



POLICY BRIEF  
**G20'S ROLE IN MARINE  
BIODIVERSITY—POLICY  
OPTIONS AND BEST PRACTICES  
FOR ENHANCING MARINE  
PROTECTED AREAS (MPA)**



Task Force 2  
**CLIMATE CHANGE AND ENVIRONMENT**

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موجز السياسة  
دور مجموعة العشرين في التنوع  
البيولوجي البحري - خيارات السياسة  
وأفضل الممارسات لتعزيز مناطق  
المحميات البحرية

فريق العمل الثاني  
تغير المناخ والبيئة



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## ABSTRACT

Preservation and conservation of marine biodiversity is critical to ensure a healthier ocean and enhance ecosystem resilience. Marine protected areas are an effective tool to conserve marine biodiversity and ensure sustainable livelihoods for dependent populations. Some Group of Twenty (G20) countries have not yet reached the 10% target set by the 2020 Aichi biodiversity targets and the SDGs. By formulating a cooperative G20 marine biodiversity action plan, G20 countries will be able to achieve their national targets and international commitments. Addressing this is essential for the transboundary challenge of protecting marine biodiversity while accruing socio-economic benefits from the ocean.

يُعد الحفاظ على التنوع البيولوجي البحري والإبقاء عليه أمرًا في غاية الأهمية لضمان محيط أكثر صحة وتعزيز مرونة النظام البيئي. مناطق المحميات البحرية هي أداة فعّالة للحفاظ على التنوع البيولوجي البحري وضمان سُبل عيش مستدامة للسكان المعتمدين عليها. لا تزال بعض دول مجموعة العشرين مقصّرة في تحقيق هدف الـ 10% المحدّد بموجب أهداف آيتشي ٢٠٢٠ للتنوع البيولوجي وأهداف التنمية المستدامة. وبإمكان دول مجموعة العشرين تحقيق أهدافها الوطنية والتزاماتها الدولية بالنسبة إلى التنوع البيولوجي من خلال صياغة خطة عمل تعاونية للتنوع البيولوجي البحري بين دول مجموعة العشرين، وذلك لمعالجة تحديات التنوع البيولوجي البحري العابرة للحدود، مع تحقيق فوائد اجتماعية اقتصادية من المحيط.



## CHALLENGE

### Why does the Group of Twenty (G20) need enhanced cooperation on cooling?

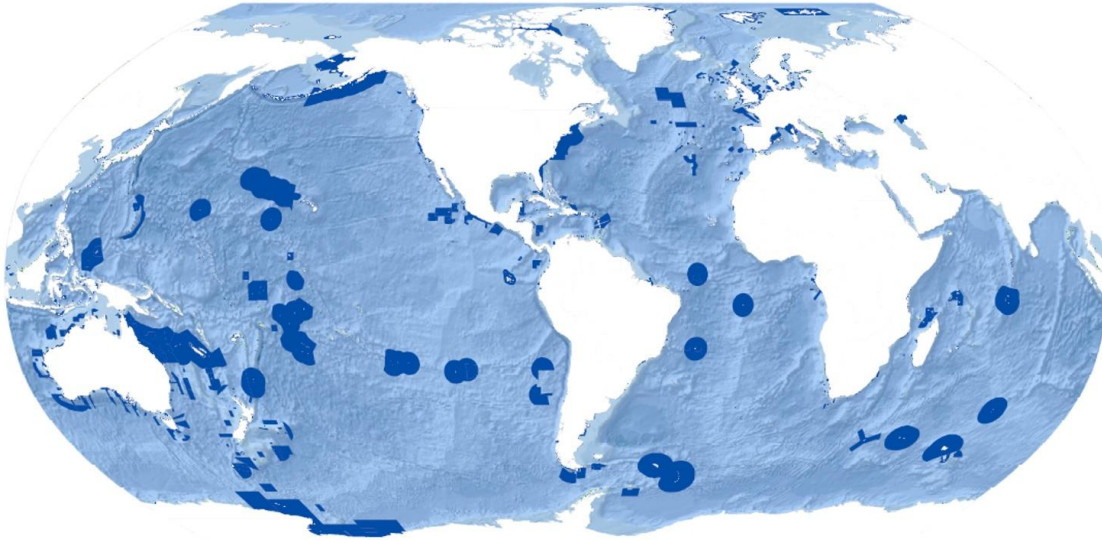
Collectively, Group of Twenty (G20) countries are yet to reach the 10% target set under the 2020 Aichi biodiversity targets and Sustainable Development Goals (SDGs). In 2000, marine protected areas (MPAs) in G20 countries comprised 4.2% of total marine areas under national jurisdiction protection. In recent years, this number has increased to 15.47%, as seen in Table 1 (UNEP-WCMC 2020). While G20 countries have made progress in this aspect, there is additional scope to create an integrated global network of MPAs within territorial waters as well as the areas beyond national jurisdiction (ABNJ) that support ecological connectivity and resilience to climate change. Due to well defined national laws, the coverage and formation of MPAs in national waters increased more noticeably from 2000 to 2020 (from 1.72% to 17.23%). In contrast, ABNJs have increased less noticeably (only 1.18%) due to ambiguity in international laws. Today, roughly 7.44% of the oceans are MPAs (UNEP-WCMC, 2020).

Serial Number	Country	% of MPA
1	Argentina	11.77
2	Australia	40.84
3	Brazil	26.82
4	Canada	3.13
5	China	5.48
6	European Union	12.40
7	France	49.83
8	Germany	45.38
9	India	0.17
10	Indonesia	3.06
11	Italy	9.74
12	Japan	8.23
13	Mexico	21.55
14	Republic of Korea	2.46
15	Russia	2.97
16	Saudi Arabia	2.49
17	South Africa	14.56
18	Turkey	0.11
19	United Kingdom	29.25
20	United States of America	19.16

Table 1. Percentage of MPAs in G20 countries

Source: UNEP-WCMC (2020). Protected Area Profile for the World Database of Protected Areas, June 2020. | Available at: [www.protectedplanet.net](http://www.protectedplanet.net); \* (Borge et al. 2019)

**CHALLENGE**



**Map depicting the world Marine Protected Areas (dark blue zones)**

Source: UNEP–WCMC and IUCN (2020)

Significant restrictions on MPAs are a strong mechanism to reduce the harmful effects of overfishing, industrial and extractive uses, such as drilling for oil and gas, which provides substantial benefits for biodiversity conservation. The creation of legal designations for MPAs are still in the first stage of development in G20 countries. Therefore, MPAs are only partially protected, and extractive activities continue to occur at differing degrees. Many of these MPAs lack efficient management and proper conservation measures to provide effective biodiversity protection. As per the SeaState G20 2018 report, only six G20 countries (the United Kingdom, the United States, Australia, Mexico, Brazil, and France) and the European Union, have fully protected more than 1% of their oceans (Marine Conservation Institute 2018). The remaining 13 countries protect less than 1% of their ocean areas. There is a notable trend among the G20 countries, especially in the UK, the US, France, and Brazil, of having many of their no-take reserves in their remote overseas territories rather than in their mainland (Marine Conservation Institute 2018). This is not a specifically negative trend, but increasing the share of MPAs in mainland areas would reduce environmental degradation, especially in marine areas closer to the source of pollution and increased human activities. Therefore, the majority of G20 countries that are signatories to related international agreements have yet to meet international marine conservation targets. G20 countries must fulfill their international agreements on marine conservation, including the Convention on Biological Diversity (CBD) Strategic Plan for Biodiversity, specifically,

## CHALLENGE

the biodiversity targets in Aichi Target 11 and the UN SDG 14. Both agreements state that by 2020, 10% of coastal and marine areas should be under active conservation by competent management focused on ecologically representative and well-connected protective systems.

The Protected Planet Report 2018 highlights the need for systematic reporting and repeat assessments regarding evaluating and monitoring MPAs (UNEP-WCMC, IUCN and NGS 2018). Many G20 countries must enhance their MPA coverage and develop cooperative frameworks for reports and evaluations that ensure data coherence and reduce imbalanced assessments. G20 countries possess the appropriate tools and mechanisms to address marine biodiversity challenges.



## PROPOSAL

### The Way Forward

In past meetings, G20 has examined marine biodiversity, marine pollution, and marine litter. These discussions and action plans can be subsumed as a single theme, “Preservation of Oceans,” which was highlighted in the G20 Saudi Arabia Presidency Agenda. As the CoP 26 and the Intergovernmental Conference on Biodiversity beyond national jurisdiction have been postponed due to the COVID-19 pandemic, the G20 is the only international group that has been consistently engaging and working towards the annual summit. By shifting the G20 discussions online, both at the working group and the leadership levels, the G20 would be on track with its negotiations. The G20 is also the appropriate platform to address marine biodiversity issues that need urgent attention, especially with the culmination of the UN Decade of Oceans from 2021. With global economic recovery as the priority for G20 nations, proposing implementable solutions to initiate blue recovery will be a critical milestone during uncertain times.

The G20 Implementation Framework for Actions on Marine Plastic Litter, 2019, focused only on pollution at sea; the Marine Biodiversity Action plan could provide an overarching policy pathway to address ocean health. Enhancing, preserving and conserving MPAs could be the first step of a G20 Marine Biodiversity action plan. The action plan proposes a joint effort to enhance marine biodiversity in areas of national and international jurisdiction of the G20 countries, focusing on two types of policy options: short- to medium-term actions with high impact and minimal cost (1–3 years), and medium- to long-term plans that require investment to achieve substantial results (3–5 years).

### Proposal I

#### **Ensuring marine biodiversity through MPAs: Leveraging existing agreements and promoting potential environmental and social services to augment MPAs**

The Marine Biodiversity action plan can reiterate the commitment of G20 countries to the existing agreements, goals, and targets that need to be achieved within the predetermined timelines. During the current pandemic, there is concern that pre-existing commitments may not be achieved due to uncertain economic and social conditions. A reiteration of commitments disseminates a strengthened resolve of G20 countries to work in the area of marine biodiversity.

#### **Priority I: (Short- to Medium-Term) Reiterating commitment to existing agreements**

In the short- to medium-term, G20 countries should follow the guidelines related to assessment, evaluation, and monitoring within the Convention on Biological Diversity’s (CBD) Programme of Work to create protected areas under Aichi Biodiversity Target 11.

By reiterating commitments and implementing agreements, countries can evaluate the current status of marine biodiversity conservation and MPA coverage within their purview. MPAs are a major form of nature-based solutions for climate change adaptation and mitigation. Implementation of Aichi Target 11 will contribute not only to the quantitative elements of SDG 14.5 (conservation of at least 10% of marine and coastal areas by 2020), but also the qualitative aspects of the MPAs. Considering them as “areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes” (Sian et al, 2018, 241) will result in a more systemic and comprehensive implementation of MPAs. To achieve the 10% spatial MPA target, many G20 countries with low MPA coverage should explore how their cooperation on existing agreements can be strengthened, such as the designation of particularly sensitive sea areas under the International Maritime Organization, designation of area of particular environmental interest by the International Seabed Authority, and protection of vulnerable marine ecosystems under the Regional Fisheries Management Organizations. Countries can also examine and assess other effective area-based conservation measures (OECM) sites that can potentially enhance well-connected MPA networks (Diz et al 2018). Many G20 countries are already involved in similar arrangements, ensuring the ease of implementation.

Community engagement is essential for the successful implementation of MPAs. The 2019 G20 marine litter framework could be adopted and implemented in the existing MPAs of all countries. A regular coordinated clean-up of floating debris and waste in the existing G20 MPAs should be made mandatory, and must include regular monitoring. Community-led waste management initiatives, such as creating an Ocean Waste Bank for depositing old, abandoned and unusable fishing nets or other floating debris in exchange for monetary payments or access to sustainable fishing technology, should be encouraged. The Waste Bank could be formulated as a blue recovery solution to help coastal communities in the current COVID-affected economic situation.

### **Priority 2: Building medium- to long-term strategies for marine biodiversity**

Since 2011, CBD has facilitated the assessment of ecologically or biologically significant marine areas (EBSAs) in the global oceans through a series of regional workshops. To date, detailed descriptions of 321 EBSAs covering all ocean basins and every type of marine ecosystem have been generated. A total of 181 EBSA sites have



been assessed within individual national jurisdictions while 67 cover more than one national jurisdiction. Another 33 EBSA sites are located in the ABNJs, while 38 are trans-boundary, incorporating one or more national jurisdictions and ABNJs (Dunn et al 2019). This provides an opportunity for cooperation among G20 countries.

The Marine Biodiversity action plan could be the first step toward formulating a treaty-based engagement between G20 countries. Though this cannot be contained within the short-term goals, the action plan could establish the foundation for such an initiative. The G20 should explore the option of setting up an effective convention for action on MPAs in the high seas, similar to the Convention for the Protection of the Marine Environment of the North-East Atlantic and the Convention for the Conservation of Antarctic Marine Living Resources. Further, G20 countries could initiate an internal dialogue that would determine mechanisms to support negotiation for the legally binding instrument on the conservation and sustainable use of marine biodiversity in ABNJs which is currently being discussed. This instrument was initiated in 2015 by UNGA after two years of intensive deliberations “on the scope, parameters and feasibility of an international instrument under the Convention” (IUCN 2015).

Promoting environmental and social services for long term conservation initiatives  
An effective conservation management plan for designated MPA areas that considers both marine habitats and species is essential. The designated MPAs could function as a network to increase climate resilience and enable conservation-based economic opportunities, especially during the current pandemic. Effective MPA management is based on an integrated approach which can have long-term social, ecological, and economic sustainability (Day et al. 2015; Díaz et al. 2019). Sites for well-connected, effectively managed MPAs together with OECMs, are important tools for the adaptation and mitigation of climate change. Protecting coastal ecosystems, such mangroves, tidal marshes, and seagrass meadows, can account for half of the sequestered carbon stored in marine sediments.

MPAs could foster greater emphasis on tools for fisheries management within the ecosystem framework. Effectively managed MPAs aid in achieving healthy marine ecosystems, and sustainable fisheries would reduce poverty and increase food security, making this an essential aspect of MPA management (Marine Management Organization 2019). At the national and regional level, best practices for aligning conservation incentives with the objective of benefit sharing can be discussed and adopted by G20 countries (Peterman 2002).

## Proposal II

### Accelerating finance and private sector engagement

The majority of financing for biodiversity is derived from domestic and international public finance. Even within public finance, the funding proportion for oceans is far lower than the requirement. Additionally, private sector investment in SDG 14 has not been estimated and, according to UN SDG commitment Report 100 (2016-17), Goal 14 is ranked one of the lowest in terms of priority. Most of the commitments made at the UN Ocean Conference are by national governments. In recent years, multilateral banks have been playing a crucial role in financing climate and SDG goal initiatives with oceans emerging as a recent area of investment. To implement Proposal I, the policy options provided in Proposal II would be essential to generate the required funds through existing sources, engaging multiple stakeholders, and formulating a medium-term strategy.

### Priority 1 (Short- to Medium-Term)

The World Bank introduced blue bonds as an innovative financing mechanism for aiding sustainable blue economy initiatives. In 2018, Seychelles was the first country to implement them (World Bank 2018). G20 countries could collectively focus on leveraging blue bonds or initiating similar innovative financing mechanisms in the short-term to address the urgent need to continue ocean conservation efforts. Such financing mechanisms would allow G20 countries to pursue a blue agenda amidst the impact of COVID-19. Additionally, these mechanisms would prove useful to address the immediate financing concerns of SDG14 and CBD targets.

Private investments must be fostered for the extended management of MPAs. Conservation-based tourism and adoption of certain pockets in MPA areas for conservation by private stakeholders, along with the levy of environmental fees on entry into the MPA could be further explored by the G20. Active community involvement and provision of monetary benefits through conservation efforts will enhance the effectiveness of existing MPAs, reduce government costs, and ensure a holistic approach to MPA management. In the current economic situation, accentuating the role of private stakeholders and communities in MPA management would significantly increase income while protecting biodiversity.

### **Priority 2 (Medium- to Long-Term)**

To address marine biodiversity challenges, G20 countries could focus on establishing an Oceans Fund that is similar to the Green Climate Fund. The Oceans Fund could accelerate cooperation among G20 countries to preserve marine biodiversity and ocean health. It could also provide financial benefits for establishment of MPAs, increase the climate resilience of oceans, and raise awareness and engage with coastal communities. A pool of funds to provide targeted financial recovery measures to those in need and to reduce implementation delays is imperative during the COVID-19 pandemic period. Such a fund could be utilized during similar situations to reduce economic shocks to ocean-based economies.

### **Proposal III**

#### **Encapsulating science, knowledge sharing, and capacity building**

The UN has marked 2021–2030 as the decade of the oceans, with specific focus on enhancing the science-policy interface. The emphasis is designed to ensure that policy decisions are based on scientific assessments. The UNDESA Report 2017 on in-depth analyses of ocean conference voluntary commitments highlights that “it is necessary to ensure that efforts to increase scientific knowledge, capacity building, and technology transfer (target 14.a) focus on those regions and countries that need it most. This is also the case for capacity building relating to ocean acidification research (target 14.3)” (Vierros and Buonomo 2017, 6).

According to the Global Ocean Science Report compiled by UNESCO’s Intergovernmental Oceanographic Commission in 2017, ocean sciences are led by a small group of industrialized countries. Many of these countries are also home to specialized institutions and have a large number of researchers working in this field. The majority of these countries are part of the G20 grouping. In 98 countries, 784 marine stations are maintained and 325 research vessels are currently in operation. Of these, 60% belong to the Russian Federation, the US, and Japan. China, the US, Germany, France, Italy, Korea, Australia, and India all have large numbers of ocean science researchers and personnel (IOC-UNESCO 2017). As the financing of ocean sciences is expensive, the majority of the G20 countries also have dedicated ocean science budgets, highlighting the importance of oceans in the G20 economic framework. For instance, ARGO is an international collaboration between 20 countries, many of which are G20 nations, using profiling floats to observe temperature, salinity, current, and other ocean parameters.

Proposal III would be essential to establishing an ongoing, informed dialogue on marine biodiversity, examining ways to enhance marine biodiversity and MPAs, and assessing the appropriate financing mechanisms for marine biodiversity conservation and preservation. Both recommendations provided in the proposal are the least cost intensive and have high impact value.

**Priority 1 (Short- to Medium-Term)**

To further develop the action plan, the G20 should formulate a technical and scientific committee that would engage in knowledge sharing, where technological cooperation should be envisaged as a priority. This committee could engage with existing international programs like ARGO, Antarctic Cooperation, and Arctic Council. It could also have representation from major international bodies, civil societies, think tanks, private research consortiums, and coastal communities to explore holistic solutions for a healthy ocean, including marine biodiversity challenges. Regular technical meetings among G20 MPA managers should be organized to enhance knowledge sharing and capacity building. One key highlight of the committee could be to establish stronger links between the T20 and S20 engagement groups for jointly working on the preservation of ocean ecosystems as a means to strengthen science-policy interface

**Priority 2 (Medium- to Long-term)**

Regular monitoring is a crucial factor for successful MPA management, and countries need dedicated financial resources along with adequate knowledge, equipment, and infrastructure to implement it (Cronin and Holmes 2018). Lack of adequate implementation and strong monitoring can severely compromise the ecological performance of MPAs. Managing large and remote areas is a challenge and G20 countries could share technological tools to enhance data collection and engage in cooperative monitoring on biodiversity changes, conduct joint patrolling to curb illegal activities, aid capacity building for effective implementation, and create a basket of appropriate shared technologies and tools. With many G20 countries already engaging in ocean science research, an integrated G20 effort would further strengthen the research and development in ocean sciences, maximize benefits, and enable appropriate utilization of funds.

## Conclusion

Recognizing the preservation of oceans as a priority area by the current G20 presidency would reiterate the significance of marine biodiversity. Past presidencies have also focused on ocean preservation and conservation, and this commitment must be strengthened in the future in order to initiate implementable solutions. G20 countries lead in ocean science and research, and a majority of them have dedicated funding and targeted national policies in place. Hence, their role in marine biodiversity is unequivocal. The short- to medium-term priorities in the proposed action plan can be implemented quickly with a mutually agreed-upon framework. The medium- to long-term goals are priorities that are necessary, but would require concentrated efforts and significant investment from G20 nations. Both sets of priorities must be embedded in the action plan to set a course of action for the next decade. With a majority of G20 countries mainstreaming ocean-based blue economy strategies into their economic agenda, the role of protected areas would be critical to maintaining ocean health. A sustainable ocean would be the principal determinant of a booming blue economy. MPAs could provide the necessary conservation and protection sphere for enhancing marine biodiversity, and in turn, enhance economic opportunities from ocean resources.

## Key Recommendations

This policy paper proposes the adoption of the G20 Marine Biodiversity action plan to augment ocean health by protecting, conserving, and preserving marine biodiversity. The majority of G20 countries have developed national agendas and dedicated budgets for ocean sciences and research, which reiterates the need for G20 countries to increase their role in marine biodiversity. The action plan proposes the following key recommendations:

- G20 countries should ensure marine biodiversity through MPAs by leveraging existing agreements and promoting potential environmental and social services. G20 countries must support international initiatives such as the Intergovernmental Conference on Biodiversity beyond their national jurisdiction. Adopting existing best practices in the establishment and management of MPAs is critical for a successful G20 action plan. Additionally, MPA and marine biodiversity efforts must recognize the strong role of communities. Focus should be directed on environmental and social services that could promote marine biodiversity while ensuring livelihoods.

- Public funds have been the major source of financing for improving ocean health. G20 countries should proactively engage with multilateral banks and private stakeholders to seek investments and develop innovative financing mechanisms that focus on multi stakeholder participation such as Blue Bonds by the World Bank. G20 countries could formulate an Oceans Fund similar to the Green Climate Fund to further strengthen the adoption of the action plan.
- A majority of the G20 countries have dedicated funding and national planning for ocean science research. Hence, a formal Standing G20 Technical and Scientific Committee, as well as a linked task force between T20 and S20 for oceans and marine biodiversity, would be an appropriate step to bridge the science-policy interface and to strengthen scientific assessments that are crucial for climate mitigation, adaptation, and for ensuring the preservation of the oceans.

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**Disclaimer**

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