

BLUE ECONOMY: IMPACT OF CORONA PANDEMIC

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ABSTRACT : *Global ocean assets account for about 5 to 7 % of global GDP at over US\$24 trillion to be the seventh largest economy. Marine sector in India constitutes app. 4.1 % of India's economy and is a source of livelihood to over 250 million people. Blue economy has a huge potential and can play a crucial role in the economic development through income and employment generation. With a strategic geographical location in the Indian Ocean and exclusive economic zone (EEZ) of 1.5 million sq. km, India possesses huge marine resources and blue economy could be a pivot of development. Unfortunately oceans are perceived only as everyone's resource but no one's responsibility. Unregulated and unscientific exploitation has brought fragile marine ecosystem under tremendous pressure. A fundamental change is required to the way the world's marine economy is managed. The COVID-19 pandemic has steadily rippled through this economy affecting most of its sectors including Fisheries and Aquaculture, Renewable Ocean Energy, Seaports and Shipping, Seabed mining, Marine Biotechnology, Marine Tourism. However, the pandemic has also delivered unusual environmental benefits through reduced economic activity and consequent curb on ocean emissions and air and water pollution. The paper discusses the concept of blue economy with a focus on India, its potential and fragility; the requirement to maintain it sustainably; current status and Government's initiatives to build its important components; and the impact of corona pandemonium on the blue economy. Suggestions have been made to manage these resources sustainably.*

Keywords: Blue Economy, Marine Resources, Sustainable, Fisheries, Aquaculture, Covid-19, Pandemic.

INTRODUCTION:

Oceans comprise 72% of the planet's surface, 99% of its living space (by volume) and app. 95% of its biosphere. (Living Ocean, Science Mission Directorate). A source of protein rich food and livelihood for more than three billion people, these facilitate transport of more than 80% of global trade. Marine and coastal resources and industries have a market value of around 5% of global GDP assessed at USD 3 trillion per year (UNCTAD, 2017). The annual market value of the coastal and marine resources has been assessed at US\$3 trillion (Global Ocean Commission 2014), and annual gross revenues have been estimated at US\$2.6 trillion (Golden et al. 2017). It includes \$US100 billion from aquaculture and fisheries alone (United Nations, Department of Economic and Social Affairs, 2017). These sectors generate about 260 million jobs. In small island nations like Palau and Seychelles, contribution of marine based tourism to export earnings exceeds 50 per cent with Fishery industries alone contributing 10 to 50 percent of their GDP.

The sector is expanding at a rapid pace. Ocean based economy encompasses components ranging from long standing conventional marine based industrial enterprise such as fisheries and fisheries product, marine tourism and transport; and emerging ventures, like aquaculture, non-conventional energy, seabed extraction, bio prospecting, valuable chemicals, marine biotechnology, new drugs etc. (World Bank Group, 2017; Goddard, 2015; World Bank and United Nations Department of Economic and Social Affairs, 2017). Many of services provided by oceans such as coastal protection, carbon sequestration, biodiversity etc. cannot be explained in monetary terms (World Bank Group, 2017). Ocean-based trade is likely to grow four times by 2050 (ITF, 2015); two third of food production can be farmed from seas by 2030 (World Bank, 2013) and offshore wind energy will lead power generation sector in coming days (IRENA 2016).

The concept of Blue Economy was propounded in 2010 by a Belgian economist, Günter Pauli in his book- "The Blue Economy: 10 years, 100 innovations, 100 million jobs". The concept views oceans as

“Development Spaces” and emphasizes on integrated planning of ocean economy with inclusivity, equity and environmental sustainability. Broadly, it can be understood as the use of ocean resources for economic growth in a sustainable manner without harming the health of ocean ecosystem to provide livelihoods and jobs. He saw a tremendous potential in this economy for boosting the economic growth besides supporting food security and quality.

Blue Economy gained recognition with Rio +20 United Nations Conference on Sustainable Development (2012) discussing the role blue aspect of the economy can play for the Advancement of the “Green Economy”. Ever since Oceans have received greater focus and coordinated action through global initiatives in the UN five-year Action Agendas.

Silver et al. (2015) identified natural capital, good business model, and fisher community’s livelihood as important narratives about potential of blue economy. The term “blue” found assimilation with green economy as marine green economy (European Union, 2102), “Green Economy in a Blue World (UNEP and others, 2102), “Blue Growth” (FAO, 2013) or “Green Growth in Fisheries and Aquaculture” (OECD, 2015).

THE BLUE ECONOMY OF INDIA

Blue economy in India is summated as the total of marine resources based economic activities with fisheries, deep sea mining, and off-shore oil and gas making significant contribution and constitutes app. 4.1 % of India’s economy (Mohanty, S. 2020). However, since a number of services like carbon sequestration, coastal protection, waste disposal etc. provided by ocean ecosystems though contribute significantly to economy but go unreported, the actual figure may be higher. Marine sector has the potential of supporting country’s economy in a big way India coastline of about 7,500 km running through two union territories and nine states is a source of livelihood to over 250 million people (Dhiman et al, 2016). Indian Oceans are a major conduit of trade supporting app. 80% of global oil trade. A report of The Energy and Resources Institute (TERI) indicates that the fisheries sector dominates blue economy in India and occupies second position in world fish production. The country has so far explored only 1.5 million sq. km. as an exclusive economic zone (EEZ) across its waters out of 2.3 million square kilometers available to it. Its claim to expand already approved 200 nautical miles to 250 nautical miles (max. permissible) is pending since 2009.

India is strategically placed in the Indian Ocean region (IOR). The blue economy has attracted the attention of IORA member states to leverage it for balanced economic development of their oceans (Blue Economy, IORA, 2019). The IORA while deciding to establish a Blue Economy Working Group (Blue Economy, IORA, 2019), recognized the important role blue economy can play for inclusive economic development, sustainable management of ocean resources and employment generation in its Action Plan for 2017-2021. As such, the blue Economy of India can play a crucial role in its economic development and offers opportunity to achieve its national socio-economic objectives like livelihood generation, poverty alleviation, energy security, improving living standards of coastal population etc.

India has committed itself to achieve SDG 14. It therefore becomes a matter of paramount importance that the country manages and protects its marine and coastal ecosystems sustainably. Challenges of ocean acidification, illegal, unregulated and destructive fishing practices, ocean pollution through anthropogenic activities etc. should be effectively countered. Conservation of minimum 10% of marine and coastal areas as mandated by national and international laws should receive priority. Plans to extend economic benefits to small islands and lesser developed coastal areas should be pursued.

Current Status

Fisheries and Aquaculture, Renewable Ocean Energy, Seaports and Shipping, Offshore Hydrocarbons and Seabed Minerals, Marine Biotechnology, Marine Tourism, Research and Development

have emerged as priority pillars in the blue economy in the country. The other opportunities are sea bed mining, cosmetics, and the innovative marine molecules sector (Spalding, 2016).

Fisheries & Aquaculture

Aquaculture provides about 50% of fish for human consumption and is the fastest growing food sector. It is predicted that app. Two-third of food production will be farmed from sea by 2030 (Msangi, 2013). Fisheries area sunrise sector of livelihood for over 1.60 crore people in India and its development is of paramount importance for nutritional and food security and livelihood to predominately rural coastal communities. Fish production in the Indian Ocean has seen significant increase from 8.61 lac tons in 1950 to 115 lac tons in 2010. With over 1.5 crore MT fish production, India is world's second largest producer of fish. It occupies world number two position in aquaculture also (fish farming of select species of high consumption and commercial value). (Venkaiah Naidu, 2019). App. 1.4 million MT worth Rs 45,000 crore of fish and fish products were exported during 2017-18. Global demand for fisheries products is anticipated to rise exponentially and as such fisheries sector has a crucial role to play in fish farmers' economy. Even though in recent years, the exports of these products has seen an impressive growth of app. 20 percent/year both in quantity and value, India should target to improve its share in world market with a focus on diversification of products. Promotion of sustainable fishing and aquaculture practices, avoiding overexploitation and habitat damage, providing market support to the aquaculture industry, and policy support by the Government are important to sustain the industry in perpetuity. It is heartening to note increased budget allocation for this sector aimed to create infrastructure and boost fish production.

CORONA AND BLUE ECONOMY

WWF holds global ocean assets account for about 5 to 7 % of global GDP at over US\$24 trillion to be the seventh largest economy. In terms of its size, the global blue economy is worth \$2.5 trillion. Blue economy of EU nations has a turnover exceeding 560 billion Euros. It creates value addition of app. 175 billion Euros and generates 3.5 million jobs. Twenty percent of total employment in Spain is linked to blue economy sectors. Italy, Greece and the UK have also made significant growth in blue economy and allied sectors (ECMA2018). As such, a huge impact of the corona virus on the sea-based economy is a logical consequence.

The COVID-19 pandemic has steadily rippled through this economy and as per World Trade Organization is expected to trigger a decline of current year's world trade by 13% to 32%. Most of its sectors like coastal and maritime tourism, fisheries, aquaculture and seafood production, maritime transport and logistics comprising of sectors like are likely to be heavily affected. App. eighty per cent of worldwide trade (by volume) takes place by sea. Covid-19 pandemic presents a unique challenge to marine economy affecting fisherman at sea and those with livelihood dependency on it. A large number of the world's 4.5 million fishing vessels remained static at sea for months. Little more than a 1 billion people dependent on fish for protein will remain undernourished without it. In China and West Africa, reduced demand for seafood has seen a decline in fishing activity by as much as 80%. Blue tourism has also seen an average drop of 25% in income, which translates to a loss of \$7.4 billion and may risk 75 million jobs. As per an assessment of the UN Economic and Social Commission for West Asia (UNESCWA), pandemic slowdown may affect adversely an additional 8.3 million people in the Arabian world alone.

Conditions also pose a threat of pandemic outbreak. Fishing vessels that would be at sea for long will be vulnerable to shipboard corona outbreaks. Vessels returning to shore each day have unrestricted access with buyers, processors, and communities and run a risk of an outbreak since in such conditions social distancing may not be easy to maintain. An outbreak in Vessels that trans-ship catches (from one vessel to another while at sea) can prove catastrophic. Likewise, the vessels that fish offshore for long face

serious challenges in handling the threat of Covid-19. The possibility of leaving port with infected staff and spreading it at sea in cramped and crowded conditions cannot be ruled out and it poses a serious threat to public health and human rights. Fisheries employ app 50 million people with not so impressive records on safety, health, and human rights. Ocean tourism will be the worst pandemic victim. \$36 billion worth coral reef tourism will see depleted revenues making marine tourism dependent island economies vulnerable. Ocean tourism accounts for over one-quarter of GDP in such countries.

CONCLUSIONS

With an oceans cover over three-quarters of the Earth's surface, 99% of the living area on the planet (by volume), holding 97% of the earth's water, absorbing capacity of app. 30% of global CO₂ emissions, producer of app. 50 % of Oxygen we breathe and a repository of 3-5% of global GDP, blue economy can hardly be ignored. Unfortunately oceans are perceived only as everyone's resource but no one's responsibility.

A "fundamental changes" is required to the way the world's marine economy is managed. Marine economy contributes app. 4.1 % of country's GDP in India and the country should adopt the approach of balancing economic benefits with sustainability. Sustainable management of ocean resources requires collaboration across nation-states and across the public-private sectors. Developing the political will to implement all elements of a sustainable blue economy strategy should become integral to the ocean development plans of the countries.

COVID-19 has exposed just how profoundly linked our economies and well-being is to the ocean. Focus is required on developing an effective response mechanism to address humanitarian crises during sea based natural disasters. The paper emphasizes developing a protocol for inclusive and sustainable management of marine resources. A proactive coordinated strategy across jurisdictions is needed to provide health services to sea workers and ward off against their prolonged stranding in vulnerable conditions. There is an urgent need to establish guidelines and regulations for communication channels and working conditions and at sea, to mitigate the vulnerability of fishermen during such crisis and other natural disasters.

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