

Blue Economy

Mahabir Singh

With its geographic and geostrategic position in and critical dependence on the Indian Ocean, India has been leading the Blue Economy discourse at the highest level of the Government, with a greater focus on the Indian Ocean region. The Indian Ocean's Blue Economy has become a global economic corridor. It is the world's third-largest body of water, covering 68.5 million square km and rich in oil and mineral resources, and countries around the ocean's periphery are home to about one-third of humanity.

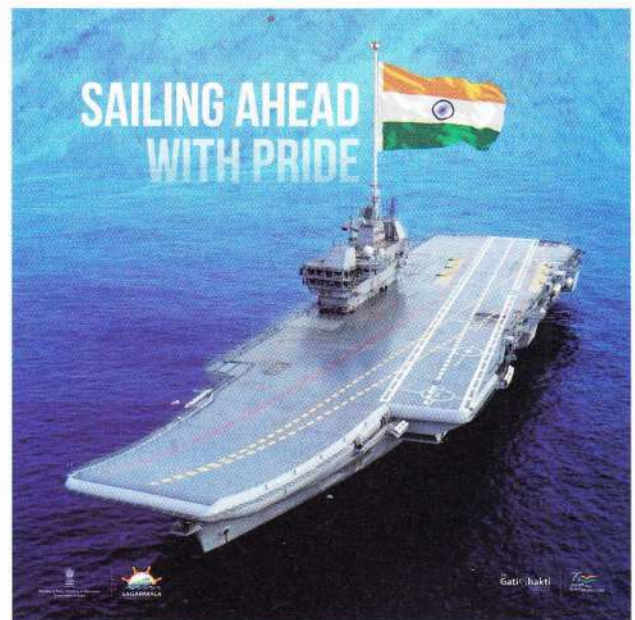
One-third of planet earth is land and the remaining two-thirds is water. Mankind has habitually exploited nature to serve its own ends. As the human population is rapidly increasing, the available land remains the same which has led to immense pressure on its resources. The population growth and resultant consumption of natural resources have exceeded the regenerative capacities of natural systems. The human pattern and practices of using land have irreparably diminished natural resources. The ocean is one of Earth's most valuable natural resources. Mankind exploits the ocean to meet his energy, food, recreational, military, and other needs. Oceans are used for transportation-both travel and shipping. Today around 80% of world trade is seaborne. As the volume of global trade increases, predictions are that global commercial vessel traffic is expected to double or treble in the next 20 years.

Among the world's oceanic divisions, the Indian Ocean is the third largest, covering an area of more than 70 million sq km that includes extensive Exclusive Economic Zones (EEZ) of different countries and large "High Seas". The economic and sustainable development issues in the Indian Ocean rim are particularly challenging since a majority of littorals are developing countries. These countries are home to one-third of the world's population that rely extensively on marine resources for livelihood and food security. The sheer size of this population subjects the Indian Ocean's resources to pressures from pollution, habitat degradation, and over-exploitation. As the population of the region is projected

to increase significantly in the coming decades its impact on food security and the economy from marine resources would become more substantial.

Maritime Governance and Blue Economy

With its geographic and geostrategic position in and critical dependence on the Indian Ocean, India has been leading the Blue Economy discourse at the highest level of the Government, with a greater focus on the Indian Ocean region. The essence of this approach was spelled out by Government for seeking "Security And Growth for All in



Mahabir Singh, Commandant is JD (Air Staff), Indian Coast Guard. Email: proicg@rediffmail.com



The sheer size of this population subjects the Indian Ocean's resources to pressures from pollution, habitat degradation, and over-exploitation. As the population of the region is projected to increase significantly in the coming decades, its impact on food security and the economy from marine resources would become more substantial.

the Region" (SAGAR). The Indian Ocean is vital to the economies, security, and livelihoods of its littoral states. India is focussing on overall maritime governance including economies based on marine resources assured, advancing the blue economy through sustainable management and utilisation of the ocean's resources, food security, and livelihoods for achieving Sustainable Development Goals (SDG). The current governance framework of marine resource management in the Indian Ocean explores the challenges in Blue Economy development to ensure sustainable development in the region. Maritime security is essential to ensure a holistic approach toward the governance, use, and maintenance of Oceans.

Concept of Blue Economy

The Blue Economy encompasses a wide range of economic activities pertaining to the sustainable development of resources and assets in the oceans, related rivers, water bodies, and coastal regions – in a

manner that ensures equity, inclusion, innovation, and modern technology. Subtly distinguishable from the "Ocean Economy" in terms of nuance and emphasis, the Blue Economy is a newer and more contemporary term, popular with Small Island Developing States (SIDS) as well as international organisations, media, experts, and governments in a growing number of countries. The Blue Economy is viewed as an integral element of Sustainable Development Goals.

Why focus on Blue Economy?

It would, as Indian Ocean Rim Association (IORA) points out, "contribute to food security, poverty alleviation, the mitigation of and resilience to the impacts of climate change, enhanced trade and investment, enhanced maritime connectivity, enhanced diversification, job creation, and socio-economic growth." From the business perspective, Blue Economy requires innovative and dynamic business models, forming business connections between India and



other relevant countries, especially those located in the Indian Ocean region. It may be underlined that the theatre of the development of the Blue Economy, from India's prism, will be the waters surrounding it, i.e. the Indian Ocean. Hence the countries situated in our immediate and extended neighbourhood would receive our focal attention.

India's population is estimated to rise to 1.7 billion in 2050. The Blue Economy may offer a partial path toward food security and millions of jobs to the unemployed.

Overview of India's Blue Economy

The Blue Economy of India is a subdivision of the national economy that includes the complete ocean resources system as well as human-made economic infrastructure in the country's legal jurisdiction marine,

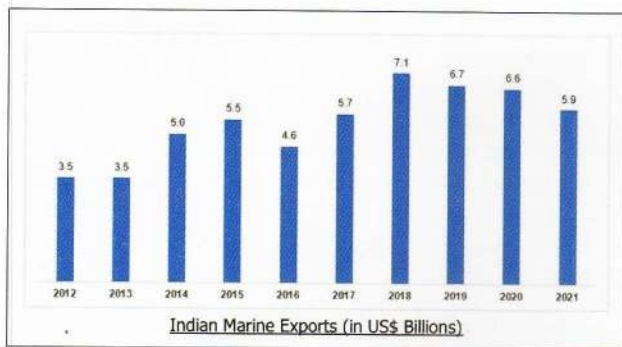
maritime, and onshore coastal zones. India's Blue Economy concept is multi-faceted and plays an important role in the country's economic growth because of its enormous maritime interests. It accounts for roughly 4% of the GDP and is estimated to increase once the mechanism is improved. The sector has stood strong despite the challenges caused by the Covid-19 pandemic and has recorded exports worth US\$ 7.2 billion between April 2021- February 2022.

Ocean resources, physical infrastructure for maritime economic development, marine amenities, and coastal management services are all part of the plan to ensure economic growth and sustainability, as well as national security. Fisheries and minerals are the two most viable components of the blue economy in India. The two mineral deposits of commercial significance to developers in the Indian Ocean are polymetallic nodules and polymetallic huge sulphides. Polymetallic nodules, which are golf-tennis-ball-sized nodules containing nickel, cobalt, iron, and manganese that grow over millions of years on the seafloor, are often discovered at 4-5 kms in water depth. In 1987, India was granted exclusive rights to explore polymetallic nodules in the Central Indian Ocean Basin. It has explored four million square miles and established two mine locations since then.

The coastal economy sustains over 4 million fishermen and coastal towns. India is the second largest fish-producing nation in the world and has a fleet of 2,50,000 fishing boats. India has a remarkable marine position with 7,517 kilometers of coastline. Nine of India's states have access to the coastline. India comprises 200 ports of which 12 are major ports that handled 541.76 million tones in FY 2021, the highest being Mormugao Port, located in Goa, which handled 62.6% of the total traffic. Shipbuilding and shipping are also important aspects of the blue economy in India. The modal share of coastal shipping has the potential to increase to 33% by 2035, up from roughly 6% presently. Most of the country's oil and gas are supplied by sea, leading to making the Indian Ocean region critical to India's economic growth. This reliance is expected to increase dramatically by 2025.

India's Blue Economy concept is multi-faceted and plays an important role in the country's economic growth because of its enormous maritime interests. India's Blue Economy accounts for roughly 4% of the GDP and is estimated to increase once the mechanism is improved.

The Indian Ocean's Blue Economy has become a global economic corridor. It is the world's third-largest body of water, covering 68.5 million square km and rich in oil and mineral resources, and countries around the ocean's periphery are home to about one-third of humanity. India has significant diplomatic interests in the Indo-Pacific, as well as international commitments in the region under the UNCLOS, such as Search and Rescue, seabed mining, and



counter-piracy.

There have been efforts to boost the fisheries sector of India in order to harness its full capacity.

The Blue Revolution: Integrated Development and Management of Fisheries

Centrally Sponsored Scheme (CSS) was established in 2015-16 with a five-year budget of Rs. 3,000 crores (US\$ 384.3 million). The 'Fisheries and Aquaculture Infrastructure Development Fund' (FIDF) was established in 2018-19 with a fund size of Rs. 7,522.48 crores (963.5 million) to provide concessional credit to state/UT governments, their entities, and the private sector to fill significant gaps in the fisheries infrastructure. The Government of India launched the Pradhan Mantri Matsya Sampada Yojana (PMMSY), in May 2020, with the highest investment of Rs. 20,050 crore (US\$ 2.5 billion) to bring about a Blue Revolution through sustainable and responsible development of the country's fisheries sector.

Maritime Security Strategy

India's maritime security strategy focuses on all aspects of the challenges including the ocean economy that are affecting the health and the future of oceans and countries. As it combines the traditional and non-traditional security paradigms of maritime security, it provides a cohesive definition that is apt to address prevalent challenges such as environmental degradation, ocean trade security, migration, climate change, energy security, drug trafficking, and piracy among other non-traditional challenges.

Climate change, environmental degradation, access to resources and expanding sea lanes, and the evolving international ocean regime highlight the need to focus on maritime security. With nations committed to fulfilling the Sustainable Development Goals (SDGs) towards Blue Economy, the role of oceans in this is significant. Addressing the strategic, environmental, and ocean

ecosystem challenges is one of the greatest challenges for India and the world.

Maritime security is an enabler of the Blue Economy, for example through safeguarding navigation routes, providing important oceanographic data to marine industries, and protecting rights over valuable marine resources and activities within claimed zones of maritime jurisdiction. The non-traditional security threats have effects on the military and also on strategy, policy, operations, training, capacity building, and environmental protection. The security issues have also seen a transition as maritime security moved from military and traditional issues to non-traditional security threats. Today, minerals are the significant drivers of economic development. India and China are the most active nations in the Indian Ocean region. China is already exploring minerals at the South-West Indian Ocean border. Therefore, there are huge opportunities but uncertainty still looms over mineral exploration with the possibility of large-scale pollution. There is a need to conduct further research to understand the impacts of deep-sea mining on the ocean ecosystem and ecology.

Unregulated and illegal fishing is another aspect that endangers the ocean ecology and while checks and balances have been established to address illegal, unreported, and unregulated fishing (IUU), the current international law regime still lacks rigid barriers and stringent mechanisms to address the rising problem.

Indian Coast Guard (ICG): A Maritime Blue Economy Enabler

With the Indian Coast Guard playing a far bigger role in averting major pollution incidents, anti-poaching, and Search & Rescue, its importance as an essential actor in non-traditional security is well established. The role of Indian Maritime Forces and the definition of maritime security have changed especially in the Indian context,

highlighting the myriad challenges and opportunities of the current maritime global order that would be faced by India in the coming decades while pursuing a Blue Economy.

As India is all set to achieve the goals of the Blue Economy, the role of ICG becomes very crucial. The duties of ICG as enshrined are in consonance with the Blue economy vision of the Government. Indian Coast Guard is one of the major maritime law enforcement agencies in the Indian Ocean Region. India focuses on the development of sectors viz. fisheries, shipping, port, and maritime logistics, marine coastal tourism and leisure,

The security issues have also seen a transition as maritime security moved from military and traditional issues to non-traditional security threats.

Today, minerals are the significant drivers of economic development. India and China are the most active nations in the Indian Ocean region. China is already exploring minerals at the South-West Indian Ocean border.

conventional minerals exploration and production, and marine construction activities. Other emerging sectors are renewable ocean energy including offshore wind, tidal, and wave energy, offshore extraction of oil and gas in deep-sea and other extreme locations, seabed mining for metals and minerals, marine aquaculture, marine biotechnology, ocean monitoring, control and surveillance, and education and research which can be harnessed to our advantage.

India has a 7517 km coastline, 1197 islands, and an Exclusive Economic Zone (EEZ) spanning 2.01 million sq km, which is expected to go up to almost 3 million sq km after the delimitation of the continental shelf. India is strategically located between two important choke points namely the Strait of Hormuz and the Strait of Malacca, through which most of the trade in commercial shipping moves in the Indian Ocean. These straits and rim of the Indian Ocean are laced with a large number of countries from four continents-Asia, Africa, Australia, and Antarctica. It is a large mass of water that has deep-lying resources and dense traffic. The traffic of hazardous and noxious substances for industrial and energy purposes is constantly increasing. Many of the nations in the rim have political problems and regional stability is therefore only transitory. Piracy and other transnational crimes are rampant and ongoing almost daily. Such crimes support militant activism and homemade insurgencies. Considering the future of the exploitation of ocean resources in the IOR, the Indian Coast Guard will have a major role to play.

Indian Coast Guard is the nation's premier maritime agency, the sea has taught generations of ICG men and

women to be vigilant and devoted to duty. The Lifesavers, as they are known to many Indians, never fail to live up to their motto and heritage. They provide a broad array of services to protect people and the maritime environment. The future will bring an increased demand for these and other services that can only be dimly perceived today. The Indian Coast Guard has been carrying out duties such as oil spill response, helping mariners in distress at sea, warning vessels during bad weather, offering assistance during scientific experiments, and augmenting the national defence resources. These duties coupled with other challenges would be the focus area of various enablers of the Blue Economy.

Conclusion

In pursuit of the SDGs of Blue Economy, revolutions in maritime transportation and information systems, growth of ports and shipping, mineral research and exploitation, emerging threats to the marine environment, and changing national security concerns will shape the course of the Nation. More than ever, India will call upon the Coast Guard to protect lives and serve the national interests on the high seas, along the Nation's maritime borders and coasts. Mindful of these responsibilities, the ICG has charted its course and embarked on an ambitious plan to renew assets and increase capabilities, by matching its high-performing people with modern equipment and technologies, the Indian Coast Guard will remain always ready to meet the challenges ahead. □

References

1. <http://www.ibef.org/blogs/importance-of-india-s-blue-economy>
2. <http://www.iora.int/en/priorities-focus-areas/blue-economy>

Sales Outlets of Publications Division

New Delhi	Soochna Bhawan, CGO Complex, Lodhi Road	110003	011-24365609 011-24365610
Navi Mumbai	701, B Wing, 7th Floor, Kendriya Sadan, Belapur	400614	022-27570686
Kolkata	08, Esplanade East	700069	033-22486696
Chennai	'A' Wing, Rajaji Bhawan, Basant Nagar	600090	044-24917673
Thiruvananthapuram	Press Road, Near Government Press	695001	0471-2330650
Hyderabad	204, II Floor CGO Towers, Kavadiguda, Secunderabad	500080	040-27535383
Bengaluru	I Floor, 'F' Wing, Kendriya Sadan, Koramangala	560034	080-25537244
Patna	Bihar State Co-operative Building, Ashoka Rajpath	800004	0612-2675823
Lucknow	Hall No 1, II Floor, Kendriya Bhawan, Sector-H, Aliganj	226024	0522-2325455
Ahmedabad	4-C, Neptune Tower, 4th Floor, Nehru Bridge Corner, Ashram Road	380009	079-26588669
Guwahati	Assam Khadi and Village Industries Board, Ground Floor, MRD Road, Chandmari	781003	0361-2668237