Blue Economy
Insight
November 2020

From Editor's Desk

Blue economy is being widely viewed as a transformative paradigm of development. Positive externalities of blue economy orientation in development policy accrue to coastal as well as the non-coastal economies. With advancement in technology and improved mapping of ocean resources, the strength of blue voice has grown in recent years. Multilateral institutions like the UN, World Bank, UNCTAD, UNEP and regional forums like G20, ASEAN, IORA, and BIMSTEC have initiated various studies and programmes to understand the potential in blue sectors and the possible modalities of international cooperation and collaboration.

Although blue economy covers a wide range of sub-sectors within the three broad sectors, e.g. agriculture, manufacturing and services, the priority sectors differ from country to country based on the resource endowments. For instance, fisheries and marine tourism constitute a larger fraction of national income of Small Island Developing States (SIDS) whereas the contribution of blue economy as a whole could be relatively low for large countries like the United States, China and India. It is redundant to rank various sectors of blue economy, but it would be efficient to formulate a proper spatial and socio-economic planning of priority sectors for yielding desired results of blue economy in the form of job creation, export growth and upliftment of native coastal communities, particularly women.

While very little dispute exists over the overall contribution of blue economy to the development process in the coastal economies, governments and policy makers often face the daunting challenge of undertaking specific policies for development of blue economy in absence of any precise quantification of production, consumption and trade in various blue goods and services. Currently, the framework for factoring the blue economy component in national income accounting is varied and subject to different methodologies. While Input-Output (IO) tables are widely referred to for estimation of blue economy, the statistical classifications for identification of blue products and services are not uniform across countries. For example, the United States follows North American Industry Classification System (NAICS) and National Ocean Economy Programme (NOEP) whereas EU has adopted the Nomenclature Statistique des Activites dans la Communaute Europeenne (NACE). Other countries follow different variants of UN International Standard Industrial Classification (ISIC). While attempts to rebuild classification systems continue, it would be better to identify and negotiate for new activities under broad blue sectors in the forthcoming ISIC Revision 5.

DEEP-SEA MINING TECHNOLOGY FOR EXPLORATION DEVELOPED BY INDIA

India is evolving ocean technologies simultaneously for both Autonomous Underwater Vehicle (AUV) and Remotely Operated Vehicle (ROV) for various scientific applications. Recently, India has developed an ROV which can be deployed up to a depth of 6000 meters below the sea level to explore and engage in the exploration of deep-sea nodules. ROV is to transport several instruments including video cameras, lights, robotic arms to identify and collect metallic nodules from the ocean floor where landing of the human is not possible. India launched the 'Deep Ocean Mission' under which exploration work of deep-sea mining is to commence from this year and the project has a budgetary allocation of over a billion US dollars.

Country/Region: India

BLUE ECONOMY: OCEAN RESOURCES FOR INCLUSIVE DEVELOPMENT IN INDIA

There is a consensus emerging between developed and developing countries that the Blue Economy would steer the littoral economies on a high growth path

Progress in development thinking in Blue Economy has induced several literal economies to shift their future development focus in the realm of the Blue Economy paradigm. There is a consensus emerging between developed and developing countries that the Blue Economy would steer the littoral economies on a high growth path along with sustainable development if managed properly. Since resources are depleting fast on land, the oceans could be a credible source of resources. India's significant tilt towards development planning of Blue Economy is the outcome of the impressive experiences of several countries which are pursuing/planning their economic policies, using the principle of Blue Economy.

Blue Economy Initiatives

India's major policies relating to the Blue Economy were unveiled in 2015 when three major projects were announced to demonstrate India's commitment towards the Blue Economy. In March 2015, the Prime Minister described the 'Blue Wheel' in the Indian national flag as a symbol of the blue revolution or ocean economy. India launched a major project "SAGARMALA" to foster the port-led industrialisation in the country in July 2015. The key objectives of the project are to evolve port modernisation, connectivity between ports, coastal development and making ports as the driver of manufacturing-hub in India. It undertook the task of joining 111 rivers into national waterways and linking them with road transportation by creating the National Logistics Multi Model Transport Network.

India initiated an ambitious project as 'Security And Growth for All in the Region' (SAGAR) to secure growth and security in the Indian Ocean Region (IOR) with five principles in the maritime domain in March 2015. The project 'MAUSAM' was launched in April 2014 by Govt. of India with the objective of strengthening the cultural link with the IOR by connecting and re-establishing communication between countries in the IORA region.

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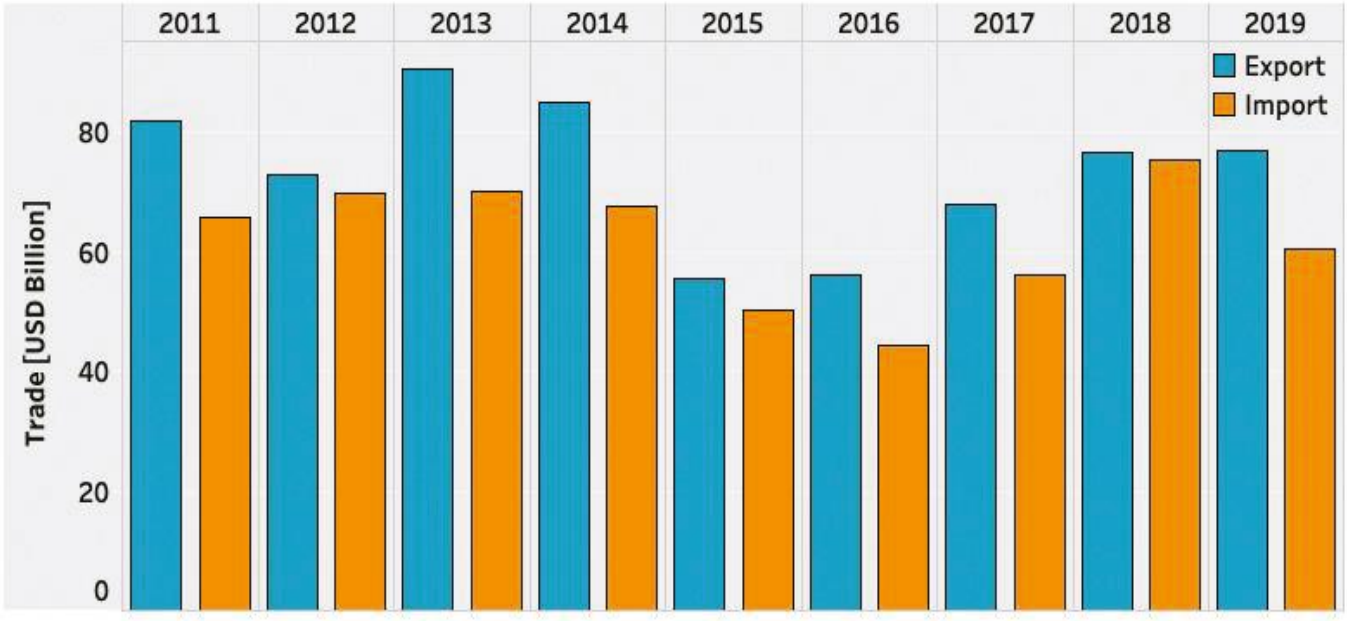
Contribution of Blue Economy

Blue Economy of India contributed 4.1 per cent of GDP in 2016 and its performance is considered to be better than many countries across the globe such as the US, Japan, Canada, France, Ireland, etc. With the commencement of the global recession, the contribution of Blue Economy to overall GDP in real terms declined/stagnated persistently during 2011-14. The second phase of recession marked a new beginning by witnessing a steady rise in the contribution of the Blue Economy to GDP in 2015 and 2016. This shows the resilience of the Blue Economy in mitigating the adverse impact of the prolonged recession.

Until the outbreak of COVID-19 in 2019 India was the fastest growing economy in the world. It registered a growth rate, ranging between 7-8 per cent during 2003-07. The current literature on Blue Economy indicates that it often grows faster than the overall growth rate of the country. India's experience was not different from the global experience where gross value added (GVA) of blue economy grew faster than the overall growth performance of the country in the second phase of the global recession. Rising contribution of the blue economy has its positive spillover effects on the generation of both white and blue-collar employment in the country.

Country/Region: India in Statistics

Trends in Blue Trade in India



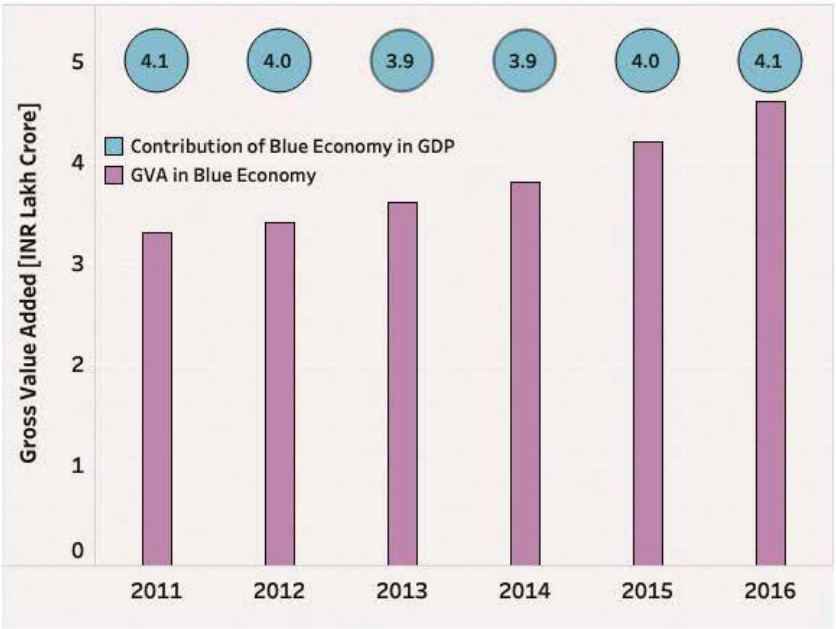
High Performing Trade

The global experiences indicate that the world trade grows faster than the production. Under the same analogy, Blue Trade should grow faster than the GDP of the Blue Economy. In the literature, there is a reference to Blue Trade which is different from seaborne trade or maritime trade. Any product, embedded with inputs which are either coming or going into the oceans, is a blue product. The process of identification of activities in the blue economy sector is not yet completed. When activities which are associated with a specific industry, are not identified, the product identified in each industry is a distant possibility. RIS has identified products in the domain of blue products which are traded globally.

Blue Trade of India was estimated at $137.5 billion where blue export was reported at $76.9 billion in 2019. During 2011-14, India's annual Blue Trade stood at $150 billion with a large trade surplus since 2002. However, the volume of trade in the sector declined at the beginning of the second phase of recession but resumed noticeably in 2017. The share of Trade in Blue Services (TIBS) remained significant for India. In 2015, Trade in Blue Goods (TIBG) declined both in terms of quantity and percentage share. The share of TIBS increased to over 35 per cent in 2016 and the share of TIBS declined gradually to touch the level of 30 per cent in 2019.

India has set up two committees namely 'National Blue Economy' and 'National Maritime Policy', which are under active consideration, to meet the pressing challenges of the ocean sector. India has understood the importance of marine technology for development of the Blue Economy. It has generated several new marine technologies in diverse key sectors. Some technologies developed indigenously are the development of underwater vehicles for deep-sea mining, desalination of water, offshore hydro carbon, hydrides, coastal placers etc. India has developed a strong institutional mechanism to promote the generation of critical technologies in the Blue Economy sector.

Blue Economy Contribution to Indian Economy



Sectoral Issue: Blue Trade

Blue Trade: A High Potential with Least Understood Sector

The sector registered high growth with respect to overall trade of the region during both buoyancy and recession.

Blue trade is a novel concept in the Blue Economy literature. It is a dependable sector for fostering economic activities in the Indian Ocean Region. The empirical evidence suggests that blue exports in the region have been growing faster than blue imports. The rapid growth of the sector was noticed during the period of the global buoyancy and started receding during the period of recession. Though growth momentum was lost during the period of recession, both blue exports and blue imports continued to maintain positive growth in the first phase of the global recession. In 2018, the region's total blue trade was $472.9 billion whereas blue export was estimated at $260.7 billion and imports at $212.2 billion. Blue trade registered more than seven fold rise whereas it was more than four fold rise for the overall trade of the region during 2002-19.

The sector registered high growth with respect to overall trade of the region during both buoyancy and recession. The global recession, in fact, has an adverse effect on blue trade making it highly sensitive towards the business cycle. Trade balance in the sector has been highly alluring for the region. In terms of volume of blue trade surplus in goods for the region, it has been growing consistently since 2002. Blue trade has been highly resilient to the global financial shocks and revived quickly after receiving a temporary setback in 2009. The surplus in the sector for the region was $7.3 billion in 2002 and reached the level of $99.9 billion in 2009, registering a 13½-fold increase during the period 2002-19.

It is apparent from the literature that the availability of marine resource endowments varies significantly within a country and therefore, variations in availability of resources may appear somewhat natural among regional countries. In 2019, as many as eight countries showed blue trade more than $15 billion. From total blue trade of $469.3 billion in goods of the region, the exports were $284.6 billion. In India, Trade in Blue Services was 43 per cent of its Trade in Blue Goods in 2017.

Intra-Regional Trade (IRT) in blue goods has been much higher than the overall IRT of the region since 2003. Overall IRT was reported at 24 per cent and IRT in blue trade was 32 per cent for the region in 2019. IRT in blue goods has been substantial among member countries, but the sectoral composition of such trade has been highly lopsided, similar to its blue trade with the world. More than half of the region's IRT is in the bunker fuel industry. Marine manufacturing is prime in regional trade with the increasing importance of other sectors—living resources and processed food. The region should cooperate in generating marine technology with the support of its member countries and dialogue partners to promote its potential in blue trade.

Viewpoint

Blue Economy: A Promising Idea for the World

Novelty of the Concept of Blue Economy

While concepts like 'green economy' propagates the necessity and importance of factoring environmental sustainability in economic decisions, 'blue economy' offers a holistic perspective of intertwining environmental sustainability and path to higher economic growth and development. Ocean resources have been part of human life for civilizations and a crucial component of national economic activity in many coastal nations of the world. But, for the first time 'blue economy' as an approach has magnified the potential of oceans and marine resources for societies and the development process. The novelty of blue economy is manifold: recognizing oceans as sources of growth and diversification than as sink, fuller and efficient use of marine resources for job creation and value addition, and restoring ecosystem and environmental sustainability without compromising its economic uses. So, in essence, it has captured the larger vision of development with efficiency, equity and sustainability principles embedded. The novelty aspects mentioned above are drawn from past experiences and the global & country experiences. Countries like United States, Australia, India, Indonesia, China, Ireland, Norway and SIDS underline the importance of blue economy as future source of growth and innovation. Recently, India has constituted two task forces to suggest formulation of National Maritime Policy and National Blue Economy polices.

Blue Goods

Blue economy is essentially a subset of the mainstream economy and covers the primary, secondary and tertiary sectors. Agriculture and manufacturing could be identified as blue goods. In that sense, blue goods include fish and fish products from both capture and aquaculture sources; seafood products in dried, frozen and other processed forms; fish oil; fish net, fishing gear, seine, etc; algae and seaweed products; ship building and shipping equipments; marine engineering products; marine instrumentation, etc. In fact, blue goods represent the marine counterpart of land-based agriculture and manufacturing sectors besides certain specific blue goods sectors like port and shipping products. With proper policies and investment, coastal nations can increase local employment, entrepreneurship and business innovations. Micro and Small Scale Industries (MSMEs) could prosper in the coastal districts with export linkages.

Blue Services

Ship repair, shipping finance, marine banking & insurance, coastal tourism, port services like bunkering, pilotage, stevedoring, customs, freight forwarding, logistics, ecosystem services, marine legal services and several other activities form a large and comprehensive blue services sector. Some of the services could be scaled up with proper skilling and hand-holding of the local labour force and industrial units. Countries facing unemployment problems can explore seamless job opportunities in the blue services sector through education and incentivizing private entrepreneurs.

Legal, Institutional and Budgetary Provisions

While contribution of blue economy to national income is not disputed, what is missing is the recognition that blue economy could drive social and economic transformation rather being counterpart to land-based economy. Some countries have enacted National Ocean Act while some others have made special provisions for blue budgets and dedicated ministries/departments. In nutshell, blue economy which is much broader and larger for some countries relative to the land-based economy can really provide much-needed policy thrust to the ocean and ocean-based activities. In other words, coastal economies need to introduce necessary legal, institutional, regulatory and budgetary reforms to prioritise investments and public financing support to develop blue economy.

SDG-14 and India's Commitment

The UN 2030 Agenda for Sustainable Development (SDGs) has been viewed as the umbrella governing principles for achieving inclusive and sustainable development in the world. Blue economy, some of its features contained in SDG-14, truly embraces the aspirations enshrined in different SDGs. Like SDGs, blue economy argues for a course correction in human activities relating to oceans, both in processes and products. Moreover, unlike pure environment-centric models which inherently requires lowering of economic ambitions, blue economy assigns highest priority to the social and economic use of ocean resources and prescribes environmental and ecological parameters as enabling conditions and benchmarks. By shifting obsession from an extractive mindset for higher GDP growth to sustainable utilization and replenishment of resources such as fisheries, coral reefs, marine habitat, preventing coastal degradation, prohibiting marine litter, etc. blue economy heralds a new era of new habits with respect to domestic and industrial uses of ocean resources. Barring national efforts, international cooperation and collaboration would be critical to develop and promote blue economy in the world.

Book Reviews:

Blue Economy of India: Emerging Trends

Adluri Subramanyam Raju

Studera Press. 2019. 183 pp. ISBN 9789385883545

As is well known, blue economy is an emerging sector for the coastal nations including India. Like other countries India has underscored the importance of developing blue economy for economic growth, occupational diversification and value addition. Literature on blue economy is scant and fragmented. This book is a modest attempt to provide a comprehensive coverage of blue economy in India especially the important sectors and the policies undertaken to seize opportunities in those sectors.

With respect to marine minerals, India has large reserves of placer minerals along its coastline. Besides coastal minerals India can enhance its technological capability for commercial exploration of deep-sea minerals like cobalt, nickel, etc. Further, exploitation of natural gas hydrates in the Indian Ocean can help India reduce its imports of natural gas. Energy sources like wind, tidal, thermal, marine current and osmotic power can be harnessed from oceans. With adequate infrastructure India's energy potential of 180,000 MW, 40,000 MW and 9000 MW for ocean thermal energy, wave and tidal respectively can be scaled up to meet growing energy demand. Among other sectors, deep sea fishing activity is currently low; but can be developed with suitable technologies. Coastal tourism especially cruise tourism is another emerging sector for local job creation and community development. Poor port infrastructure and lack of domestic lines on Indian coast are often identified as hindrances in promoting coastal tourism. Shipbuilding industry could be developed in India due to availability of cheap labor, technical know-how and a developed steel industry.

For effective and orderly growth of blue economy, there is a need for a focused, coherent and coordinated policy at national and regional levels. Multiple ministries and lack of coordination among them creates confusion and uncertainty among investors. *Sagarmala* is an ambitious initiative in that direction. The initiative aims at developing ports, inland waterways, creating special economic zones along coastal areas to support port-led industrialisation in the coastal areas.

By presenting a systematic compilation of sectors and policies, this Book could be a useful reference for further research on blue economy in India.

Rethinking Innovation for a Sustainable Ocean Economy

OECD

Paris: 189 pp. ISBN 9789264311046

Population growth, climate change and over-exploitation of marine resources affect the sustainability of ocean resources. With growing awareness about ocean economy global efforts are concentrated in conservation and development of ocean resources, enhancing collaborations and proper measurement of the ocean economy. This Book by OECD is a timely contribution in that endeavour. The book highlights the critical areas of innovation and the institutional collaborations needed to lead innovations in those identified sectors.

Some of those crucial innovations include improving ballast water treatment which could reduce maintenance costs of ports and increase tourism; innovations in aquaculture in site selection, breeding, feed etc.; and expansion in renewable sources of energy like floating offshore wind technology reduce carbon emissions. Innovation networks comprising higher education institutes, public research institutes, technology or innovation hubs could play catalytic role in promoting collaboration and partnerships in scientific and technological innovations in the ocean economy. The core areas of innovations include technologies like robotics, autonomous systems, wave and tidal technologies, new materials and structures, biotechnology and advanced marine sensors offshore wind energy, and oil and gas. Major sources of funding of all innovation network centers are national innovation fund, national research fund and industry contributions. By bringing together diverse organisations, innovation networks are able to improve policy maker's knowledge of the potential of ocean economy.

Along with innovation in technologies, innovations in ocean measurement are important for proper formulation of ocean policies. Satellite accounts are innovative tools for measuring ocean economy that is not covered in greater detail in the core national accounts. Satellite accounts allow the recording of environmental stocks and flows. The international community has developed the System of Environmental- Economic Accounting 2012- Central framework as the standard statistical framework for accounts measuring environmental stocks and flows. Ocean economy satellite accounts can include information related to marine ecosystem as well. Innovation is an important enabler of industrial transformation through Industry 4.0. This monograph would be highly useful for students, policy makers and practitioners in the field of ocean economy and sciences.

Blue Economy News

Economic Times, Oct 15, 2019

Govt to form committee for development of minor ports

At the 17th meeting of the maritime state development council, Shipping Minister of India announced the setting up of developing national grid for ports. As on date, only 44 minor ports are functional out of the 204 minor ports in India. Hence, a new committee, devised by the shipping ministry, will assess the potential of each minor port, their linkage with downstream industry, and agricultural potential. States would develop ports on their own through PPP mode. It would contribute in increasing the EXIM cargo and in improving the share of coastal cargo which is presently low. In doing so, the state governments decided to implement uniform rules to ease the movement of barges between states.

Economic Times, Nov 17, 2020

New policy for setting up ICD, CFS to help in balanced development of ports sector

The zoning and distance rules in the revised guidelines for setting up of container freight stations, inland container depots and airfreight stations were issued by Central Board of Indirect Taxes and Customs (CBIC) to boost investments in the CFS/ ICD sector in less developed regions in the country. The revised guidelines have taken into account the issues faced by the sector; including regional disparities in concentration of facilities, with high concentration of CFS in western and southern regions.

Indian Express, Sep 10, 2020

Indo-Pacific cooperation, maritime security in focus at trilateral dialogue

The prime focus of the first India-France-Australia trilateral dialogue held on 9th September was on enhancing cooperation in the Indo-Pacific region. Emerging challenges including the financial impact of the pandemic on the Indian Ocean region countries and maintaining resilient global supply chains formed the important part of the discussions. The Indian side underlined its interest in collaborating issues on sustainable fisheries in the Indian Ocean, technologies for harvesting of Deep Ocean Resources and Ocean Thermal Energy Conversion.

Sep 13, 2019

Private Sector participation in maritime communication service business

Tata Group's Nelco announced the launch of maritime communication services, becoming the first Indian company to offer communication services to the maritime sector. This will enable voice and internet services for sailing vessels, cruise liners and coastal vessels using satellite technology. Nelco also said that they will form global partnerships to place transponder capacity on ISRO's satellite. They said, this will improve operational efficiency of cargo and cruise vessels, along with improving crew welfare and customer services.

Financial Express, Sep 23, 2020

India expands Maritime Security footprint in IOR. Joins Djibouti Code of Conduct, Jeddah Amendment as an Observer

India recently joined the Djibouti Code of Conduct/ Jeddah Amendment (DCOC/JA), a grouping of 18 member states adjoining the Red Sea, Gulf of Aden, the East coast of Africa and Island countries in the IOR, as an Observer which will enable the participation by India on a coordinated multilateral track. This also, in turn, would contribute to India's efforts in enhancing maritime security and safety in the IOR.

BLUE ECONOMY FORUM

BEF

About BEF

Blue economy has emerged as a commonly acceptable development paradigm which has effectively blended economic growth with sustainable development. Since the early 1990s, the global debate has enabled the world community to acknowledge the efficacy of the idea of Blue Economy. The concept has been accepted and promoted by both developed and developing countries as a new development model for littoral countries, including small, medium, large, LDCs and Small Island Developing States (SIDS). This development model started with the basic premise that the oceans and ocean-related activities are important for economic and social development of the coastal nations, and these activities form the core of the Blue Economy. Maritime fishing, shipping, maritime trade, etc. are not only part of Blue Economy as construed traditionally, but several other activities, deeply entrenched in almost all sectors of the economy, are also forming part of blue economy. In order to provide a holistic perspective on the role of blue economy for the societies and economies and help aid policy making in the coastal nations, RIS has initiated Blue Economy Forum (BEF) as a dedicated pillar of its work programme.

Blue Economy Forum (BEF) aims to serve as a dedicated platform for fostering dialogue on promoting the concept in the IORA and other regions. The forum would also focus on conducting studies on the potential, prospects and challenges of Blue Economy; providing regular inputs to practitioners in the government and the private sectors; and promoting advocacy for its smooth adoption in national economic policies. Research findings of the forum will be disseminated in the form of reports, monographs, policy briefs, statistical profiles and newsletter. In addition, the forum would undertake studies on cross-cutting issues including role of SMEs, women empowerment, vulnerabilities of Small Island Developing States and private sector participation. The forum would facilitate linkages between the policymakers, academicians and business community in the IORA and other regions

RIS
Research and Information System
for Developing Countries
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