

Ocean based Blue Economy: An Insight into the SAGAR as the Last

Growth Frontier

Hamant Maini and Lipi Budhraj¹

An insight into the potential linkages between blue economy, economic growth, port development, international relations and security, and ocean resource conservation, highlighting the opportunities and challenges for India

I. Introduction:

Oceans cover three-quarters of the Earth's surface, contain 97% of the Earth's water, and represent 99% of the living area on the planet ^[1]. Oceans are claimed to be 'last frontiers' of growth and development, but the immense potential that the Oceans present remains to be tapped fully. However, this potential needs to be harnessed in a balanced manner, where the preservation and health of Oceans are given their due importance, along with adherence to the United Nation's Sustainable Development Goal #14 that states "Conserve and sustainably use the oceans, seas and marine resources for sustainable development ^[2]."

The Ocean-based Blue Economy is the next sunrise issue for development experts. Dr. Gunter Pauli introduced this concept in the book – "*The Blue Economy: 10 years, 100 innovations, 100 million jobs*". Blue Economy is based on the idea to use locally available resources and employ renewable inputs, for example, "ocean-as-a-resource" that addresses the problems of resource scarcity and enables sustainable development ^[3]. This marine-based economic development will reduce environmental risks and mitigate ecological challenges. As a result, the optimized and responsible resource utilization will enable to achieve balanced socio-economic development.

II. Economic and Trade Potential:

The Indian Ocean Region is abundant with resources, particularly in the sectors of fisheries, aquaculture, ocean energy, sea-bed mining and minerals, and provides

¹ Hamant Maini and Lipi Budhraj are Young Professionals associated with Office of CEO, NITI Aayog

tremendous economic opportunities to develop marine tourism and shipping activities. Among these resources, fisheries and minerals are the most commercially viable industries. Commercial and artisanal fisheries sustain the livelihoods of more than 38 million people worldwide.

In the Indian Ocean, fish production increased drastically from 861,000 tons in 1950 to 11.5 million tons in 2010. The United Nations Food and Agriculture Organization (FAO) report states that while other world oceans are nearing their fisheries limit, in certain areas, the Indian Ocean's resources have the potential to sustain increased production.

Polymetallic nodules and polymetallic massive sulphides are the two mineral resources of commercial interest to developers in the Indian Ocean. Typically found at four to five km in water depth, polymetallic nodules are golf-to-tennis ball-sized nodules containing nickel, cobalt, iron, and manganese that form over millions of years on the sediment of the seafloor. India had received exclusive rights for the exploration polymetallic nodules in 1987, in the Central Indian Ocean Basin. Since then, it has explored four million square miles and established two mine sites.

A strong impetus on Research and Development, and Innovation in the areas of Ocean Energy, Marine Biology and Biotechnology must be provided for the nation to achieve significant market shares in these sectors.

It is necessary for India to tap the enormous potential of the Ocean based Blue Economy, which will propel the nation into a higher growth trajectory. The development of Blue Economy can serve as a growth catalyst in realizing the vision to become a \$10 trillion economy by 2032. Additionally, the Indian Ocean Region is of strategic importance to India's economic growth as the most of the country's oil, and gas is imported through the sea. Further, this dependency is expected to rise by 2025 exponentially.

The Indian Ocean Region presents tremendous trade potential for the country. The countries in the Indian Ocean Rim Association (IORA) exhibited significant dynamism in the past few years as the trade in the region increased by over four times from US\$ 302 billion in 2003 to US\$ 1.2 trillion in 2012 ^[4].

The Sagarmala project, launched by the Ministry of Shipping, is the strategic initiative for port-led development through the extensive use of IT enabled services for modernisation of ports. It tackles the issue of underutilized ports by focussing on port modernization, efficient evacuation, and coastal economic development. The government has allocated over Rs. 3 lakh crore to fund 199 projects under the Sagarmala programme to be implemented in the next three years. Of these identified programmes, projects of more than Rs. 1 lakh crore are already under implementation ^[5]. Moreover, the Union Budget of 2017-18 has increased the allocation to the project from Rs. 406 crore (RE 2016-17) to Rs. 600 crore (BE 2017-18), giving further impetus to the port-led development.

Under the Make in India program of the Government, shipbuilding industry can benefit from a major thrust. This industry has a high multiplier effect on investment and can accelerate industrial growth along with its large number of associated industries. In December 2014, India had a fleet strength of just over 1,200 ships, which is expected to reach over 1,600 by 2025 ^[6]. A strong push in India's commercial shipbuilding and ship repair sectors, complementing the Sagarmala project of port development have the potential to drive economic transformation.

III. International Relations and Security:

The Indian Ocean has always enjoyed a place of prominence in global strategy. Many nations have established a presence in the region to ensure their strategic interests. India was very active in the UN Adhoc Committee that was set up on the Indian Ocean and supported the cause of keeping the Indian Ocean, a Zone of Peace during Cold War.

However, with the re-emergence of piracy issues and growing importance to secure the oceanic ecosystem, India has been pro-actively involved in cooperative arrangements with like-minded neighboring countries. The 'Trilateral Cooperative in Maritime Security between India, Sri Lanka, and Maldives' is one such example.

The *India Maritime Security Strategy* published by the Indian Navy articulates country's policy in the Indian Ocean region. It states that in the Indian Ocean region, India is committed to:

- (i) Ensuring a safe, secure and stable Indian Ocean Region;
- (ii) Deepening security cooperation, through increased surveillance and monitoring with regional partners;
- (iii) Forging a multilateral cooperative maritime security initiative in the Indian Ocean to combat terrorism and piracy;
- (iv) Deepening cultural linkages with the people in region; and
- (v) Building Indian Ocean Region as a frontier of sustainable economic development ^[7].

However, notwithstanding the above, other compelling issues demand a coordinated approach among stakeholders in the region in combating the plaguing issues of the rise in narco-terrorism and human trafficking. These need to be tackled by strengthening trans-oceanic partnerships and developing a synchronized strategy for a way forward.

IV. Way Forward for India

In this era of advanced technology, oceans will become new centers of economic activity. Oceans already account for significant trade and commerce in the fields of shipping, offshore oil and gas, fishing, undersea cables, and tourism. Besides these areas, there are other emerging industries such as aquaculture, marine biotechnology, ocean energy and sea-bed mining that have the potential to create jobs and spur worldwide economic growth.

The Indian Ocean region needs a sustainable and inclusive framework for international partnerships. Countries in the region need to not only coordinate and manage the growing security challenges in the region but also realize the substantial economic potential the Indian Ocean area presents. India has significantly upped its development efforts in Seychelles, Mauritius, Africa, and Sri Lanka. Such an approach earmarks a shift from the traditional focus on naval operations and anti-piracy efforts to that of environmental

protection, national security, infrastructure creation, industrial capacity building and marine development.

India's commitment to strengthen its cooperation with the regional partners and build a sustainable ocean economy aligns well with its domestic mega-modernisation projects that will enable the nation to harness the full potential of the Ocean based Blue Economy.

[1] "Ocean and Coastal Area Governance| UNDP." <http://www.undp.org/>. 11 Jul. 2016 <http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/focus_area>.

[2] "Conserve and sustainably use the oceans, seas and marine ..." <http://www.undp.org/>. 11 Jul. 2016 <<http://www.un.org/sustainabledevelopment/oceans/>>.

[3] "Blue Economy - IORA - Indian Ocean Rim Association." www.iora.net. 11 Jul. 2016 <<http://www.iora.net/blue-economy/blue-economy.aspx>>.

[4] "External Affairs Minister's address at International" <http://mea.gov.in>. 11 Jul. 2016 <<http://mea.gov.in/Speeches-Statements.htm?dtl/24994>>.

[5] "Budget Session 2017: Here's the full text of President Pranab Mukherjee's speech". 2 Feb. 2017 <<http://economictimes.indiatimes.com/news/politics-and-nation/budget-session-2017-heres-the-full-text-of-president-pranab-mukherjees-speech/printarticle/56888752.cms>>

[6] [7] "Ensuring Secure Seas: Indian Maritime Security Strategy" <http://indiannavy.nic.in/>. 11 Jul. 2016 <<http://www.spsmai.com/military/?id=3825&q=Ensuring-Secure-Seas:-Indian-Maritime-Security-Strategy>>.

As outlined by the World Bank, a blue economy would rest upon the sustainable use of ocean resources for economic growth, ocean ecosystem, health, improved livelihood and jobs. Opposed to conventional notions of ocean economic policy, the term "blue economy" covers numerous maritime activities such as exploitation of living and non-living marine resources (deep sea fishing, development of aquaculture, off shore fossil fuels etc.), generation of renewable energy (wind and tidal), societal needs such as mitigation of climate change, disaster management and desalination for coastal and island ha... Maini, H. and L. Budhraj, 2015. Ocean based Blue Economy: An Insight into the SAGAR as the Last Growth Frontier, NITI Aayog. MNRE, 2013. For development experts, ocean based "blue economy" is a contemporary idea that helps optimize and utilize ocean resources in a balanced manner for socio-economic development. It is based on the idea of the "ocean as a resource" wherein use of local resources are promoted enabling sustainable development and addressing issues of scarcity of resources (3). The countries in the IOR are not economically integrated and are at different levels of development, offering immense possibility for trade and co-operation. 3. Hamant Maini and Lipi Budhraj; 2017; Ocean Based Blue Economy- An insight into SAGAR as last growth frontier. Africa's blue economy: five nations poised for growth. Global Business > Africa. Dubbed as the "new frontier of African renaissance", the maritime industry has huge economic potential across the continent and five countries in particular are poised to benefit. September 10, 2019. Jon Axworthy. Madagascar. With a 5,500-kilometre coastline, Madagascar's potential to benefit from a blue economy is huge. These ocean economy estimates are primarily predicated on the growth of domestic shipping, as the country sits on one of the busiest trade routes in the world. However, from the approximately 13,000 trade cargo ships that visit South African ports every year to deliver imports and export local produce and minerals, only a handful are registered under the South African flag. Blue economy is a term in economics relating to the exploitation and preservation of the marine environment. Its scope of interpretation varies among organizations. According to the World Bank, the blue economy is the "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem.". European Commission defines it as "All economic activities related to oceans, seas and coasts. It covers a wide range of interlinked established and The blue economy, encompassing all economic activities relating to oceans and seas, directly employs over 4 million people in the EU and accounts for 1.3 % of EU GDP. The blue growth strategy, adopted by the Commission in 2012, is the current long-term policy framework for stimulating economic activities relating to oceans and seas. This paper looks into the EU policy framework and the different EU initiatives and actions taken in these areas, both by providing an overview of the cross-cutting 'key enablers' of the blue economy and by providing an analysis by blue economy sector (excluding however the sectors of coastal protection and maritime defence).