanism to ensure rail connectivity to the new ports namely Port Rail Corporation Ltd. which would finance and construct the rail linkage to the new ports while NHAI will execute the road connectivity.

### **Infrastructural Changes in the Port before and After the Development:**

#### **Sagarmala Project:**

Ranked a lowly 35th on the World Bank's Logistics Performance Index (LPI) in 2016, India is an inefficient place as far as logistics is concerned, with the extant system falling far short of international standards in terms of costs, efficiency, sustainability, and safety. Besides resulting in higher cost of doing business, this increases the prices of goods and services. The toll such inefficiency exacts on the economy can be gauged from the fact that India's annual logistics costs of R25 lakh crore constitute around 19% of its GDP. With the logistics system skewed towards roads (55%) and rail, pipelines, and waterways accounting for 32%, 7% and 6%, respectively, the cost of per tonne-km logistics is a high R2.3 for roads, R1.2-1.5 for rail, R0.2-0.3 for waterways and R0.1-0.15 for pipelines. This might change if the Centre's ambitious Sagarmala project succeeds in unlocking the full potential of the country's coastline and waterways. "The vision is to reduce logistics costs by up to R35,000-40,000 crore per annum for both domestic and export cargo," Road Transport and Highways and Shipping Minister Nitin Gadkari has said, adding the project would create 10 million jobs.

#### **London Gateway Project:**

London Gateway is the largest construction project in Europe, a £1.5 billion development on the north bank of the River Thames near Thurrock, Essex. It comprises a large new deep-water port, which will be able to handle the biggest container ships in the world, as well as one of Europe's largest logistics parks, providing access by road and railways to London and the rest of Great Britain. Infrastructure Gateway were commissioned by ISG Jackson to install 1.26km of main from the existing highway into the new Admin Building. Weather conditions on site are challenging as the location faces the open sea and at times the rain was horizontal. Ground conditions meant a step trench excavation was required. There was an ecological problem following the discovery of rare newts which delayed the job whilst barriers were constructed and work methods adapted to ensure the newts were not disturbed. The project was still completed on time and within budget, pressure testing and chlorinating of the new main was completed in liaison with Essex and Suffolk Water without a hitch and the new Admin Building is now complete and stands proudly on what was once a desolate brownfield site and is now a functional part of this amazing project.

#### **Maasvlakte:**

The Netherlands has the best port infrastructure in the world, according to the World Economic Forum in 'The Global Competitiveness Report 2016-2017'. It is the sixth consecutive time that our country has taken the top position. In comparison with last year, Singapore remains in second place, Hong Kong takes third place and Belgium is seventh. Important investments have taken place in the Maasvlakte infrastructure in recent years and in old port areas in Dordrecht and the Botlek the new Botlek bridge has been constructed; RDM Rotterdam has been renovated and modern buoy and dolphin configurations have been installed in the Calandkanaal. The Port of Rotterdam Authority invests 150 to 200 million euros per year in its port infrastructure. It is soon to start on the deepening of the Nieuwe Waterweg, the canal that connects the centre of Rotterdam with the North Sea. This will ensure that the Botlek is more easily accessible for the new generation of bulk carriers and tankers.

#### **Sagarmala Project:**

Sagarmala Programme is an initiative of Government of India to enhance the performance of logistics sector in India. The programme envisages unlocking the potential of waterways and coastline, to minimize infrastructural investments required to meet these targets. It entails 8.5 trillion (US\$120 billion or €100 billion) investment for setting up of new mega ports, modernization of India's existing ports, development of 14 Coastal Employment Zones (CEZs) and Coastal Employment Units, enhancement of port connectivity via road, rail, multi-modal logistics parks, pipelines & waterways and promote coastal community development, resulting in boosting merchandise exports by US\$110 billion, and generation of around 10,000,000 direct and indirect jobs. The Sagarmala Programme is the flagship programme of the Ministry of Shipping to promote port-led development in the country through harnessing India's 7,500 km long coastline, 14,500 km of potentially navigable waterways and strategic location on key international maritime trade routes. Sagarmala aims to modernize India's Ports so that port-led development can be augmented and coastlines can be developed to contribute in India's growth. It also aims for "transforming the existing Ports into modern world class Ports and integrate the development of the Ports, the Industrial clusters and hinterland and efficient evacuation systems through road, rail, inland and coastal waterways resulting in Ports becoming the drivers of economic activity in coastal areas.

#### **Background:**

The Sagarmala Programme was originally mooted by the National Democratic Alliance (India) Government under Atal Bihari Vajpayee in 2003 as the maritime equivalent to the Golden Quadrilateral, another project under his government in the roads and highways sector. The Programme aimed to leverage India's vast coastlines and industrial waterways to drive industrial development. On 25 March 2015 Cabinet gave approval for the Sagarmala Programme. The National Sagarmala Apex Committee (NSAC), composed of the Minister of Shipping, with Cabinet Ministers from stakeholder Ministries and Chief Ministers / Ministers in-

charge of ports of India's maritime states as members, provides policy direction and guidance for the initiative's implementation. The NSAC approved the overall National Perspective Plan (NPP) and regularly reviews the progress of implementation of these plans.

To assist in implementation of Sagarmala projects, the Sagarmala Development Company Limited (SDCL) was incorporated on 31 August 2016, after receiving Cabinet approval on 20 July 2016, for providing funding support to project SPVs and projects in-line with Sagarmala objectives. Additionally, SDCL is also in process of preparation of Detailed Project Report (DPRs) and feasibility studies for specific projects that could provide avenues for future equity investment by the company. The Sagarmala Development Company was incorporated after approval from the Indian Cabinet on 20 July 2016 with an initial authorized share capital of Rs 1000 Crore and subscribed share capital of Rs 90 Crore, to give a push to port-led development. The present subscribed share capital of SDCL is Rs. 215 Crore. The Indian Port Rail Corporation Limited (IPRCL) was incorporated on 10th July 2015 to undertake the port-rail connectivity projects under Sagarmala Programme. The Sagarmala National Perspective Plan was released by the Prime Minister on 14-April-2016 at the maiden Maritime India Summit 2016, with details on Project Plan and Implementation.

#### **Port-Linked Industrialization Under Sagarmala:**

Coastal Employment Zones (CEZ) is an important component of the Sagarmala Programme aimed at port-led industrial development of 14 business-friendly Coastal Economic Zones (CEZ) with the investment of ₹4,639,700 million (US\$65 billion or €57 billion), centred around ports in India spread across national coastline of 7,500 km, by using Make India indigenous manufacturing scheme. Sectors targeted for manufacturing units are maritime and inland waterways, water transport, coastal and cruise shipping, and solar and wind energy generation, auto, telecom and IT, etc. Each CEZ will cover economic region consisting of several coastal districts with strong linkage to the ports in that region. Each CEZs will also create synergy with industrial corridors passing through the region, such as Delhi–Mumbai Industrial Corridor Project, Mumbai-Bangalore economic corridor, Dedicated Freight Corridor, Chennai Bangalore Industrial Corridor, Visakhapatnam–Chennai Industrial Corridor and Amritsar Delhi Kolkata Industrial Corridor.

Each CEZ will have several Coastal Employment Units (CEU), and in turn each CEU will have several Port-Linked Industrial Clusters (PLIC). "Coastal Employment Units" (CEUs) serve as nodes within CEZ, each CEU industrial is an industrial estates with multiple industries. Each "Port-Linked Industrial Clusters" (PLIC) within CEU will have several manufacturing unit. Benefits include national GDP growth with ease of doing business by boosting export by US\$100 billion, 150,000 job creation by 2025, reduction in export cargo logistics cost and time, and increased global competitiveness of Indian exports.

#### **List of CEZs proposed under the Sagarmala Programme**

Total 14 CEZs are planned to be developed in phases across coastal India.

##### **Kachch CEZ**

Linked to Kandla Deen Dayal port and Mundra Port. Across Kachch district in Gujarat.

##### **Saurashtra CEZ**

Linked to Port Pipavav and Sikka port. Stretched across Junagarh, Amreli and Bhavnagar to Ahmedabad districts in Gujarat.

##### **Suryapur CEZ**

Linked to Daheji port and Hazira Port. Stretched from Bharuch, Surat and Navsari to Valsad districts in Gujarat

##### **North Konkan CEZ**

Linked to Jawaharlal Nehru Port lalall Mumbai Port Trust. Stretched from Nashik, Thane, Mumbai and Pune to Raigad districts in Maharashtra.

##### **South Konkan CEZ**

Linked to Dighii, Jaigarh and Mormugao port. Stretched from Ratnagiri, Sindhudurg and North Goa to South Goa districts in Maharashtra and Goa.

##### **Dakshini Kanara CEZ**

Linked to New Mangalore Port. Stretched from Udupi, Dakshina Kannada and Krodagu to Mysore districts in Karnataka.

##### **Malabar CEZ**

Linked to Cochin Port. Stretched from Ernakulum, Alappuzha and Kollam to Thiruvananthapuram districts in Kerala.

##### **Mannar CEZ**

Linked to VOCPT port. Stretched from Kanyakumari and Tirunelveli to Thoothukudi (Tuticorin) districts in Tamilnadu. Poompuhar CEZ Linked to Cuddalore port. Stretched from Cuddalore, Perambalur, Ariyalur, Tiruchirappalli, Thanjavur and Thiruvarur to Nagapat tinam districts in Tamil Nadu.

##### **VCIC South CEZ**

Linked to Chennai Port, Kamarajar Port and Kattupalli Shipyard. Stretched from Thiruvallur and Chennai to Kanchipuram districts in Tamil Nadu.

**VCIC Central CEZ**

Linked to Krishnapatnam Port. Stretched from Chittoor to Nellore districts in Andhra Pradesh.

**VCIC North CEZ**

Linked to Visakhapatnam Port and Kakinada Port. Stretched from Guntur, Krishna, West Godavari, East Godavari, Visakhapatnam, and Vizianagaram to Sirkakulam districts in Andhra Pradesh.

**Kalinga CEZ**

Linked to Paradip Port and Dhamara Port. Stretched from Puri, Jagatsinghapur, Cuttack, Kendrapara, and Jajapur to Bhadrakii districts in Odisha.

**Gaud CEZ**

Linked to Port of Kolkata and Haldia Port. Stretched from Purbai Medinipur to South 24 Parganas districts in West Bengal.

**Conclusion:**

As mentioned above once a port development project is completed there would be a major development in the Export and import in the county and it leads to the employment of at least 500 able candidates which can eradicate .1 percent of unemployment. If the project is completed the infrastructure of all the ports that are connected will also be made advanced with the latest technology. The sea traffic will also raise to a decent level none of the vessel needs to go round srilanka but they can take a shorter route. So the government should take initiative to complete the Sagarmala project as early as possible.

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