



# **NIAS Discussions**

NATIONAL INSTITUTE OF ADVANED STUDIES (NIAS) Indian Institute of Science Campus, Bengaluru, 560012

## Blue Economy A Maritime Strategy for India's Growth

#### Report of NIAS Wednesday Discussion held on 15 June 2016

Adarsh Vijay, intern at the ISSSP, NIAS presented his initial research findings on 15 June 2016. The larger work is likely to be published as a NIAS report/working paper later in 2016. Following is the abstract of the discussion.

### About NIAS Wednesday Discussions...

The NIAS faculty meets every Wednesday morning for academic discussions on various topics. As envisioned by Raja Rammana, the Founder Director of NIAS, and pursued by his successors, the Wednesday meetings present the ongoing research, work-in-progress, and new/innovative ideas from the research studies of the faculty and the young researchers.

This Forum provides an excellent space to present one's work and also receive feedback and comments. Besides NIAS faculty and doctoral scholars others from outside the Institute also take part in these discussions.

Prof. Sangeetha Menon (smenon@nias.iisc.ernet.in) coordinates these meetings. The Indian Ocean Region (IOR) has been witnessing dramatic shifts at the economic and strategic levels. Blue economy as conceived by Gunter Pauli is capable of delivering manifold benefits for India. Apart from the achievement of a healthy ocean with higher productivity, it has serious implications at the foreign policy level.

Blue economy signifies a strategy for ocean exploitation by incorporating the principles of social inclusion, environment sustainability with innovative and dynamic business models. It embraces organic and renewable inputs as catalysts for the blue model. In short, it strives for greening the ocean economy. India is yet to have a sound policy on the prospects of blue economy.

The following questions need to be addressed: What are the components of blue economy for India? What is the "geographic" spread? Why should India push for blue economy? What are the economic implications for it? And how can India use blue economy as a soft power in its neighbourhood?

The components of blue economy are subject to



change for every country. Considering the geographic and demographic narratives, New Delhi's focus can be ranging from fisheries & aquaculture, ports & shipping, oceanic resources, energy security, marine tourism to marine services & technology. Marine species, especially fish, are rich sources of proteins and nutrients. An innovative and sustainable approach offers a better livelihood security for the fishing communities and food security for the citizens. The presence of polymetallic nodules such as iron, manganese and zinc along with the untapped oil and natural gas reserves promise a sufficient constituent for foreign exchange earnings.

India's outreach for the exhaustion of "blue" options spreads across the IOR covering the Arabian Sea and Bay of Bengal. The Make in India initiative can be further be expanded with the "blue growth." Country's sea assets are also capable of meeting the energy requirements through renewable means. Offshore solar and wind plants, saline gradients, ocean thermal energy and wave & tidal energy are the available options for a green-energy basket. Estimates by the Ministry of New and Renewable Energy (MNRE) and Indian Renewable Energy Development Authority (IREDA) reveal that the country's maximum renewable energy potential stands at 147.615GW.



Sea-borne trade and port-led development has been accorded primacy even in the Strategic Plan for New and Renewable Energy Sector (2011-2017) released by the Government of India. Offshore-infrastructure is another possibility which can bring a sustainable port and shipping regime. The transloading mechanism can help reduce the marine pollution and costs incurred by virtue of the less time consumption on cargo-unloading. It further enhances the connectivity of the hinterland with the mainstream maritime activities once the inland waterways are used for cargo transportation in lieu of the road and rail networks. It is also capable of rendering a new lease of life for the unutilized minor ports within the country.

As a green-oriented effort, it can facilitate a circular economy with zero-waste and zero-pollution and



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more employment. Marine biotechnology and services also open the vistas for a new cadre of technical workforce with immense opportunities. Marine industries such as boat and ship building along with sea-product processing firms join the "blue agenda." Marine industrialization brings coastal urbanization in its train. Measures are required to ensure the development of a consumption-centric tourism led urbanization in place of a production-centric coastal urban centres. It helps minimize environmental risks and ecological scarcity with optimization of natural resources within ecological limits.

Blue economy as a strategy is not devoid of challenges for India. Despite the demand for marine food products on a global scale, India would find it harder to identify the consumers owing to the competition among other blue economies such as Mauritius, Maldives, Australia, Sri Lanka, Bangladesh and China. Besides, the lack of culture of storage and adequate facilities for the same



pose another hindrance in the process. As most of the marine commodities are perishable, standardized quality on storage capacity is not worthy of compromise. Apart from that, the accounting of blue economic activities is still not uniform throughout the world. A definition by the European Commission in 2012 includes those activities which are direct and indirect in nature which finally leads to oceanic sphere that take place even in landlocked countries. The statistics on contributions made by the blue sector remains debatable out of this definitional frictions among countries.

Weather is also a concern particularly with the shipping and energy sectors. Bay of Bengal as a cyclone prone zone lessens the chance of a permanent use of offshore platforms throughout the year. Hence, a seasonal shift to the conventional land-based ports is a requisite to ensure relatively calm waters during monsoon. The western coast of India is much favourable for wave energy plants compared to the east coast because of the southwestern winds. Blue diplomacy is the key to the next level of India's Neighbourhood Policy. The Indian Ocean Rim Association (IORA) has held its Ministerial Dialogue on Blue Economy in September 2015. Indian PM Narendra Modi had also issued a joint statement with Mauritius which identified the core areas of interests in the realm of blue economy. The strategic connotation for blue economy is much wider than what is currently perceived in terms of its economic dimension.

To conclude, blue economy guarantees a green perspective to maritime economy which is presently seen as a means of free resource extraction and waste dumping. It seeks to take into cognisance the cost of all negative externalities including environmental degradation and ecological imbalance. In short, it postulates a complementary apparatus to the existing brown model of ocean economy.