

# Port Policy for Emerging Economies: Lessons from Global Best Practices

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## **I. ABSTRACT**

Ports are a connecting link between the domestic market and the world market. They serve economic, social and environmental benefits. Even if one looks back at history, India has used ports as a medium to facilitate trade. The coastal areas of India whose location makes it viable for ports to be set up, have been a busy center for trade and commerce. The Planning, operation and management of ports becomes an issue of public policy. Sea ports serve global maritime trade and are part of supply chains. Hence, it becomes an area of public interest and the Govt shoulders the responsibility of regulating and managing the ports. Sea transport is cheapest as compared to other transport systems when concerned only with load carrying. Industries need to ascertain that they can safely and efficiently deliver their finished products to world markets and import raw materials as well. Industries are often located near coastal belts. This paper aims to study port policy for emerging economies, specifically India.

## **II. Introduction**

Ports are a primary part of transportation and help in integration in the global economy. Maritime sector provides a variety of services. Transporting people and cargo remains a major one. But then there are other supporting services as well like warehousing, custom clearance, towing, cargo handling. Around 90% of the world's commodity trade is carried out using sea transport. With the world becoming more environmentally conscious, the sea transport system gains more attraction.

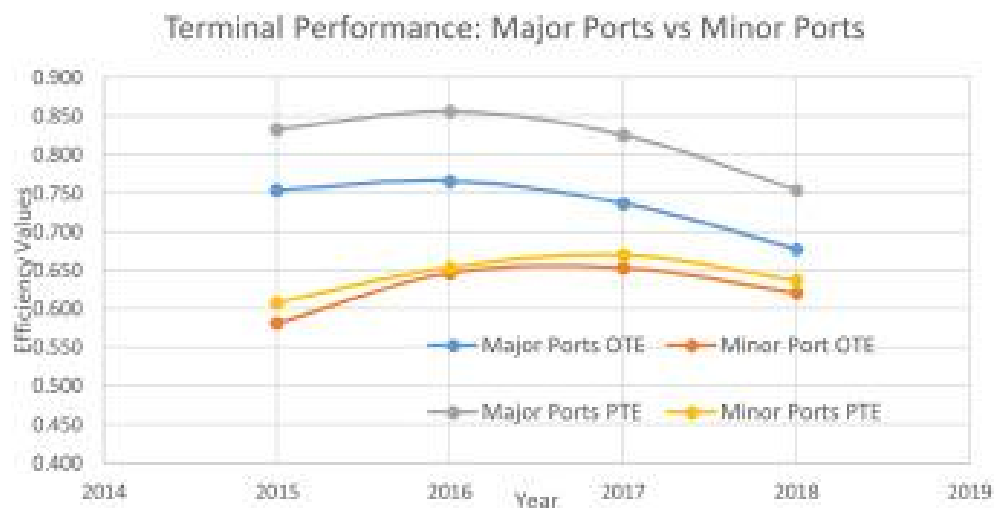
### **A. Importance of maritime trade to India**

India has an advantage when it comes to its maritime geography. With a 7,517 Km long coastline and nine coastal states that manage 1400 million tonnes of cargo every year. There are 12 major ports and 217 other ports. The major ports are covered in the union list. India secures its place as the 16th largest maritime trading country. On the eastern coast, India has Visakhapatnam, V.O. Chidambaranar, Syama Prasad Mukerjee, Chennai ports. On the western coast, the major ones include Cochin, Marmugao, New Mangalore, Deendayal, Mumbai ports. Around 95% of India's seaborne trade by volume is managed by these ports. Most cargo ships that sail through other continents have to pass through Indian territorial waters.

India's ports handled cargo of 819.227 million tonnes in FY24 which is an increase of 4.45%. Almost 50% of the total container volume was handled by Jawaharlal Nehru Port.



**Image 1: Ports in India**



**Image 2- Performance of major vs minor ports**

## **B. Port Security**

The Indian Ocean handles almost 80% of maritime oil trade. The port's strategic location can be an opportunity to capitalize on. The International Ship and Port Facility (ISPS) Code is vital for the safety of India's maritime sector. In a way, it safeguards India's trade relations with other nations. The ISPS code includes different levels of security. It clearly states the obligations of the government. India being a member of the International Maritime organization has agreed to implement ISPS code. Under the code, there are security standards for ships and ports. Port facilities need to be equipped with relevant information and port facilities must be assessed. Compliance with the Merchant Shipping act is must. Each shipping company, port and ship is required to have security officers. The officers are held responsible for evaluating and implementing security plans. Under Security Level 1, the government needs to ensure that security measures aimed at prevention of probable security threats are carried out. Security Level 2 includes adding an additional layer of protective security which is long term in nature. Security level 3 includes specific measures that are for a limited period of time. Mumbai port, Deendayal port and Jawaharlal Nehru Port follow Security Level 2.

If the ISPS code is not followed, then it will be tough for Indian flagged ships to get entry in ports of other nations. Also if the other nation is not following it, then it becomes difficult for their ships to enter Indian ports. So ISPS code is agreed upon for security purposes by many nations.

## **III. Current Policy Framework**

India has a renewed focus on maritime issues and that has become an important foreign policy objective. The nation is focusing on maritime research, cooperation, capacity building and advancing India's strategic interest.

### **SAGAR( Security and Growth for all in the region)**

It was released in 2015 and aims at strengthening security as well as economic relations with maritime neighbors. It targets maritime cooperation in the Indian region and focuses on capacity building, economic cooperation, maritime security and collective action. The end goal of this policy is to create an atmosphere of openness wherein regional concerns regarding maritime operations can be addressed and resolved in a peaceful way. Collective action is needed to safeguard against threats and even natural disasters in the Indian ocean region.

### **SAGARMALA**

Under Sagarmala, the existing ports are being modernized and new ones are being set up. This program comes under the shipping of Ministry of Ports, Shipping and water and focuses on reducing the EXIM logistic cost with lesser infrastructure investment. It covers 802 projects worth ₹ 5.53 lakh crore. Out of the figure 172 have already been completed. The programme aims to improve the following-ease of doing business, modern governance of ports, one time settlement scheme, shipbuilding financial assistance policy, biometric seafarers identity document. In July 2024, Govt made updates to the SBFAP. It has provided aid worth ₹337 cr to boost India's contention against shipyards of the other countries. Ever since the policy was put in place, 313 vessel orders worth ₹10,500 were secured.

## **Indo Pacific Ocean Initiative(IPOI)**

It is a voluntary arrangement that the government announced in Nov 2019 and Pacific. IPOI is centered on 7 sectors/pillars encompassing- maritime ecology, disaster risk reduction and management, science, technology and academia, cooperation, maritime resources, capacity building and resource sharing, maritime security, trade connectivity and maritime transparency.

## **Maritime India Vision 2027**

Redesigning Indian waterways is its main goal. The project's main goal is to strengthen the shipbuilding sector. It has established a development fund to carry out its objectives. ₹ 25000 crore has been allotted to this fund. The marine industry demands a significant amount of cash and the return on investment is sometimes delayed. The government devised a plan to address this issue by giving this industry the same level of assistance as before but at a lower cost that is spread over a longer period of time. The goal of eastern waterways grid projects is to improve capacity while focusing on regional connectivity. The government plans to establish a regulatory body that would oversee ports and operate throughout the nation. Congestion is an issue in places which are near ports and impacts efficiency.

## **Major port authorities bill, 2020**

This bill was introduced in the Lok Sabha in 2020 and focused on regulations and planning of major ports in India and suggests that the ports should have greater autonomy. It got passed on Feb 10, 2021. Major features include its application to major ports, setting up of board of major port authority. A selection committee will recommend the names for chairperson and deputy chairperson to the central govt. The board is given autonomy when it comes to using property for further developing the ports. It has to take sanction from the central govt before raising a loan.

## **IV. Global case studies**

Evidence from around the world confirms the idea that ports are an integral part of a country's economy. The growth and development of ports give a stimulus to trade activity. It has been observed that improving the port infrastructure has a positive impact on GDP. (Zial, Hans 2018) collected data for 91 countries with seaports and wanted to find out the economic impact of port infrastructure quality and logistics.

### **A. Case of Vietnam**

Vietnam is a country located in South Asia and has proximity to north and south shipping routes. Most of the ports in Vietnam are small and belong to the public sector. The policies of the govt, regional location, market conditions have a major impact on the performance of these ports. Seaports are important and busy centers. The country has a coastline of 3260 km and 68 sea ports. The annual capacity ranges from 470 to 500 million tonnes. Nevertheless, the majority of these are not functioning at an efficient scale. The government policy is inclined more towards state and private ownership of sea ports. The most common method of bringing out reforms in

ports has been the landlord model wherein private companies are allowed to carry out port operations under lease. The govt still has the ownership over the ports. The limitation of this model is that the private companies have limited autonomy. Vietnam decided to do things differently. It went for a corporatization model. Under this, Public ports or some of their parts are converted into a separate and independent legal entity governed by Private corporate law. The entities converted in this manner are called corporatized entities and are allowed to have their own independent board of directors. In a way these are given greater autonomy.

For ports in northern Vietnam like Quảng Ninh, Hai Phong, Danang, land is important for the port efficiency while for ports in the South, information technology is important for efficiency of ports. Even though studies have shown that corporatized ports perform way better than the state owned ports. However, in Vietnam only 11 ports have been corporatized. Another benefit of corporatization is that competition in the seaport increases. The state budget has to bear less burden. There are other models that can be analyzed for their suitability like operate transfers, build own operating transfer. The efficiency of dry ports in Vietnam has been a focus for the government, recognizing their role as a connection between maritime trade and inland distribution networks

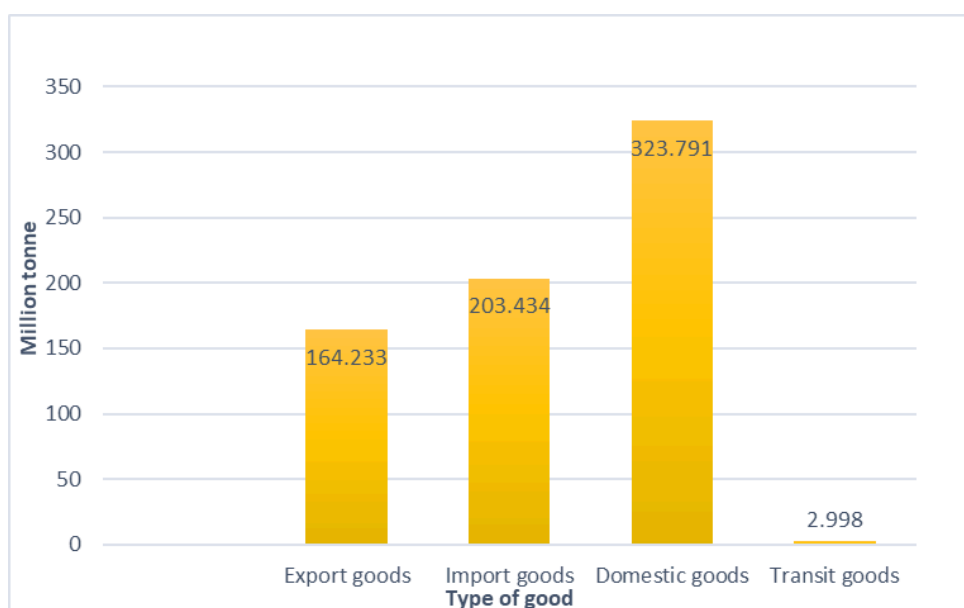


**Image 3- Ports in Vietnam**

**Table 1: Statistics of goods through the seaports as of November 2023.**

**Source: Vietnam Maritime Administration**

Export goods	164.233
Import goods	203.434
Domestic goods	323.791
Transit goods	2.998



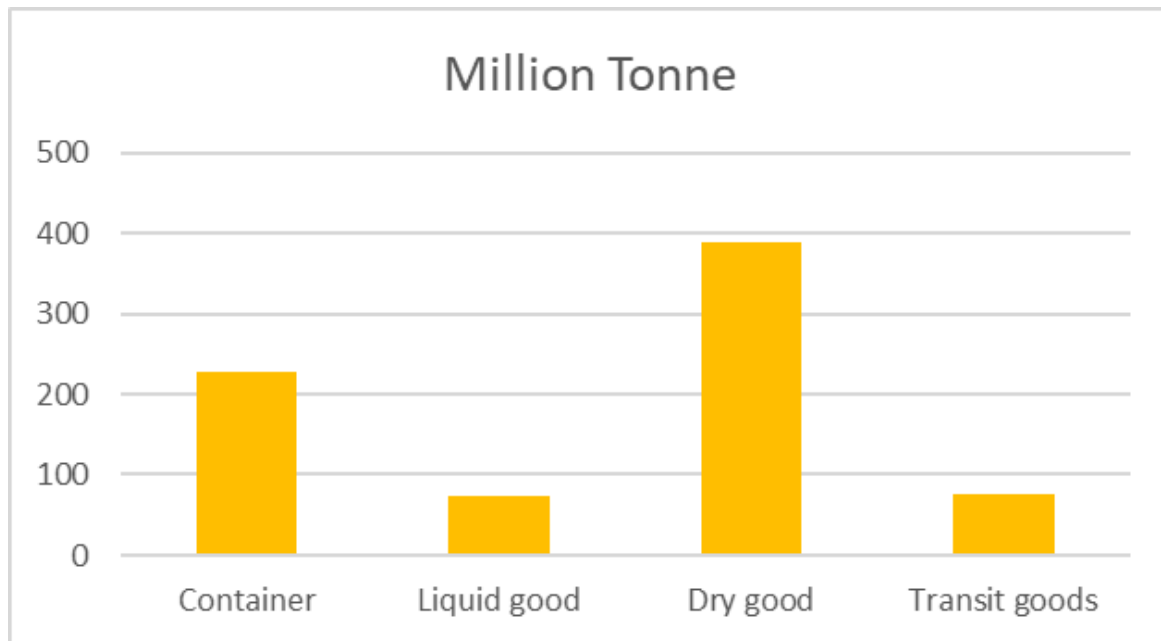
**Chart 1: Statistics of goods through the seaports as of November 2023.**

**Source: Vietnam Maritime Administration**

**Table 2: Statistics of goods through the seaports by category as of Nov 2023**

Type of good	Million Tonne
Container	228.132
Liquid good	74.471
Dry good	388.854
Transit goods	76.828

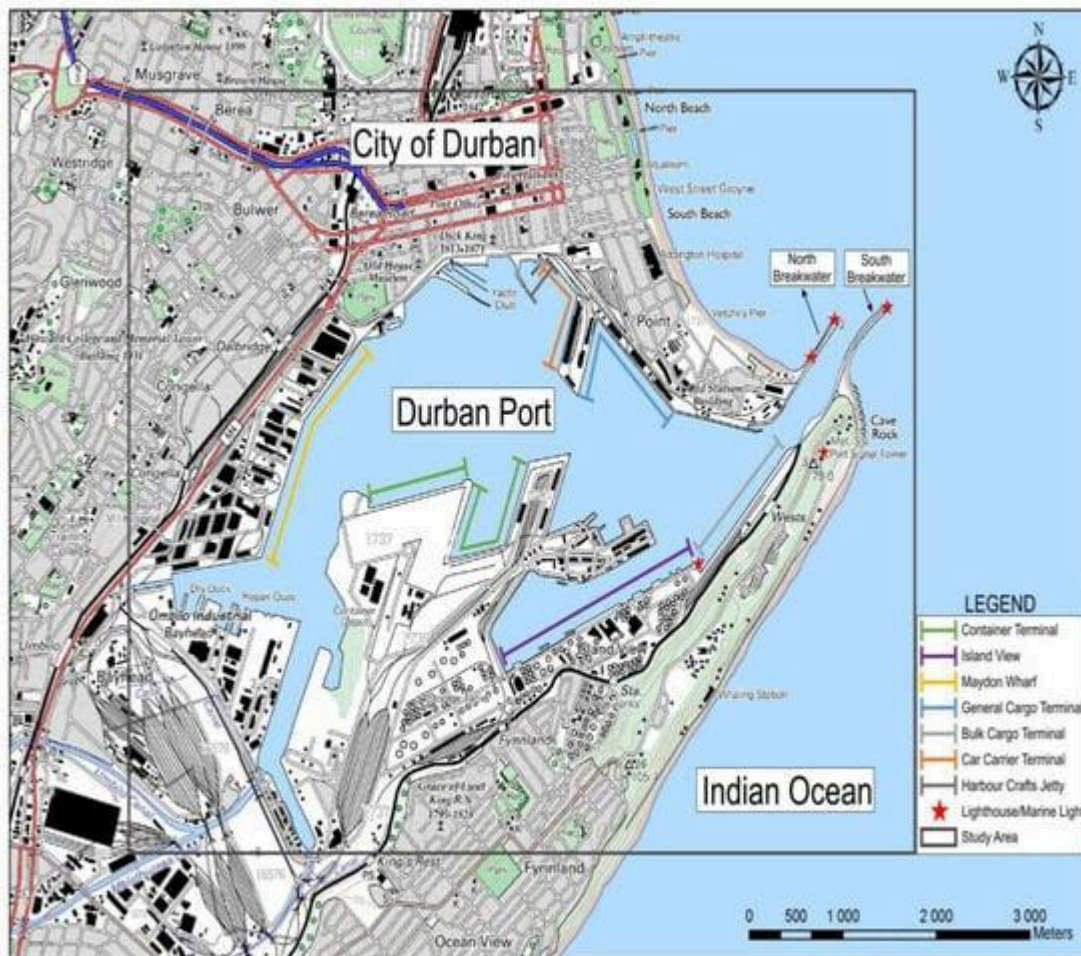




**Chart 2: Statistics of goods through the seaports by category as of Nov 2023**

## **B. Case of Durban**

Durban is the largest port and the main gateway port of Africa. It handles more than two thirds of container vessels coming to and going from South Africa. It has a strategic geographical location as it is central to many port and supply chain networks. Despite its major position, port performance is suboptimal. If we compare its performance with other African ports, then it is average. However, when compared with ports across the world it fell below. More than 50% of the import and export containers have to go through Durban metropolitan areas and are transported by truck which creates congestion. This is where development of dry ports becomes important. There is increased waiting time for ships because port gates are congested. This leads to an increase in the cost of exports and imports and negatively affects the competitiveness of the economy. Certain residential areas near Durban have turned into logistic centers because of delays and congestion. In this case port and city authorities should collaborate so that they are able to work on capacity building. Privatization could be seen as a solution but that alone won't work. Not every port in Africa is equipped with container cranes. They still rely on gear ships or mobile cranes. Another concern is the impact of the Durban port on the environment. Vehicles which are vital for the port to operate depend heavily on diesel engines and cause emissions. Another negative impact is on marine life. Ships account for 60% of emissions.



**Image 4- Ports in Durban**

## **V.Challenges**

### **1) China's growing influence**

China's growing regional influence is a matter of concern. It poses a threat to the region's stability. China's activities in the Indian Ocean and its growing influence have sent India and US worrying. It is clear that China has strong intentions of dominating the region and is aiming at blue water supremacy. China possesses the world's largest fleet of dual purpose civilian rescued vessels. China used its debt diplomacy policy and Sri Lanka had to lease Hambantota port to China for 99 years because it failed to repay the loan it had taken from China. Under its String of Pearls strategy, China is establishing its naval base along important and strategic lanes in the Indian Ocean. It is growing a network of military facilities. This can be a threat to India's maritime security.

### **2) Environmental Concerns**

Overexploitation of resources is another matter of concern. There is a provision called CRZ coastal regulation zone. It identifies certain land as ecologically sensitive. However, this provision does not apply to Sagarmala project and this means land which is of ecologically sensitive nature can be used to build infrastructure in case the need arises. Adding

to this, is the problem of increasing pollution because of the industrial cluster around the ports. Increasing coast erosion and dredging is another threat. Dredging helps to create deeper channels so that ships have a safe passage. However, its impact on the environment can be disturbing

### **3) Budget Constraints**

MEA's share in the total budget has been declining and Technical and Economic cooperation which is a key element of SAGAR initiative has received the lowest allocation in the last 5 years. Adding to this, India shells out less when it comes to aiding neighbor countries due to budget cuts.

### **4) State-Centre Conflict**

Another problem that comes when implementing SAGAR is that coastal state govts have an important say in managing maritime issues. The considerable autonomy of coastal states to manage maritime issues paired with political differences, if any, can lead to hindrance in executing SAGAR. This causes the approach towards maritime issues to be fragmented. The SAGAR project does have a vision but it lacks necessary funds and effective execution.

### **5) Resistance by Local Communities**

Sometimes there have been protests by fishermen community and environmental activists against certain port projects. Dredging and pollution by industries in port areas destroys the fishing grounds and causes a decline in fish population. Hence Fishermen whose livelihood depends on this gets affected. Dredging can also disturb the already existing port infrastructure. The development of coastal communities and protection of their interests has been overlooked.

### **6) Piracy, terrorism and trafficking**

Maritime borders have also been exploited by terrorists before. The 26/11 Mumbai attack showed the nation loopholes in its security. Piracy is another concern. Cross border transfer of illegal items and human trafficking is a challenge. The Sunderbans delta region and Palk strait have experienced such activity. Smuggling affects the government revenue, employment and social well-being. It has to be viewed from multiple perspectives- from the lens of security but also border management. It remains a major non traditional threat. IFC IOR report 2020, stated that there were a lot of incidents of contraband smuggling. Usually for this, a small vessel is used. In 2018, gold was seized at Surat port.

### **7) Natural Disasters**

India's coastline is prone to natural disasters. In past years, South Asia has experienced extreme weather. Instances of floods have become more prevalent. The region is becoming vulnerable to flooding because of rising sea levels

## VI. Recommendations

China's growing influence- To counter this challenge, some recommendations are-

**Enhance Surveillance and Intelligence:** Expand IMAC capabilities with artificial intelligence-driven predictive analytics to monitor Chinese activities.

**Strengthen Partnerships:** Deepen maritime collaborations with Quad countries and ASEAN nations for joint patrolling and intelligence sharing.

**Develop Infrastructure:** Expedite strategic port and naval base developments in the Andaman and Nicobar Islands to counter Chinese presence.

**Leverage Diplomacy:** Actively counter China's narratives in the IOR by offering alternative development assistance and maritime capacity-building programs.

### **Environment Concerns-**

**Revise CRZ Demarcations:** Use updated geospatial data to delineate no-development zones and streamline regulations for clarity.

**Strengthen Enforcement Mechanisms:** Establish monitoring and penalty systems.

**Promote Sustainable Development:** Introduce fiscal incentives for eco-friendly infrastructure, renewable energy projects, and community-driven tourism

**Stakeholder Inclusion:** Involve local communities and experts in rafting CRZ amendments to ensure ground realities are addressed.

**Budget constraints-** To tackle the issue of budget constraints, the following actions can be considered-

**Public-Private Partnerships (PPPs):** Engage private players for port modernization, surveillance system deployment, and coastal conservation projects.

**Prioritized Spending:** Allocate resources to high-impact areas such as maritime surveillance and strategic infrastructure development.

Global Funding: Leverage international climate funds and development loans for sustainable maritime initiatives.

Efficient Resource Utilization: Conduct audits and reallocate underutilized funds from overlapping schemes.

**Local Resistance:** To Overcome the challenge of local resistance-

Awareness Campaigns: Educate communities on the impact of trafficking and the role of surveillance initiatives in their safety.

Economic Incentives: Introduce livelihood programs such as skill development and sustainable fishing, eco-tourism, and artisanal crafts councils to integrate community voices in decision-making.

Capacity Building: Train local youth in surveillance and patrolling to enhance community ownership of maritime security efforts.

Although countries in the Indian Ocean Region have disaster management institutions and have a proper government mechanism, still one can't rule out international assistance. Climate Change is a global issue which requires cooperation from other nations as well. The govts of concerned nations have already come up with a solution. They have set up a regional system and entered into ASEAN agreement. In case of a disaster, the ASEAN responds and coordinates international assistance.

The government should consider setting up a fund focused on maritime development. This sector needs stable and sustained financing. Concern for the environment is important, there is a need to manage the waste in an effective way, so that the water as well as coastal communities are protected. Identifying other countries which can be useful to the cause and Sagarmala project should be done. The well-being of fishing communities must be safeguarded.

India has already put in place 3 level security which includes marine police, coast guard and Indian Navy. The information fusion center has been established to strengthen maritime security. ISRO's satellite area also helps with maritime surveillance, coastal radars and automatic identification systems have been put in place.

In order to counter China, India should focus on building a strong unit in the Indian Ocean region which comprises countries in this region, those which have a direct stake. This unit could work for the end goal of building a unit where each country has a say and stake so that no one nation dominates the IOR at the expense of other countries. This unit can have a moderately flexible structure. The Indian Ocean Rim Association is already in existence but there are certain backdraws. It was formed in 1997 and revolved around the general theme of cooperation, balance development, shared interests and liberalization.

However, now priorities have changed to a considerable extent. While shared interests remain integral, security against domination of a single country gets overlooked.

The way the chair and vice chair of Rim association gets selected is on a voluntary basis. Certain changes could be introduced in the existing structure. For instance, chair and vice chair positions could be held based on each member nation's performance on measurable, well- stated, achievable targets.

## **VII.Conclusion**

Developing a strong maritime policy is important as the contribution of ports to the economy is massive. The issue of maritime security is a complex one and it requires multiple perspectives. The Indian government has made various policies and launched projects aiming to strengthen and safeguard ports. As a fast growing economy, India is heavily reliant on its ports. Around 95% of India's sea global trade by volume is managed by the ports. The Indian Ocean handles almost 80% of maritime oil trade. National level authorities make active efforts to develop and modernize the ports. However, there are still challenges that are encountered.

Environmental concerns and interest of local coastal communities have to be considered for sustained growth. Since the Indian Ocean region is exposed to the effects of climate change, it becomes important to equip Indian ports to confront climate uncertainty. India's GDP gets affected by the ability of Indian companies to export goods globally.

If a country wishes to increase its global presence then it has to focus on building efficient ports. Government needs to reserve funds for development and upgradation of ports otherwise ports will become obsolete and ineffective. However, the funds required are large and the gestation period is also long. Despite the challenges, a well structured port policy focusing on multiple aspects of maritime trade and security for an emerging economy like India will bolster the Indian economy.

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