

AN ASSESSMENT OF THE EVOLUTION OF THE BLUE ECONOMY AND THE GREEN ECONOMY UNDER THE G20

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INTRODUCTION

The post-war period was the time when scholars started developing the idea of 'sustainable Development' and 'growth oriented strategy'. The concept of the blue economy has emerged as a solution for the strategic planning of sustainable development. The combination of both strategies gave a new dimension to the study of conceptual study of the Blue Economy for both developed as well as developing countries. The growth oriented strategy mainly focused on ensuring stability through the available domestic endowments, which eventually turned its interest towards sustainable development. The concept of a Blue Economy has become one of the promising factors in addressing sustainable developments and the future of the marine ecosystem and marine resources. The concept of the blue economy can be understood with different ideas and dimensions since it is very closely connected with the concepts such as marine economy, coastal economy and ocean economy. The approach to the concept of the blue economy is different from country to country. In this regard, this paper makes an attempt to understand the importance of the Blue Economy and the initiatives that have been under the G20 towards preserving and maintaining marine resources.

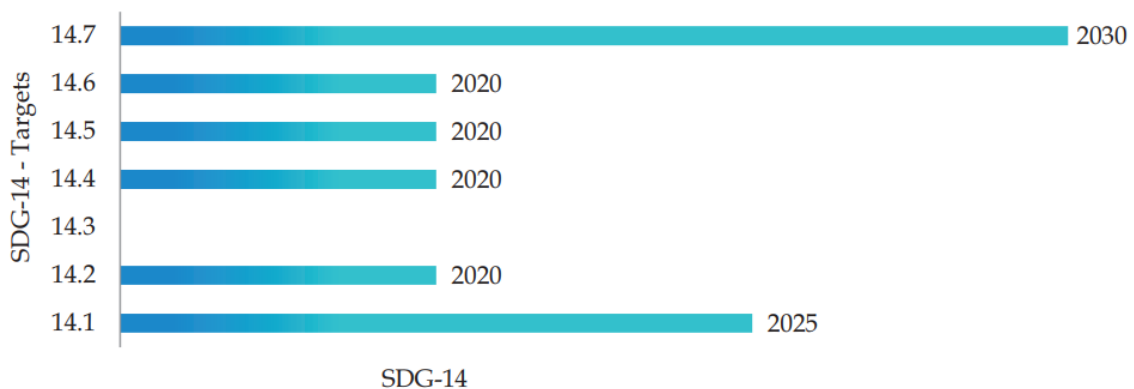
DEFINITIONS AND MEANING OF THE BLUE ECONOMY

According to the United Nations, the blue economy is defined as an economy that "comprises a range of economic sectors and related policies that together determine whether the use of ocean resources is sustainable." (United Nations in Western Europe , 2022) The definition given by the Centre for the Blue Economy says "it is now a widely used term around the world with three related but distinct meanings- the overall contribution of the oceans to economics, the need to address the environmental and ecological sustainability of the oceans, and the ocean economy as a growth opportunity for both developed and developing countries". Later, the World Bank has come up with its definition of the Blue Economy which says that "Blue economy is sustainable use of ocean resources for economic growth, improved livelihood and jobs, and ocean ecosystem health". (world bank group , 2017). The Commonwealth of Nations defines it as "an emerging concept which encourages better stewardship of our ocean or 'blue' resources."

According to European Commission, a blue economy is defined as "All economic related activities to ocean, seas and coasts. It covers a wide range of interlinked established and emerging sector". (press corner , 2021). And the Centre for Blue Economy defines the topic as, "Blue Economy" comprises the economic activities that create sustainable wealth from the world's oceans and coasts. The centre

examines ways that ocean and coastal resources can support economic development and enhance healthy, resilient oceans and well-managed coastlines. (centre for the blue economy , 2011)

Post the second world war, the concept of development became the prime interest of many countries, mainly through economic growth and a free market international economy. In the year 1972, a group of scholars and thinkers popularly known as the ‘Clubs of Rome’ became the root cause for the idea of sustainable development. The United Nations Conference on Environment and Development (UNCED), also known as Rio Summit or the Earth Summit, was held in 1992. The major outcome of the summit was Agenda 21: Green path for the Future, also known as the Rio Declaration of 1992. The declaration comprises 27 principles intended to guide future sustainable development. (Ghosh, 2022) In 2002, Rio + 20 United Nations Conference on sustainable development was held in Johannesburg as the completion of its 10th anniversary where the Rio+20 Summit focused on two main themes, 1. A green economy (in the context of sustainable development) 2. Eradication of poverty and institutional framework for sustainable development. In 2015, the United Nations has given a universal call for eradicating poverty and protecting the planet through a major initiative, Sustainable Development Goals (SDGs), to achieve this agenda by 2030 and to ensure peace and prosperity. And these SDGs consist of 17 goals which are also known as global goals. (SDGs integration, 2016). SDGs 14, Life Below the Water essentially creates a space for the conservation and sustainable use of the oceans, seas and marine resources. Marine pollution, Protect and Restore ecosystems, Reduce Ocean acidification, Sustainable fishing, conserving the coastal areas, End subsidies contributing to overfishing, Increase the economic benefits from the sustainable use of marine resources and marine areas, are the 10 charters that are focused on under the SDGs 14. (14 life below water , 2016). The concept of sustainable development touches on three main areas, economic, social and environmental dimensions. Of these, SDG-14 mainly deal with the environmental dimension and less with the social and economic dimension.



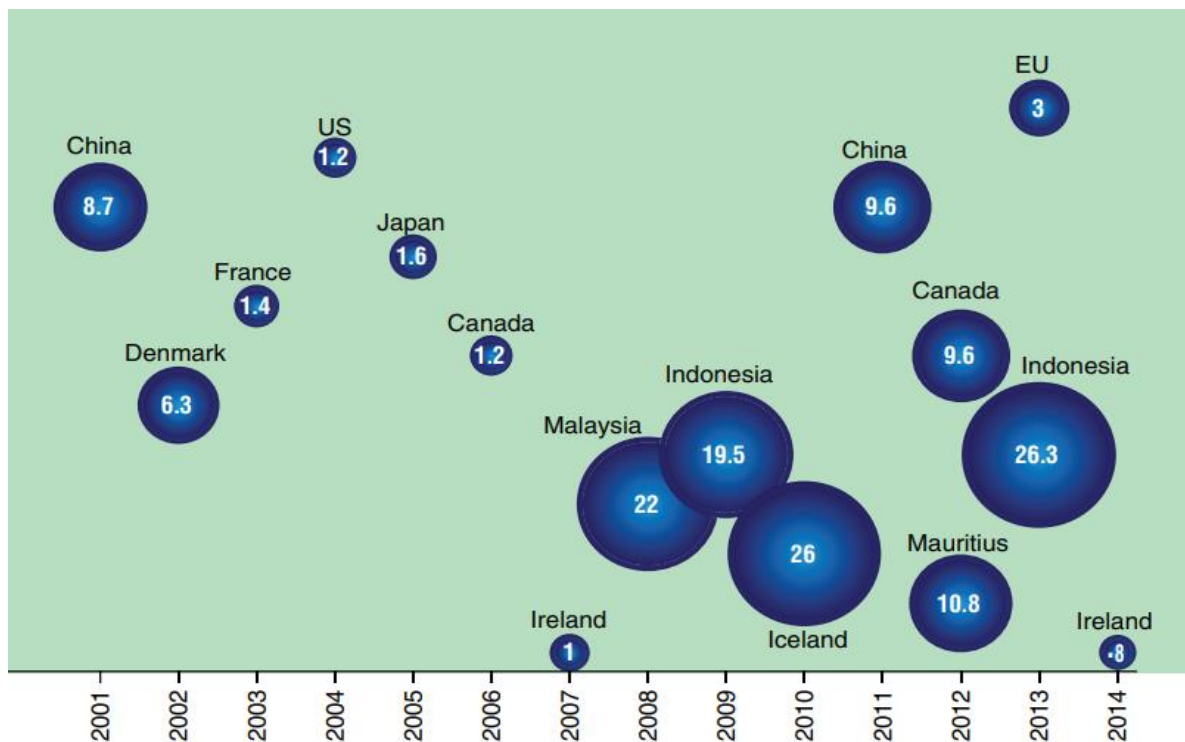
Source: Compilation from United States (SDG-14), 2015

The above diagram indicates the different timeline for the different targets under SDG-14. That in turn creates an imbalance in achieving the entire goal itself. This also leads to competition in reaching the targets by 2030, which might also contribute to enhancing the marine ecosystem as well as creating better awareness of marine resources.

RELEVANCE OF THE BLUE ECONOMY IN THE WORLD

After the financial crisis of 1997-1998, the international financial system has become vulnerable, particularly for developing countries. To bring economic and financial stability to the international system, the Governors of the central bank of the seven major industrial countries along with finance ministers came together, and this led to the establishment of G20 in 1999. These G20 countries represent around 90% of the global GDP, 84% of the global fossil fuel emission producers, 80% of the international global trade and 2/3 of the world's population belongs to G20 countries. These factors became significantly important in making the overall growth of the global economy. International financial system and institutions stronger. (G20, 2017) All the G20 countries are coastal states, comprising nearly 40% of the world's coastline also responsible for the protection of 20% of the Exclusive Economic Zone (EEZ) (Shugart-Schmidt et alii 2015). G20 countries have a key role to play in the ocean or the blue economy in recent times. Unlike other countries, G20 countries enjoy a close connection with ocean resources and ocean-related activities. Where G20 countries have shown their interest in the protection and sustainable use of marine resources, the oceans are considered one of the major drivers of the economy. Despite the use of ocean resources, G20 countries must address the challenges associated with those resources like marine pollution, illegal fishing, etc for their use.

“The Blue Economy Concept Paper” was presented at the United Nations Conference on the Small Island Developing States (SIDS). In 2016, the Blue Growth Initiative was taken by the Food and Agriculture Organization of the United Nations (FAO), which has helped support the sustainable management of aquatic resources. In addition, it has confirmed the conservation and balanced use of ocean resources for economic, social and environmental purposes. In the year 2017, the first step has been taken toward establishing the task group of T20 to analyse the possible opportunities to support G20 actions. (Dialogue, 2017).



Source: Blue Economy Enhancing Growth and Sustainability, report on Blue Economy, RIS Delhi, India

The above following diagram represents the percentage of GDP that is generated from the Blue Economy and this can be understood by analysing the size of the bubble.

This picture indicates the diverse range of the country's GDP generated from the blue economy. From the biggest economies of the world such as the United States, China and the European Union to Small Island Developing States like Iceland, Denmark and Mauritius are also the significant beneficiaries of the blue economy. For the countries such as Mauritius and Seychelles, the blue economy has become immensely important for the economic growth of the country and also the future of these countries mainly depending on the performance of the blue economy. (Blue Economy: Enhancing the Growth and Sustainability)

G20 AND THE BLUE ECONOMY

In 2017, under the German presidency, G20 has taken key actions to prevent marine litter, keeping the objective of human health and coastal and marine ecosystems. UNEP's (United Nations Environment Programme) report on "Marine plastic debris and microplastics - global lessons and research to inspire action and guide policy change" and reports produced in 2015 and 2016 by GESAMP (Group of Experts on the Scientific Aspects of Marine Environmental Protection) on "Sources, fate and effects of microplastics in the marine environment: A global assessment" led the foundations for the ground actions on marine litter. This action plan includes microplastics, single-use plastics to all kinds of marine

litter to reduce its impacts by 2025 to meet the Sustainable Development Goals agenda by 2030 and the issues related to marine pollution, wastewater treatment, waste management and to ensure sustainable use and production of marine resources through ‘G20 Operational Framework’ and the voluntary GNC (Global Network of the Committed). (G20 Action Plan on Marine Litter , 2017). Policies on marine litter prevention and promoting socio-economic benefits were ensured, which in turn also contributed to generating employment, sustainable fisheries, biodiversity, wastewater and water management. This has also emphasised the assessment based on risk and its impact and building a team (scientific experts and highly qualified technical staff) to assess the marine litter, for example, treatment centres to care for injured aquatic lives. Sustainable Waste Management was ensured in many different ways, including developing the infrastructure (e.g., establishing adequate ports, regular waste collection and investment in waste management to improve livelihood and the working condition, encouraging international cooperation among G20 countries for infrastructure investment and capacity development. Another major issue addressed was promoting effective stormwater management and wastewater treatment which has provided extended coverage of wastewater treatment by providing technological support to avoid solid waste in large amounts from entering other water bodies. The marine litter action plan has also provided an opportunity for the stakeholders and supported the PPP (Public Private Partnership) involved. Discussions related to G20 activities were held in the international forum like SDG 14 Conference, APEC, Our Oceans Conference, ASEAN, 6th International Marine Debris Conference and other side events of G20. (G20 Action Plan on Marine Litter, 2017)

Under the Presidency of Japan in 2019, G20 countries agreed to ensure healthy and sustainable ocean systems. The “Osaka Blue Ocean Vision”, an initiative under the presidency of Japan aims at reducing the additional pollution caused by marine plastics and achieving plastic-free oceans by 2050. The UN’s ESCAP (United Nations Economic and Social Commission for Asia and the Pacific has also stood by Japan’s new action regarding ocean concerns. Approximately eight million tonnes of plastic were released into the oceans from global economic activities, where 60% of the global plastic production is done by the Asia-Pacific. Without any appropriate measure to reduce the global plastic production that is released into the oceans, the marine environment becomes vulnerable and by 2025 the world’s ocean will consist of nearly 250 million tonnes of plastics. (Alisjahbana, 2019). To make the “Osaka Blue Ocean Vision” more effective, the Government of Japan has come up with another initiative called the “MARINE Initiative” to fight against marine litter. This MARINE Initiative follows four main objectives (1) Management of wastes, (2) Recovery of marine litter, (3) Innovation, and (4) Empowerment. Empowerment in developing countries to push waste management, innovation and recovery of marine litter has been the primary objective of the Japan under MARINE Initiative through appropriate policy measures. (1) International Cooperation including bilateral ODA (Official Development Assistance) and assistance through international organizations. This objective mainly focuses on capacity development and institutions which work on a legal framework for waste

collection/sorting and management and promote 3R (Reduce, Reuse and Recycle). Formulate action plans at the national level to address marine litter. To develop quality infrastructure facilities which include waste-to-energy plants and recycling facilities and to ensure training for 10,000 officials to engage in waste management by 2025. Also, to promote assistance for the member countries of ASEAN under the “ASEAN+3 Marine Plastics Debris Cooperative Action Initiative”. (2) International Operations by Japanese Companies, NGOs, and Local Governments helped in facilitating the infrastructure to treat waste and the Japanese chemical industry has supported international cooperation by industries to act effectively on plastic waste management, especially in countries in Asia. (3) Disseminating and sharing of best practices: for example, discussion among ASEAN countries on the issue paved way to the establishment of RKCMPD (Regional Knowledge Centre on Marine Plastic Debris) and also others through international conferences such Regional 3R Forum in Asia and the Pacific and United Nations Ocean Conference etc. (Japan, 2019). Along with plastic and waste management, the "Osaka Blue Ocean Vision" has also emphasised IUU (Illegal, Unreported, and Unregulated) fishing to make sure a safe marine environment, practice sustainable fisheries and avoid exploitation of marine resources including biodiversity (G20 Osaka Leaders' Declaration , 2019)

In 2020, under the Presidency of Saudi Arabia, many initiatives have taken place and also in its presidency ensured the continuous support to the existing initiative taken under another presidency. The Riyadh summit reaffirmed the strengthening of the terrestrial and marine environment in advance of the Conference of the Parties (COP 15) and the CBD (Convention on Biological Diversity). Another major initiative was Reducing Land Degradation and Enhancing the Conservation of Terrestrial Habitats through which land degradation to be avoided. This initiative was launched under the programme on the Global Coral Reef Research and Development Accelerator Platform to conserve the coral reef. The summit has assured that by 2040 world's 50% of the degraded land will be brought down. The Riyadh summit has reaffirmed its support for reducing the additional pollution caused by marine plastic litter which was articulated in Japan's Presidency under Osaka Blue Ocean Vision and also ensured its commitment to end IUU (Illegal, Unreported and Unregulated) fishing. (Riyadh summit, 2020). Saudi Arabia under its G20 Presidency introduced a concept with the efforts to control the carbon accumulation in the atmosphere that is CCE (Circular Carbon Economy). The concept of CCE mainly focuses on reducing the carbon content and increasing the value of the products, materials and processes. This can be achieved by cost minimization and waste basis through the 3Rs (Reduce, Reuse and Recycle) which could be the alternative way to the traditional linear economy which consists of make, use and dispose of (McDonough 2020). The CCE concept gives the idea of the role of carbon management by the 4th R to the 3Rs which is REMOVE. Addition of the objective Remove in the process will reduce the carbon content in the materials/products and disposal of these materials into the oceans will bring down the ocean water contamination also the direct removal of carbon from the atmosphere or through nature-based solutions such as mangrove trees helps in maintaining the healthy

and sustainable marine environment. By establishing the CCE Fund, the “Green Fund” structure can be reframed in carbon management (blue) technologies. (Brief, 2020)

In 2021, the G20 presidency was held by Italy, under which it reaffirmed the fight against IUU (Illegal Unreported and Unregulated) fishing in the sea. IUU fishing, which violates the law concern the fishermen by increasing unfair competition, cutting employment and profitability and most importantly, food security is affected especially in countries which mainly depends on seafood for their daily need. Formulation and the implementation of the best policies and regulations which are internationally recognized to fight against IUU fishing is the only key measure that can be adopted to eliminate this threat which is committed under Sustainable Development Goals 14. According to the OECD (Organization for Economic Co-operation and Development) survey of the report, Italy stood stronger than any other country in Authorization to operate outside the EEZ (Exclusive Economic Zone) where IUU fishing was found in the maximum number. Italy has supported international cooperation, and countries to engage in sharing global and regional information to fight against IUU fishing. (fisheries, 2021). Italy has enabled the electrification of the fishing centres present in the remote islands, which results in energy security, strengthens the small and local communities who practice fishing, and promotes the conservation of coastal habitats and marine resources for social, economic and ecological resilience. Italian presidency ensures the support for SIDS (Small Island Developed States) to access financial aid. The Italian Development Cooperation focuses more on collaboration with regional banks which helps in reducing the tension for SIDS and to support them financially to meet challenges due to extreme weather conditions and any natural disaster (like a tsunami, flood etc) that happens in the coastal region of the Small Island countries. social costs and unsustainable economic events, and vulnerable climate change are threatening the sustainability as well as the competitiveness of their economy. The involvement of regional banks in the action provides a better opportunity for the SIDS to improve the environmental, technological and socio-economic resilience of their economy. In addition, the Italian presidency reaffirmed the continuous support for Japan’s initiative called “Osaka Blue Ocean Vision” which has emphasised reducing marine litter (Political commitments, 2021)

This year, Indonesia is heading the presidency of the G20. Regarding the blue economy, Indonesia is one of the major countries which is very much concerned. The sustainable ocean and conservation of marine resources are part of Indonesia’s National Policy Indonesia’s Ocean Policy which includes the Indonesia Ocean Justice Initiative (IOJI) upholds sustainable ocean governance. The National Long-Term Development Plan (RPJPN) 2005-2025 confirms the direction of marine economic development and ensures its commitment to the sustainable use of the oceans. (G20 Presidency of Indonesia: Towards sustainable and equitable ocean economy, 2022) The Indonesia summit has promised its commitment to the G20 Global initiative to “Reducing Land Degradation and Enhancing Conservation of Terrestrial Habitats” which was initiated under the presidency of Saudi Arabia, in addition, Some G20 countries supported the idea of the conservation of at least 30% of the land and at least 30% of the world ocean

by 2030. It also emphasised the importance of SDG 14, conservation and sustainable use of ocean resources and reiterates another commitment to an already existing initiative that is to fight against Illegal, Unreported and Unregulated (IUU) fishing and imposed the prohibition of any kind of action that encourages the activities of IUU fishing. To carry out effective and special treatment for the developing countries and Least Developed Countries through the WTO agreement has been assured and insisted that the Least Developed Countries (LDC) must take part in the negotiations in line with SDG 14.6. A collaborative effort has been taken to treat the ocean climate action which also serves the idea of strengthening international cooperation through discussions and planning which in turn promotes more sustainable, inclusive, and resilient coastal ecosystem management. Affirmation of the improvement of the ocean observation G20 summit emphasised the data collection, data management, prediction, research and development have been made for a better understanding of the ocean-climate nexus. Indonesia has acknowledged the separate policies and strategies for integrated coastal zone management to avoid the impact of climate change in the coastal region. and the majority of the countries have agreed to an engagement with the UNFCCC (United Nations Framework Convention on Climate Change) to boost the ocean-based actions. In addition, the Indonesia presidency reaffirmed the continuous support for Japan's initiative called "Osaka Blue Ocean Vision" which has emphasised reducing marine litter. (Summary, 2022)

GREEN ECONOMY

The word "Green Economy" was introduced in the year 1989 report from the Government of the United Kingdom in which a group of environmental economists mentioned the chapter entitled Blueprint for the Green Economy. later in the years 1991 and 1994 again experts mentioned the first report named "Greening the world economy" and "Measuring Sustainable Development". In 2008, due to the financial crisis, UNEP (United Nations Environment Programme) introduced the idea of "green stimulus packages". In 2009, the United Nations made a statement at the United Nations Climate Change Conference supporting the green economy as a transformational tool. In 2010, the Head of the Delegation and the Ministers of the United Nations Environment Programme have acknowledged the declaration on the green economy stating that it "can significantly address current challenges and deliver economic development opportunities and multiple benefits for all nations". Later UNEP declared the concept of green should be used in the process for the United Nations Conference on Sustainable Development in 2012 (Rio+20).

There is no one single definition which defines the green economy, according to UNEP "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is a low carbon, resource-efficient, and socially inclusive" (UNEP, 2011). The Green Economy Coalition defines a green economy as "a resilient economy that provides a better quality of life for all within the ecological limits of the planet". (Green economy , 2016).

G20 AND THE GREEN ECONOMY

The concept of a green economy was first time introduced in G20 under the presidency of Australia in the year 2014. An initiative started in 2015 by introducing the Green Climate Fund (GCF) for which Australia approved its contribution and requested other countries, the private sector, and the private-sector-led economic growth in the Indo-Pacific region. In 2016, the G20 Green Finance Study Group was established to support the strategic goal of strong, balanced and sustainable growth under the G20. The Green Finance Group was set up mainly to reduce the stress on the economic cost caused due to pollution, depletion of natural resources and climate change. To meet environmental sustainability and substantial growth green finance flows on the global level have also been assured by the World Economic Forum (WEF), International Energy Agency (IEA) and Organisation for Economic Cooperation and Development (OECD). These organisations also directed the indicators required for the green finance investment which mainly includes infrastructure, construction, energy, water and waste. On the other hand, this Green Finance on investments provides benefits for the environment in a broader context, which means the environmental benefits include bringing down the pollution in the air, water and land, reduction of Green House Gases (GHG) emissions, increasing the energy efficiency by using natural resources and to avoid climate change. It has also created many employment opportunities through the industries and promoted technological innovation to boost green growth. Energy saving, green technology and environmental remediation are tended to be associated with high research and development (R&D) spending. It has also helped countries in international collaboration, The International Capital Markets Association (ICMA) has helped in coordinating the development of the Green Bond Principles that helped catalyse the rapid growth of the green bond market. Despite the use and advantages, there are factors which are challenging for Green Finance, and these challenges put limitations on its activities. Lack of clarity on the definition of green finance, information asymmetry and capacity constraints etc, which disrupt the activities among investors. In addition, since green finance has not fully grown up, Public-Private Partnerships (PPP) have been enjoying its benefits it. (G20 Green Finance Study Group, 2016)

In 2018, under the presidency of Italy, the issues related to sustainable finance have been discussed with the objective of the transformation toward green and sustainable economies. Italian presidency has supported the establishment of the G20 SFWG (Sustainable Finance Working Group) and prepared a roadmap for the G20 Sustainable Finance. This Roadmap has focused more on climate issues, it's a multi-year action-oriented document which is volunteer and flexible in nature. Further, the roadmap has expanded by covering many other issues including social matters, nature and biodiversity, and the other G20 members have also supported the mutual agreement for the next summit. The FSB (Financial Stability Board) was included to keep a check on the roadmap addressing the climate change and financial risk involved in it, which will also complement the SFWG (Sustainable Finance Working Group). The Italian presidency a programme called "International Financial Reporting Standards

Foundation” to develop global reporting standards and to build upon the task force of the Financial Stability Board (FSB) on Climate-Related Financial Disclosures outline and the work of sustainable standard setters. (G20 Rome Leaders' Declaration, 2021). The G20 Rome Leader’s Declaration has also insisted on the importance of consensus-based international standards to ensure the better inclusion of MSMEs (Micro, Small and Medium Enterprises) in the digital economy. The Importer and Exporter Code (IEC) and International Organization for Standardization (ISO) have developed a “Climate Action Kit”, a package which supports policymakers in their commitment to reducing net GHG (Green House Gases). The call to action was a part of the International Standards Summit for the People, Planet and Prosperity, held under the aegis of the Italian G20 Presidency. The three standards of development of organizations highlighted the powerful role that standards can play in facilitating recovery on all levels of sustainability. At the G20 Rome summit, the Importer and Exporter Code (IEC), International Organization for Standardization (ISO) and International Telecommunication Union (ITU) highlighted the opportunities that the pandemic has created regarding the digitalization of the G20 goals. Digital technology supported by international standards is a powerful solution to climate action and economic sustainability. (Dialogue, 2017)

Under the G20 Presidency of Indonesia, have discussed the issue related to Climate Mitigate in which many international organizations such as Intergovernmental Panel on Climate Change (IPCC), International Monetary Fund (IMF), and Organization for Economic Cooperation and Development (OECD) were present. The discussion started by sharing key takeaways from the SFWGLF (Sustainable Finance Working Group Levers Forum) discussion and proceeded in the direction to uphold and push the transition toward sustainable investments. The OECD (Organization for Economic Cooperation and Development) presented its ongoing research work on climate mitigation which includes the environmental, microplastics and fiscal effects of the coordination mechanism. The members have been joined by the International Monetary Fund (IMF) and International Panel on Climate Change (IPCC). The policies under process and the planned work which focus the financial stability, climate change the long-term economic growth were discussed and supported. The exchanges focused on climate-related policy levers -including the design of tailored policy mixes and energy transition mechanisms (e.g., Just Transition Partnerships) to promote an inclusive green economy transition. At the summit, the G20 leaders supported the participation of public and private capital in sustainable investments and the possible ways to enhance the climate change mitigation mechanism through which achieving clean energy is possible. Leaders stated that policymakers to bring the regulatory approach for the better catalyse market to achieve carbon neutrality or reduction of Green House Gas (GHG) emissions and implement the Paris Agreement and it goes hand in hand with the achievement of the 2030 Agenda. This discussion led a better way for the other G20 discussions on International Climate Action, particularly because it supports strengthening synergies with the global initiative such as the Coalition of Finance Ministers for Climate Action or the Climate Club. (Salinatri, 2022).

CONCLUSION

The concept of the blue economy has emerged as a new development paradigm, the sustainable use of marine or ocean resources is significantly boosting the countries' economic growth by increasing the GDP. G20 countries should consider the blue economy as a key factor to enhance economic growth, especially the SIDS countries. It is observed that the G20 countries have the potential to rise the significance of the Blue Economy, especially for the small island developing countries. In addition, Blue Economy also contributes to the use of clean and renewable energy which in turn helps in maintaining the balanced marine ecosystem across the region. Though G20 countries are taking many initiatives, the concept of the blue economy is not evenly addressed for every sector. The issues such as environmental protection, conservation of marine habitat, and addressing IUU fishing are constantly being addressed but gaps like technological advancement towards maintaining and regulating the actions are being untouched. This roadmap of the blue economy initiatives under G20 provides a greater opportunity for India under its G20 presidency to address the gaps and to improve the application of the Blue Economy.

REFERENCES

- The Global Goals (2016). *14 life below water*. san francisco:
- Alisjahbana, A. S. (2019). A call for healthy "Blue Ocean" in Asia and the Pacific . *ESCAP* .
- The World Bank. (2017). *what is blue economy*.
- *G20 Insights* . (2020, December 10). A carbon management system of innovation: Towards a circular carbon economy.
- Retrieved from MIISM. (2011). *centre for the blue economy* . california: MIISM.
- Hamburg: G20 Germany Declaration, (2017). *G20 Action Plan on Marine Litter*.
- Hamburg: G20 Germany Declaratio. (2017). *G20 Action Plan on Marine Litter* .
- T20 Dialogue (2017). *Sustainable Ocean Economy, Innovation and Growth* . Germany : G20 Insights .
- Regional Fisheries Organisations (2021). *Fisheries and Aquaculture in Italy*. *OECD*.
- Osaka : G20 2019 Japan (2019). *G20 Osaka Leaders' Declaration* .
- Indonesia: Indonesia Ocean Justice Initiative (2022). *G20 Presidency of Indonesia: Towards sustainable and equitable ocean economy*.
- P Ghosh (2022). sustainable development , *International Relations* (pp. 334-336). Delhi
- United Nations Conference. (2016). *Sustainable Development Goals: Green Economy*
- G20 Green Finance Study Group(2016). *G20 Green Finance Study Group*.
- *G20 2019 Japan* .(2019). JAPAN'S "MARINE INITIATIVE" TOWARD THE REALIZATION OF THE OSAKA BLUE OCEAN VISION.
- Green Fund Meeting (2021). G20 Rome Leaders' Declaration. *G20 Information Centre* . Rome: University of Toronto.
- S K Mohanty *Blue Economy: Enhancing the Growth and Sustainability*. Delhi: RIS.
- Political commitments, OECD (2021). How are development programmes systematically integrating climate and environment objectives post-COVID-19? *OECD*.

- Riyadh summit, (2020, November 21). G20 leaders' declaration. *G20 Information Centre*.
- Salinatri. (2022). G20 Finance Ministers and Central Bank Governors Meeting High-Level Discussion on Climate Mitigation. *G20 Indonesia*.
- united nations development program (2016). *Sustainable Development Goals integration*. san Fransisco :
- G20 Communique Summary (2022). *Joint Environment and Climate Ministers' Meeting*. Indonesia : G20 Indonesia .
- *United Nations in Western Europe*. (2022, march 13). Retrieved from United Nations.

