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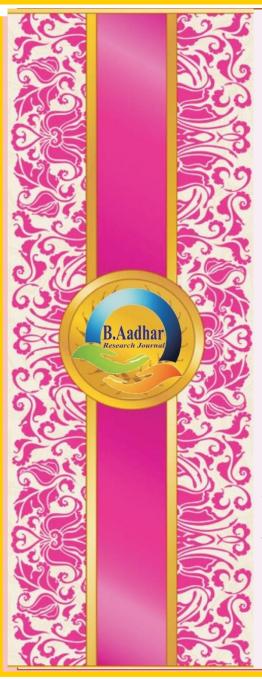
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Certificate of Appreciation

This certificate is proudly presented to Asst.Prof. Akanksha Mangavkar of Prahladrai Dalmia Lions College of Commerce and Economics adjudged Best Research Paper Presenter for Presenting Paper titled Blue Economy - the New Paradigm of Indian Economy at One Day Multidisciplinary E-National Conference On "Role of Commerce, Industry and Management in Accelerating Creative Economy" jointly organized by Department of Commerce, BAF and Economics, Konkan Gyanpeeth Uran College of Commerce and Arts, Uran, Navi Mumbai held on 13th April 2024.

Prof. V. S. Indulkar Conference Convener Dr. A. R. Chavan IQAC Coordinator

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Blue Economy - the New Paradigm of Indian Economy <u>Ms. Akanksha Mangavkar</u> <u>mohini.n@dalmialionscollege.ac.in</u> 9702078690

<u>Abstract</u>

This paper aims to study and analyze the concept of Blue economy in a pragmatic manner as a solution to growing global concern of sustainable development. Though the concept was introduced in 1994, it is gaining global importance post 2015. Blue economy is a part of Green Economy which needs to be developed as a new source of sustainable resources. Marine resources have been underutilized over the years due to many reasons, but one of the major one has been unawareness about its utility as a source of energy, raw material, export promotion, tourism, oceanographic surveys and studies, solution to climate change and global warming, and much more. This paper identifies various economies thriving on the basis of Blue Economy and explores the policy initiatives taken up by Indian Government. This would turn a new leaf in the economic landscape of India and give us a new paradigm in building a self-sufficient, strong and sustainable economy.

Keywords - Blue Economy, Sustainable development, Climate Change, Policy initiative, Selfsufficiency.

Introduction

Development without sustainability is like a ship without an anchor, it can see the destination but cannot hold itself. In times of calamities an anchored ship sustains for a longer period and does not go haywire. Similarly, an economy with sustainable development can withstand any economic shock and still hold itself together. There are many pathways to infuse sustainability in the Indian Economy and one of them is via strengthening the "Blue Economy". Even one of the SDG goals is about conserving and sustainably using the oceans, seas and marine resources. In pursuit of using the limited land to the best of our capabilities we have ignored the vast expanse resource surrounding land i.e. "Marine Water". India has a rich and diverse source of Blue resources which have been ignored and not undertaken as a step toward sustainability.

Though the term "Blue economy" was formally coined in 1994 by Gunter Pauli at United Nations University, the modern Indian government has shifted its focus to the blue world in 2015. Ancient scripts prove that India has had a rich legacy of Marine resource utilization since the era of Chhatrapati Shivaji Maharaj. The naval base created by him and the marine sustenance during his reign is still an exemplary example of efficient usage of resources. Even Indian Vedas, Upanishads, Buddhist Jatakas and even historical evidence from the Mauryan empire depict detailed accounts on the idea of the maritime continuum. Not only in ancient era, but also in modern era, India was introduced to the concept of Neel Kranti in 1985, way befor even the term blue economy was coined. "India's tryst with its new sunrise sector – the blue economy hails from the Blue Revolution or the 'Neeli Kranti Mission' (1985-1990s) in the course of the 7th-FiveYear Plan under the leadership of Mr. Hiralal Chaudhuri and Dr Arun Krishnan"¹ but this mission had a limited vision of only increasing the income of fisherfolk, today the concept of .blue economy envisages anything on the ocean, in the ocean and below the ocean.

Importance of the theme and significance of the study

Today the world is growing but a very few economies are developing sustainably. We are forgetting that Mother Nature needs no one for her sustenance, but without her, our survival is impossible. Dynamism leads to progress. If the progress has to be sustainable, then the methods and tools too need to undergo change. Till early 90's, sustainability had been associated with the terrestrial environment, but there is a paradigm shift in the thinking about the concept of environmental sustainability i.e. the "Blue Economy".

In the Indian economy the action oriented discussion about tapping the untamed ocean resources started in 2022 and in the interim budget of 2023-24 the blue economy also included the emphasis on advancing Blue Economy 2.0.

Unfortunately, modern day development is considering oceans as dumping grounds instead of a resource. Buildings have been built by reducing the coastline, untreated industrial waste has been dumped into the oceans. Today Indian maritime tradition appears to have undergone a transformation. Earlier it comprised fishery, defense and mercantile functions. Today it comprises renewable energy, fisheries, waste management, maritime transport, climate change and tourism, deep sea minerals, aquaculture, coastal manufacture and services, coastal energy, offshore trade and much more.

Though the Indian Blue Economy is flourishing, ocean littering is a growing matter of concern, India needs "Blue Economic Revolution" due to following reasons:

- 1. To mitigate the impact of climate change.
- 2. To address and resolve the issue of food security.
- 3. To revive the productive maritime tradition of India.
- 4. To act as a catalyst in economic growth via employment generation.
- 5. To enhance absorption of carbon emission at global scale.

Objectives of the study:

Sustainable development is an essential part of any economy. The Indian economy over the years has focused on Green methods of sustenance and they have helped in controlling the

¹ Pg 7 - <u>https://www.usiofindia.org/pdf/20240112145305.pdf</u>

green carbon, but Blue carbon cannot be ignored. The Blue economy is a part of the Green Economy and it too, needs to be effectively implemented. The Indian government's thinktank NITI Aayog has coined its own definition of blue economy i.e. "the entire system of ocean resources and manmade economic infrastructure in marine, maritime and onshore coastal zones within India's legal jurisdiction, which aid in the production of goods and services and have clear linkages with economic growth and environmental sustainability and national security".

Thus objectives of this study are:

- 1. To understand the concept of the blue economy from an Asian perspective.
- 2. To identify the economies which have followed the blue economy policy and suggest measures to implement similar policies in India.
- 3. To study various policy initiatives of the Government of India with regard to launching the Blue Economy.
- 4. To identify the limitations of effective implementation of these policies.
- 5. To make the Blue Economy a sustainable solution in making India resilient and Atmanirbhar (self-sufficient).

Sources of Study:

This study plans to undertake study of secondary data from

- Government records of NITI Aayog
- Union Ministry of Earth Sciences (MoES) Reports
- National Centre for Sustainable Coastal Management (NCSCM)
- Published articles, research papers, News reports

Scope & Limitations of the study:

- Sources of data used have been majorly secondary.
- Paper has been descriptive in nature.
- Implementation could not be analyzed due to paucity of time.

Literature review:

- The Future of Blue Economy in India and its impact on the coastal region Dr. Sumanta Bhattacharya & Bhavneet Kaur Sachdev - This paper gives an insight about the role of the blue economy in sustainable development. It emphasizes the role of government in enhancing the role of oceanic resources in attaining economic growth.
- 2. Indian blue economy is thriving but country needs to be careful about marine litter. -Ashish Kumar Chauhan - This article sheds light on large scale water pollution occuring due to economics and industrial development. It suggests effective implementation of the policies chalked out by the government.
- 3. Blue Economy: India's Pathway to Sustainable, Secure, and Resilient Economy -

Published by The Economic and Research Institute of India - This book is a collation of voices of eminent thinkers on blue economy. It points out 3 pillars of the Blue economy
Maritime security, economic growth and sustainable development.

- 4. 5 reasons why the G20 needs a sustainable blue economy Davos Agenda This article highlights the role of Blue Economic policies in introduction of renewable sources of energy, decarbonization of global shipping, regenerative tourism, sustainable fisheries and conservation of coastal wetlands to enhance sustainable development.
- 5. Blue Economy: oceans as the next great economic frontier United Nations -REGIONAL INFORMATION CENTRE FOR WESTERN EUROPE - This article gives an example of shipping industry of Nordic countries, which have voluntarily adopted the "Towards Zero" strategy to reduce marine degradation. However it identifies the need of trained and skilled personnel to execute the transition of Brown and Green economy to Blue economy.
- 6. Exploring India's Blue Economy: Opportunities and Challenges for a Sustainable and Resilient Future DOI:10.13140/RG.2.2.16317.64486 Supra Subhadarsani, Jayshree Padhi, Monalisha Rana, Lopamudra Behuria, Priyadarsini Parida, Debadurlabha Sahoo, Soubhagya Ranjan Khuntia, Manaswini Mahapatra and Jyoti Prakash Sahoo This is a descriptive paper mentioning the challenges of Indian blue economy like overfishing, water pollution, under utilization of marine resources and has discussed the government initiatives for the same.
- 7. India and the Blue Economy: Challenges and Way Forward Dr Roshan Khanijo & Ms Samriddhi Roy From this paper we extract "In 2018, the first Sustainable Blue Economy Conference was held in Kenya. This provided an international forum for advancing global conversation on two important pillars of the blue economy: one, sustainability, climate change and controlling pollution, the other, production accelerated economic growth, jobs, and poverty alleviation." Also in this paper we find mention of blue economy being identified as an important parameter by indians right from our 7th Five Year Plan.
- 8. Blue Economy in the Indian Ocean: Governance Perspectives for Sustainable Development in the Region - Aparna Roy - this paper explores various dimensions in which the blue economy supports the national economy. It suggest blue economy as a solution for food security, employment, infrastructural development, climate change, regional development and suggests integration of marine policy with coherent governance instruments to ensure overall development.
- 9. India's blue economy priorities: maritime sector Rajoo Balaji This study has

focused on "*Decarbonisation*" as a major priority of blue economy via targeting the fuel emission, tracking the marine cargo traffic, noting the increasing tonnage, monitoring compliance of maritime rules and regulation and mainly by suggesting to harmonize the data standards of port vessel management.

- 10. Our Oceans and the Blue Economy: Opportunities and Challenges Dr. Abdullahel Bari - This paper proves with examples of other countries the importance of estimating the environmental value of oceanic resources leading to economic growth.
- 11. Emerging Blue Economy for Bangladesh: Opportunities, Challenges and Way Forward M. Golam Sharwar, M. Ziauddin Alamgir, Arif Mahmud - this paper states that "According to a World Bank report, the gross value added to Bangladesh in 2014-15 from the ocean economy was US\$ 6,192.98 million which was around 3.33 per cent of the Bangladesh economy." This progress is notable but a challenge identified here is lack of political will and determination to explore the potentials of blue resources to their fullest extents in Bangladesh.
- **12. Sri Lanka's Future: Towards a Blue Economy Wasantha Rathnayake -** This paper has identified the challenges faced by the Sri Lankan economy with regards to Blue resources utilization.

Asian countries which have incorporated Blue Economy -

The concept of Blue Economy has gained global momentum since 2000. Many Asian countries have thrived by developing blue resources². A few of them can be mentioned as follows:

- China China introduced the Shandong peninsula blue economic zone in 2011 to harness
 the benefits of blue resources. By 2015, this economic zone led to improvement in study on
 marine industrial cluster, quality of ocean and has strengthened their independent
 innovative capabilities of marine science and technology. With Qingdao Blue Silicon
 Valley and Delimitation Technology for China's Marine Spatial Planning, China has been
 successful in progressing towards sustainable development via a Blue route.
- 2. Indonesia In 2014 it was identified by the Indonesian government that it is one of the second largest producers of marine goods. To enhance the capabilities of the country and give Blue economy a boost in the country, the Indonesian government issued National Ocean Policy 2017 (which provided comprehensive roadmaps and policy guidelines to fulfill the government's maritime vision)³. In Spite of their efforts and hardwork, the

² Source - Successful Blue Economy Examples With an Emphasis on International Perspectives Lu Wenhai, Caroline Cusack, Maria Baker, Wang Tao, Chen Mingbao, Kelli Paige, Zhang Xiaofan, Lisa Levin, Elva Escobar, Diva Amon, Yin Yue, Anja Reitz, Antonio Augusto Sepp Neves, Eleanor O'Rourke, Gianandrea Mannarini, Jay Pearlman, Jonathan Tinker, Kevin J. Horsburgh, Patrick Lehodey, Sylvie Pouliquen, Trine Dale, Zhao Peng, Yang Yufeng. https://www.frontiersin.org/articles/10.3389/fmars.2019.00261/full

³ https://eastasiaforum.org/2017/12/14/security-challenges-to-indonesias-blue-economy/

government could not effectively implement the roadmap planned due to unforeseen nontraditional maritime security issues of illegal fishing, piracy, robberies, etc.

- 3. Bangladesh our immediate neighbor has initiated harnessing ocean resources available in the Bay of Bengal since 2014 i.e. nearly a decade ago and established Exclusive Economic zone. EEC has led to the country's overall socio economic growth and economic boom. "Bangladesh has a 710 km long coastline with an exclusive economic zone of 200 Nautical Miles inside the Bay of Bengal. Marine fisheries contribute 19.40 per cent of the total fish production of the country. Besides, on an average, 81.0 per cent of the international tourists visit Cox's Bazar in Bangladesh. The ocean of Bangladesh is contributing a noteworthy role to its overall socio-economic growth through enhancing the economic activities across the country and especially to the coastal zone at southern part."⁴
- **4. Japan** is a blue economy giant and has been contributing towards framing policies for effective implementation of the blue economy in various countries of Africa as well. They have been effectively addressing the 2 crucial global issues i.e. global warming and ocean restoration.
- 5. Malaysia Malaysian economy thrives on the marine-based economic resources, nearly 23% of its GDP is received from marine resources. Under the blue Economy initiatives one of the major revolutionary initiative was of the Malaysian Shipbuilding/Ship Repair Industry Strategic Plan 2020 which led Malaysia to become a high-income developed nation.⁵

<u>Findings</u>: From these examples we can learn that blue economy initiatives can bring about following paradigm shifts:

- Improves research and development in marine sector leading to a new avenues of employment i.e. maritime training and education programme, marine infrastructural development, formal ship building and ship wrecking industries, organised fisheries, insured under-water mining and many more.
- Marine tourism has proven to be an effective and high yielding foreign revenue sources. Many South East Asian countries have been encouraging marine tourism and flourishing in the tertiary sector as well.
- **3.** Countries like Bangladesh and Malaysia gained freedom after India and yet have a higher level of development as of 2022. The Blue economy and their Exclusive Economic Zone

⁴ <u>https://thefinancialexpress.com.bd/views/reviews/blue-economy-of-bangladesh-prospects-and-challenges-1611760062</u>

⁵ <u>https://www.eria.org/uploads/Malaysia-Blue-Economy-Position-Initiatives-Challenges.pdf</u>

have played a crucial role in this paradigm shift.

4. The problems of overfishing and piracy were overcome with the help of effective Marine Policies by Japan.

Policy initiatives by Indian Government

Many initiatives have been taken by the Indian government in order to gain benefits from high amount of marine resources available around the Indian coastal line. Some of them can ben mentioned as follows:

 In 2022, the Indian government has signed an agreement with France in order to chalk out a roadmap for strengthening the bilateral ties and economic exchange between both countries. India plans to leverage France's expertise in aquaculture for overall commercial development of marine resources.⁶

2. Identification of Priority sectors:

The seven priority areas identified were:

Priority Area 1: National Accounting Framework for Blue Economy and Ocean Governance
Priority Area 2: Coastal Marine Spatial Planning and Tourism
Priority Area 3: Marine Fisheries, Aquaculture and Fish Processing.
Priority Area 4: Manufacturing, Emerging Industries, Trade, Technology, Services and Skill Development
Priority Area 5: Logistics, Infrastructure and Shipping (including transshipments)
Priority Area 6: Coastal and Deep-Sea Mining and Offshore Energy
Priority Area 7: Security, Strategic Dimensions and International Engagement

⁷ Source - <u>https://incois.gov.in/documents/Blue_Economy_policy.pdf</u>

- 3. Sagarmala Sagartat Samridhi Yojana during the release of "Maritime India Vision 2030" in March 2021.⁸ This initiative has an estimated cost of Rs. 3,62,229 crores. It includes Coastal Infrastructure Development, Coastal Tourism, Coastal Industrial Development and Coastal Community Development. Sagarmala project has following components:
 - a. Port Modernization & New Port Development
 - b. Port Connectivity Enhancement
 - c. Port-linked Industrialization
 - d. Coastal Community Development
 - e. Coastal Shipping & Inland Waterways Transport

4. Ocean Services, Modelling, Application, Resources and Technology (O-SMART)'

⁶ Source <u>https://www.shiksha.com/preparation/articles/current-affairs-2022-india-france-agreement-on-roadmap-for-blue-economy-ocean-governance-blogId-88295</u>

⁷ Source - <u>https://incois.gov.in/documents/Blue_Economy_policy.pdf</u>

⁸ Source - <u>https://www.drishtiias.com/daily-updates/daily-news-analysis/sagarmala-projects</u>

Scheme launched in August, 2018.⁹ It plans to focus on Ocean Technology, Ocean Modelling and Advisory Services (OSMAS), Ocean Observation Network (OON), Ocean Non-Living Resources, Marine Living Resources and Ecology (MLRE), Coastal Research and Operation and Maintenance of Research Vessels. It plans to augment the capacity building of India in the oceanographic field at the international level, aid in strengthening India's contribution in sustainable way and help in achieving United Nations' Sustainable Development Goal (SDG) 14 to conserve and sustainably use the oceans, seas, and marine resources.

- 5. India-Norway Task Force on Blue Economy for Sustainable Development: Norway is an expert on ocean economy as 70% of its exports depend on the maritime industry. Both countries plan to commence a new collaboration on Integrated Ocean Management & Research.¹⁰
- 6. Pradhan Mantri Matsya Sampada Yojana: it is a scheme for the sustainable development of fisheries in India. In addition, the Blue revolution provides financial assistance to farmers, these schemes are why the industry is growing. Still, for the industry to take the next step, it will need investment from the private sector.¹¹ Indian fishermen are also assisted with replacement boats and nets, a livelihood support during fishing ban or lean periods along with extension and support services through 2,494 Sagar Mitras and 79 Matsya Seva Kendras.¹²

Suggestion

- For effective implementation of various policies initiated for marine employees, link all employees in sectors of Coastal Infrastructure Development, Coastal Tourism, Coastal Industrial Development and Coastal Community Development with Jan Dhan Yojana. So that middlemen can be eliminated while providing benefits
- Marine Life Insurance to be extended to all those who are working along coastal professions like fishing, deep sea mining, tourism, oceanic surveyors, Marine educators and trainers, marine engineers and many more. This would encourage more people to engage in blue economy.
- 3. Financial inclusion for maritime employees must be considered and financial assistance also needs to be assured to them.
- 4. Training and Education centers need to be popularized and hybrid forms of education for the same needs to be promoted at affordable prices, so that information asymmetry can be

⁹ Source - <u>https://www.drishtiias.com/daily-updates/daily-news-analysis/o-smart-scheme-2</u>

¹⁰ <u>https://www.drishtiias.com/daily-updates/daily-news-analysis/india-norway-task-force-on-blue-economy</u>

¹¹ <u>https://timesofindia.indiatimes.com/blogs/voices/diving-into-indias-blue-economy-a-sea-of-opportunities/</u>

¹² https://www.narendramodi.in/transforming-indias-blue-economy-into-a-green-engine-of-growth-579246

reduced.

- Migration needs to be controlled in order to protect the marine encroachment. Artificial land creation by reducing the ocean areas needs to be stopped as it leads to severe damage to marine flora and fauna.
- 6. Blue industries have a huge potential to generate employment not only in transitional sectors on marine economy, but in the newer ections such as port operations, marine tourism, aquaculture, carbon sequestration, habitat protection, conservation of endangered species, checking and controlling industrial waste disposal, etc.

Conclusion

India is working hard to create policies that will support the blue economy and invest in sustainable energy, with the goal of achieving a bright future. There are many potential in the blue sector, but there are also many challenges. Many vertical issues exist, particularly in the ocean's natural environment. India makes an effort to address them by establishing the benchmark for national goals and incorporating a multisectoral strategy through a blueprint that is more polycentric, people-centric, and nature-centric. Thus, modernization and sustainable development are the foundations of the marine organization created by Indian initiatives. To do this, India must uphold its core values of genuine innovation, sustainable development, and real adaptations to climate change in order to safeguard its interests and become a leading voice in the blue economy's policy-making.

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