BLUE MARINE FOUNDATION

NAVIGATING CHANGE

THE ROLE OF CLIMATE-SMART MPAS IN ACHIEVING 30X30

BGERMC

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EXECUTIVE SUMMARY

Since the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF) in 2022, there has been a rapid mobilisation of effort aiming to achieve 23 ambitious targets. This includes the "30x30" goal to conserve 30 per cent of land and ocean by 2030. However, significant progress is needed with currently only eight per cent of the ocean under some form of protection. Simultaneously, efforts to keep global warming to 1.5ºC are falling short, as highlighted by the first Global Stocktake in 2023, with inadequate action to limit and transition away from fossil fuels, and to deliver an equitable finance goal for vulnerable nations, demonstrated most recently at COP29 in Baku. As such, we are facing an intertwined ecological crisis.

Considering the immense impact of climate change on the ocean, we need to consider strategies to 'future-proof' our efforts to achieve the 30x30 target. This demands close collaboration between policymakers, scientists and resource managers to anticipate and address the impacts of climate change on marine ecosystems and species. One consideration is designing and implementing climate-smart marine protected areas (MPAs), as well as assessing how sites already designated can help buffer the worst effects of climate change. MPAs have been identified as a crucial method in helping marine ecosystems adapt to some of the impacts of climate change, such as acidification, sea-level rise, species distribution shifts and oxygen availability.[1] Conservation benefits are likely to be the greatest in fully protected areas, where all destructive and extractive activities are removed. On average, this level of protection can increase total fish biomass by over 600 per cent relative to unprotected areas.[2] By integrating climate resilience into their design and management, climate-smart MPAs are part of the strategy for ensuring long-term protection, particularly in regions where climate impacts are most severe.

Non-state actors, such as NGOs and academic institutions, have a role to play in helping to support governments achieve their 30x30 ambitions on the ground. Where possible, this support should include the consideration of climate-smart planning, design and application to strengthen existing MPA networks and strategically designate new areas that consider future-emission scenarios. However, it is not always clear on how to integrate climate change considerations or at what stage. This report provides a deep-dive into the concept of climate-smart MPAs and aims to be a foundational guide for stakeholders wishing to integrate this thinking into their day-to-day work. This report covers the following key areas:

- The latest supporting science and research, which demonstrates how climate change including marine heatwaves are impacting ecosystems and species in numerous ways such as changing migratory patterns. The design and placement of climate-smart MPAs should integrate climate change mitigation, adaptation and resilience, which will further help to deliver lasting conservation benefits. It is important to safeguard climate-resilient habitats and regions from human interference while adopting certain strategies such as allowing for flexible boundaries to accommodate climate-driven shifts in species distributions.
- Global examples of climate-smart MPA planning and tools; as well as concepts for application both in the High Seas via the BBNJ Agreement and within coastal waters.
- It also stresses the involvement and leadership of Indigenous Peoples and Local Communities, as well as vital need for sufficient, long-term funding sources.

In addition, strong political will and a show of strength is vital if the world is to correct course and deliver on the global goals agreed upon. One of the key outcomes of the Convention on Biological Diversity (CBD) COP16 in Cali was the need to integrate climate and biodiversity policies to effectively meet the targets of the GBF and the Paris Agreement. Climate-smart MPAs are just one of the many ocean solutions that are nature-positive and can help deliver this integration. Their ability to be 'future-proofed' - designed with foresight to consider shifting distribution and evolving conditions can help promote the 30x30 effort and act as an impetus for rapid, ambitious action for protecting our ocean.

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1. INTRODUCTION

The vast blue expanse of our planet's ocean may hold a key to our climate's future. As global temperatures rise and ecosystems falter, the ocean stands as a silent giant, absorbing almost 30 per cent of carbon emissions[3] and providing food for over three billion people annually[4]. Yet, this marine powerhouse is under threat from climate change in a myriad of ways. Rising temperatures are driving changes in ocean conditions, impacting marine biodiversity, ecosystem structure and vital functions that support planetary health. Rapid warming is taking place in parallel to a multitude of other effects, including oxygen depletion and increased acidification. Human activity has devastated marine ecosystems and unsustainable fishing practices have led to an estimated 37.7 per cent of fish stocks being overfished[5]. Climate impacts on marine ecosystems are expected to increase in the 21st century under the existing globally pledged actions to mitigate greenhouse gas emissions indicating a gap in our common will to limit climate change impacts.

Recent studies have also projected that climate change could reduce ecological connectivity within marine protected areas (MPAs) by 50 per cent, impeding the recovery of vulnerable species[6]. Extensive scientific evidence demonstrates that marine species - from tiny invertebrates to large mammals and seabirds - are rapidly shifting their habitats in response to changing ocean conditions. These species are migrating tens to hundreds of kilometres per decade, seeking environments that match their survival needs as their traditional habitats become less hospitable[7]. Species' range shifts are causing local species loss and novel occurrences of species, altering ecological interactions and food webs.

Hope emerged in 2022 with the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF) under the Convention of Biological Diversity[8] (CBD), the most significant global environmental framework since the 2015 Paris Agreement's, under the UN Framework Convention on Climate Change (UNFCCC). The Paris Agreements overarching goal is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels[9]. The CBD mandate covers all life on Earth, making no distinction between land and ocean; albeit that marine and coastal biodiversity have historically received less focus than terrestrial biodiversity. The GBF is a global commitment that sets out an ambitious pathway to reach the vision of a world living in harmony with nature by 2050; and the recognition of the ocean within its targets[10] highlights the importance of ocean-based solutions in reaching this goal. The CBD stresses the need to address the causes of biodiversity loss and GBF Target 8 (T8) Climate Action highlights the impact of climate change on biodiversity and the need to build resilience. Furthermore MPAs are increasingly recognised as ocean-based climate solutions. GBF T3 on Conservation is to ensure that by 2030 at least 30 per cent of land and ocean is conserved or managed through equitable government systems of protected areas and OECMs - commonly referred to as the "30x30" target. As countries strive to achieve the 30x30 target, it is vital to integrate climate change considerations into marine protection strategies. In parallel, in the second round of Nationally Determined Contributions (NDCs), under the UNFCCC, 47 countries included MPAs and other effective area-based conservation measures (OECMs) as mitigation and adaptation[11].

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"At the same time that space for nature is being defined, climate change will be moving nature around[12]."

HANNAH AND MIDGLEY, 2023

Therefore it is critical that global efforts to reach the 30x30 target are guided by our current understanding of climate change, with a focus on supporting nations and ocean regions most vulnerable to future impacts. Within this context, the concept of 'climate-smart MPAs' has emerged as a key tool to integrate climate resilience and adaptation into the design and management of MPAs, with the aim to safeguard biodiversity in the face of a rapidly changing climate. Over the past four years, several publications have expanded on this approach and illustrated its importance. This has included outlining the value of identifying and protecting climate change refugia and 'bright spots'; the creation of guidelines for how to design climate-smart MPAs that are transboundary; and the provision of recommendations for how to integrate climate change into MPA design based on knowledge exchange sessions from the Fifth International Marine Protected Areas Congress (IMPAC5)[13,14,15].

This work has set a comprehensive and exciting foundation for MPA managers, decision makers, NGOs and other key actors to implement climate-smart concepts into new and existing MPAs. To help drive forward this momentum, this report acts as an additional resource for key MPA stakeholders that are navigating how best to integrate climate change considerations into their work. It also underscores the importance of bolstering the 30x30 target by including climate resilience and adaption, and that climate-smart MPAs can act as critical impetus for accelerated rates of effective protection and international collaboration.

This report will (1) outline the latest scientific thinking around climate-smart MPAs, (2) demonstrate that climate change mitigation, adaptation and resilience must be integrated into the design, placement and financing of MPAs to ensure they are 'future-proof' and capable of delivering lasting conservation benefits. Finally, it will (3) emphasise the importance of securing sustainable funding and working with local communities to achieve effective management and explores how these principles can be applied to the High Seas. Where possible, case studies and real-world examples have been provided to catalyse replicable projects elsewhere.

2. THE 30X30 TARGET: MPAS UNDER THE GLOBAL BIODIVERSITY FRAMEWORK

MPAs are increasingly recognised as valuable tools facilitating climate change adaptation for biodiversity and ecosystem services and contributing to global biodiversity targets, such as the UN's Sustainable Development Goal (SDG) 14, Life Below Water, and Goal 13, Climate Action. Well managed MPAs can help alleviate non-climate stressors, such as overfishing and habitat degradation, which in turn can promote biodiversity and ecosystem resilience[16]. These MPAs have demonstrable benefits, including increases in biomass and diversity across species, habitats and ecological communities[17]. These benefits may at times persist even after, or despite, climate-driven disturbance, by reducing other causes of mortality (e.g. fishing) in wild species populations, highlighting the role of MPA[18] strategies[19]. However, MPAs where species and habitat sensitivity to climate change have not been considered may not be able to provide the highest levels of resilience and benefits against climate-induced stressors.

2.1. STATE OF PLAY ON WHERE WE ARE AGAINST THE 30X30 TARGET

To understand how best to integrate climate change considerations into MPA strategies, it is crucial to assess the current state of global ocean conservation efforts. This involves recognising the pace at which nations must deliver tangible, effective contributions to protect marine environments. Incorporating climate change into MPA planning should be seen as an opportunity, not a hindrance, to meet conservation targets. Climate-smart MPAs offer the added value of enhancing community and ecosystem resilience, ensuring that conservation efforts are both effective and enduring in the medium and long term.

The currently reported level of global marine protection is likely an overestimation of progress towards the 30x30 target. Just over eight per cent of ocean area is reported to be protected, with less than three per cent fully or highly protected and likely to deliver biodiversity benefits[20], an increase of only half a per cent since the adoption of the GBF in 2022[21]. Despite increasing attention on 30x30, current progress against declared global targets has been slow and the progress achieved is unevenly distributed across geographies and ecosystems. Area-based targets have incentivised countries with large distant ocean areas in their national jurisdictions to establish large MPAs to reach these goals. Many of these locations host large EEZ areas relative to land area, remain relatively undisturbed from exploitative economic activities and often have low levels of industrial use of their EEZs by local people[22]. The reality is that, in many cases, this has resulted in strong designation in remote areas hosting relatively small local communities. Where local communities do exist, they may have limited political influence compared to political lobbying bodies in the global north.

In national domestic waters, where maritime activity is generally busier and there is more intensive industrial use, challenges include a lack of sustained political will needed to create MPAs due to multiple stakeholders, many of whom have differing vested interests, financial or other. Yet it can be argued that while remote oceanic regions are important for protecting relatively pristine ecosystems, focusing protection efforts near developed areas with current or potential industrial activity could more effectively advance 30x30 goals by restoring habitats and species.

Thus, nearly 90 per cent of protected ocean coverage comes from just the 100 largest MPAs, predominantly located in remote overseas territories and isolated regions. This has resulted in a concentration of protected areas in the Indo-Pacific region[23]. However, as the majority of the 'low hanging fruit' (large-scale remote) MPAs have already been designated, future progress toward protection targets must now focus on more populated and heavily used ocean areas. These new regions present different challenges, involving more diverse stakeholder groups and requiring more extensive negotiation and compromise to achieve conservation goals that must allow for ecosystem restoration. Such restoration of coastal ecosystems (e.g. seagrass and saltmarsh) must be combined with other activities such as leaving the seabed free of physical abrasion such that an increased biomass and diversity of life can persist and deliver additional co-benefits, such as sequestering carbon. This will require extensive areas closed to all forms of bottom towed fishing.

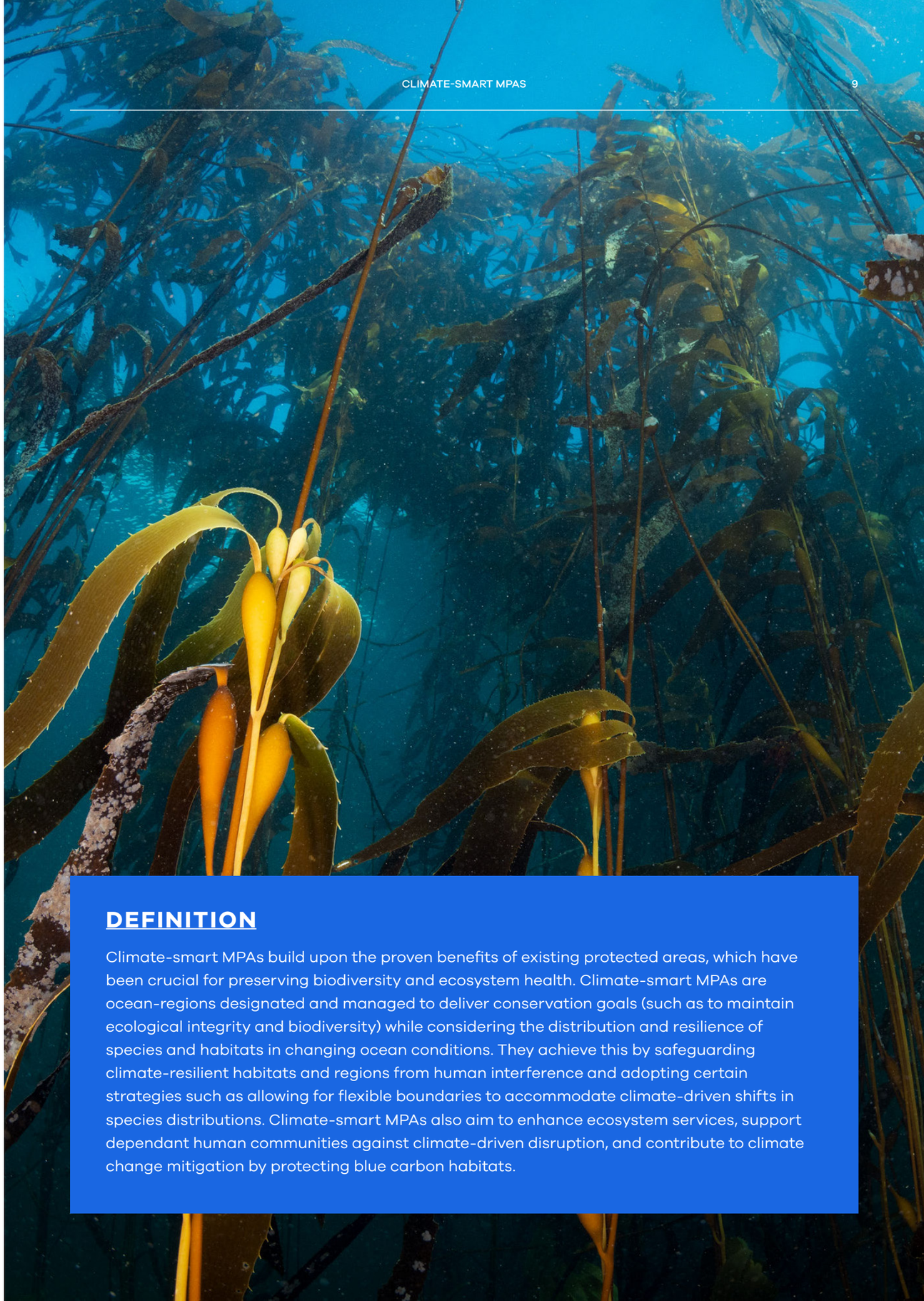
3.CLIMATE-SMART MPAS – A TOOL FOR ADDRESSING OCEAN CLIMATE CHANGE

Target 8 of the GBF aims to minimise the impacts of climate change on biodiversity and build resilience within ecosystems. This target references the use of nature-based solutions and/or ecosystem-based approaches as adaptation and disaster risk reduction actions. It also calls on the need to minimise any negative impacts while maximising synergies with climate-related actions[25].

For the scope of this report, we focus on MPAs as area-based conservation measures where human activities are restricted for the purpose of limiting impacts on species and habitats of high conservation value (used as designation features) in a given area. Such areas may include key habitats where species or species assemblages of interest may occur (e.g. coral reefs, temperate reefs) or they may be areas of interest to a particular life stage or behaviour of one or many species of conservation value (e.g. kelp habitats serving as nursery areas for other species). In many instances, more than one site is designated in a region, forming a connected MPA network that operates synergistically and coherently to deliver conservation goals that cannot be achieved within one site alone (e.g. to protect more species and habitats from human activity than can be achieved individually; to protect multiple areas across a region; to protect specific life stages or behaviours of multiple species of interest, such as nursery areas, migrating routes or feeding grounds). MPAs are designed specifically towards the delivery of outcomes for nature, including improving biodiversity, though other aspects such as the social and cultural value of marine species and habitats is increasingly considered in the choice of sites.

Therefore, planning for MPAs can be a part of, or distinct from, broader Marine Spatial Planning (MSP) processes. MSP is a public process of documenting, and making decisions about how to allocate, marine space for human activities. In contrast to MPA planning, MSP is a multiple-objective and multiple-sector process, serving ecological, economic and social goals, overarched by a political process. In practice, the institutions responsible for both processes are not necessarily the same, though it is possible that MPAs can become designated as part of a zoning component of MSPs and other spatial management mechanisms, such as Integrated Coastal Zone Management.

IN MANY INSTANCES, MORE THAN ONE SITE IS DESIGNATED IN A REGION, FORMING A CONNECTED MPA NETWORK THAT OPERATES SYNERGISTICALLY AND COHERENTLY TO DELIVER CONSERVATION GOALS THAT CANNOT BE ACHIEVED WITHIN ONE SITE ALONE.



DEFINITION

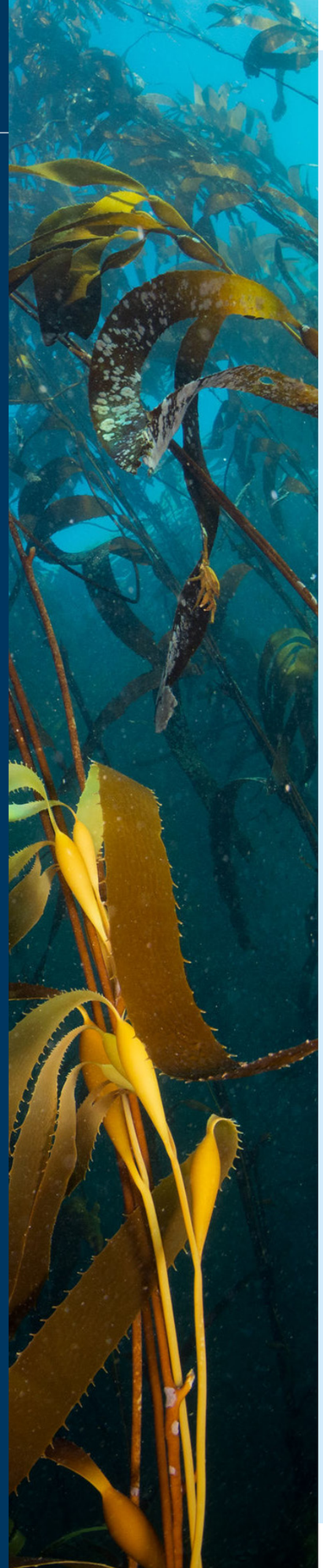
Climate-smart MPAs build upon the proven benefits of existing protected areas, which have been crucial for preserving biodiversity and ecosystem health. Climate-smart MPAs are ocean-regions designated and managed to deliver conservation goals (such as to maintain ecological integrity and biodiversity) while considering the distribution and resilience of species and habitats in changing ocean conditions. They achieve this by safeguarding climate-resilient habitats and regions from human interference and adopting certain strategies such as allowing for flexible boundaries to accommodate climate-driven shifts in species distributions. Climate-smart MPAs also aim to enhance ecosystem services, support dependant human communities against climate-driven disruption, and contribute to climate change mitigation by protecting blue carbon habitats.

Climate-driven changes in the ocean present clear obstacles for effective marine conservation: currently, MPAs are most often static, while species and habitats are shifting their distributions in response to changing ocean conditions. As species move beyond MPA boundaries, we need to ensure the design of MPAs and networks are able to maintain conservation goals. It is important to note that even as species compositions change, MPAs will continue to provide refuge for adaptation and serve as valuable scientific reference sites. As we evolve our conservation strategies, we must build upon the significant ecological and management benefits that existing MPAs have long provided.

For management measures to be effective under future emissions scenarios and deliver future-proof protection[26], however they need to reflect the new ecosystem conditions that are emerging. This will ensure they continue to deliver ecologically representative area-based conservation by protecting climate change refugia[27,28]. As climate change shifts oceanic conditions, complementary adaptive approaches are emerging and aim to accommodate species movement while building upon the established benefits of existing protected areas. Thus, climate-smart MPAs are expected to support the persistence of wild marine species populations, communities, habitats and ecosystems[29] in space and time, as species distributions shift as a result of climate change (i.e. dynamic ocean planning). These strategies also involve considering the vertical extent of habitats to support species moving to deeper waters[30].

Additionally, new climate-smart MPAs and MPA networks should prioritise maintaining future connectivity between existing protected sites and source populations, considering species' dispersal patterns across different life stages (for example, protecting both the spawning grounds and larval settlement areas of coral reef fish species that may shift with changing ocean temperatures). There is also growing interest in designating climate-smart MPAs to protect blue carbon habitats which include vegetated coastal ecosystems (mangroves, salt marshes, and seagrasses), muddy seafloor regions and kelp forests. These habitats efficiently capture and store atmospheric carbon dioxide in plant biomass and sediments over long periods[31,32,33]. By protecting these ecosystems, climate-smart MPAs not only preserve biodiversity but also bolster nature-based solutions to climate change, making them a vital component of comprehensive marine conservation and climate mitigation strategies.

By considering ocean changes within national climate and biodiversity strategies, we can use climate-smart MPAs as adaptation and mitigation tools as we begin to anticipate and accommodate the changes in biodiversity, we are likely to see as ocean conditions.



3.1 DESIGNING CLIMATE-SMART MPAS

Empirical and modelling evidence from MPAs and MPA networks, such as those in Baja California, the Pacific coast of Canada, the UK, and the Western Indian Ocean, suggests that climate-adaptive approaches can provide significant conservation benefits[34,35,36,37] . Climate-smart MPA design can be informed by a range of numerical tools and models that account for climate change, oceanography, ecology, ecosystem services, and economics, allowing for the exploration of the benefits and costs of different spatial configurations for MPAs. These tools become even more powerful when combined with participatory approaches that facilitate the co-development of MPA designs and plans with stakeholders, rights-holders and knowledge-holders[38]. The study and discussion about climate-smart MPAs is further enhanced by methods such as scenario planning and visioning, which help stakeholders envision future outcomes and challenges, as well as helping develop focused solutions. The packaging of such tools into decision support systems that are tailored and accessible to the specific governance of MPAs in a given region is a key step towards enabling climate-smart MPA design and implementation.

Moreover, research has increasingly demonstrated the importance of active engagement and co-planning with indigenous peoples and local communities (IPLCs) in the development and management of climate-smart MPAs. Indigenous communities have lived in and stewarded coastal and marine ecosystems for millennia, accumulating a deep understanding of local species, ecological processes and sustainable resource management. Their traditional socio-ecological knowledge offers critical insights into the complexities of marine environments, and how marine ecosystems are responding to climate change. This insight can then be used to mitigate these impacts. Engaging early and appropriately with IPLCs is therefore essential to safeguard their existing way of life or

RESEARCH HAS INCREASINGLY DEMONSTRATED THE IMPORTANCE OF ACTIVE ENGAGEMENT AND CO-PLANNING WITH INDIGENOUS PEOPLES AND LOCAL COMMUNITIES IN THE DEVELOPMENT AND MANAGEMENT OF CLIMATE-SMART MPAS.

provide alternative livelihoods when new MPAs are established. This is particularly important for communities that rely on coastal and marine environments, as they are especially vulnerable to the impacts of climate change[39]. Such engagement plays a critical role in supporting their long-term subsistence and resilience.

While planning tools[40] are well-established in some regions, particularly in the Global North, many Global South nations face significant data gaps, making it difficult to implement such approaches effectively. In addition to data shortages, there is often a mismatch between the scale of available data and the demand for finer-scale planning and zoning development (at the regional or city level), complicating efforts to develop highly localised conservation strategies. However, by integrating traditional and local knowledge, particularly in regions with limited data availability or mismatched data scales, climate-smart MPA planning can help bridge these gaps, ensuring that protected areas are both adaptive and resilient.

3.2 PLANNING FOR CLIMATE-SMART MPAS

To plan for climate-smart MPAs, it is important to account for critical biophysical and governance considerations that can help MPAs to achieve their environmental and socio-economic objectives under a changing climate. These considerations can be generalised in eight guiding principles:

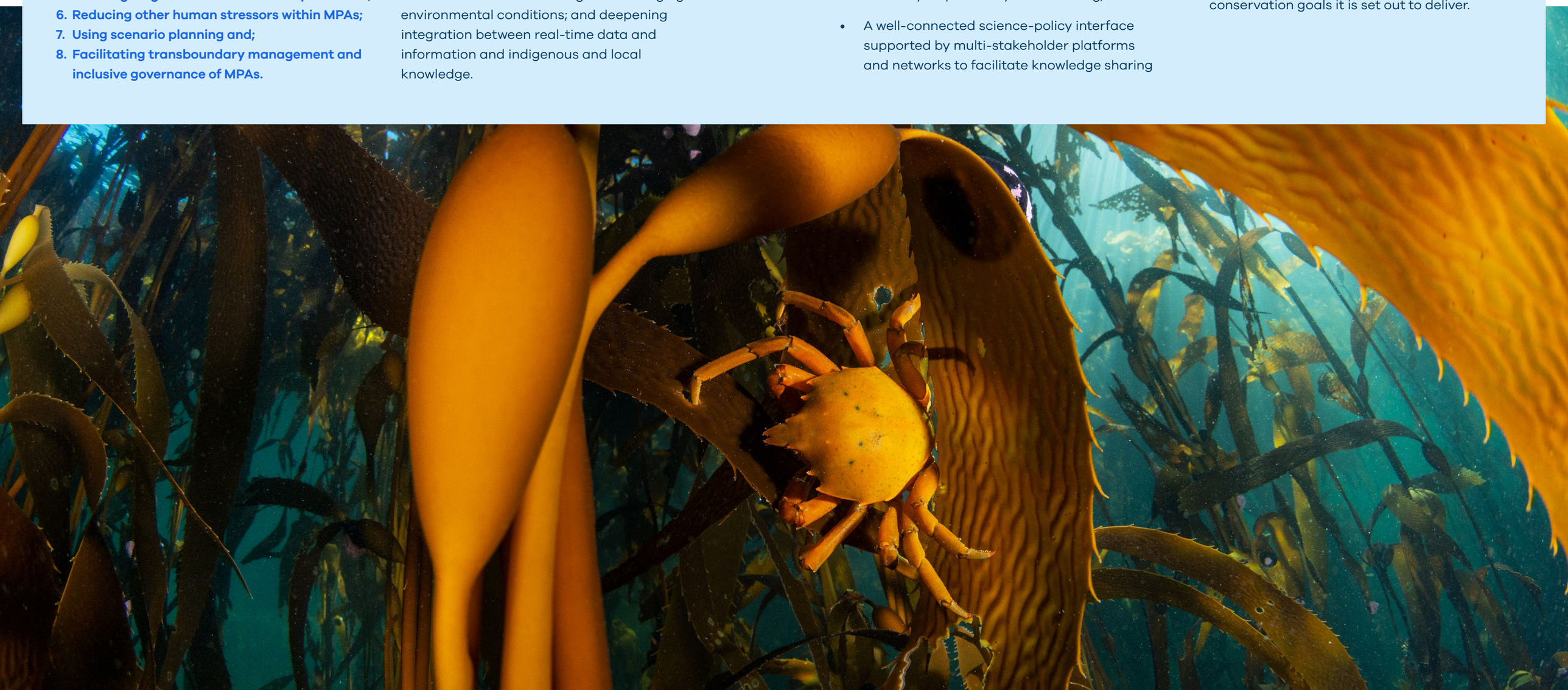
1. **Ensuring habitat representation and replication;**
2. **Incorporating ecological connectivity[41];**
3. **The protection of climate refugia[42];**
4. **Climate-adaptive management and flexibility[43];**
5. **Ensuring long-term commitment to protection;**
6. **Reducing other human stressors within MPAs;**
7. **Using scenario planning and;**
8. **Facilitating transboundary management and inclusive governance of MPAs.**

Operationalising these principles requires more ambitious MPA policies and inclusive planning processes that are supported by biophysical and socio-economic data, and data from wild capture activities and other marine-related sectors.

This should be combined with indigenous and local knowledge. Such policies can include: setting large areas for MPAs; developing adaptive management strategies that can be reactive to new knowledge and changing environmental conditions; and deepening integration between real-time data and information and indigenous and local knowledge.

Long-term planning is also needed to ensure that sufficient funding, capacity-building and technological resources are available to monitor and manage MPAs in response to climate change impacts. For this process to be effective, practical elements of MPA governance (nationally and internationally) usually require additional resources. These often include:

- The strengthening of ocean-climate literacy within government agencies that have statutory responsibility for MPA siting;
- A well-connected science-policy interface supported by multi-stakeholder platforms and networks to facilitate knowledge sharing and to help fill data gaps across science, policy, industry, private sector and adjacent communities;
- The provision of appropriate decision-support tools to promote the integration of this diverse knowledge into established decision-making chains;
- Monitoring efforts that have appropriate and cost-effective indicator frameworks to help determine if a site is delivering on the conservation goals it is set out to deliver.



IN THE UNITED KINGDOM, THERE IS GROWING MOMENTUM TO INCLUDE CLIMATE CHANGE EVIDENCE IN THE DEVELOPMENT OF OCEAN AND COASTAL POLICY, INCLUDING FOR THE SITING OF MPA NETWORKS

CASE STUDY

THE PATH TO CLIMATE-SMART MPAS IN THE UK

It is recognised that a well-connected science-policy interface will be key to deliver increased ocean-climate literacy as well as tailored decision support tools that will enable governments to implement climate-smart MPAs. In the United Kingdom (UK), there is growing momentum to include climate change evidence in the development of ocean and coastal policy, including for the siting of MPA networks[44,45]. While this ambition has been enshrined in UK policy for some time[46], the integration of climate change evidence into the decision-making chains leading to the siting of MPAs has been slow. This is largely because the MPA network was built between about 2000 and 2019 before application of 'climate smart' criteria in site selection. Renewed momentum to help close this gap has come through a call for co-delivered research projects, whereby the UK marine research community is being directly funded to engage with policy departments, to help develop capability within the policy community to address challenges such as climate change. Funded through strategic allocation of government resources to the Sustainable Management of UK Marine Resources Programme, co-delivered and transdisciplinary ocean research within the MSPACE project is now helping government agencies across the UK nations to establish climate-smart MPAs.

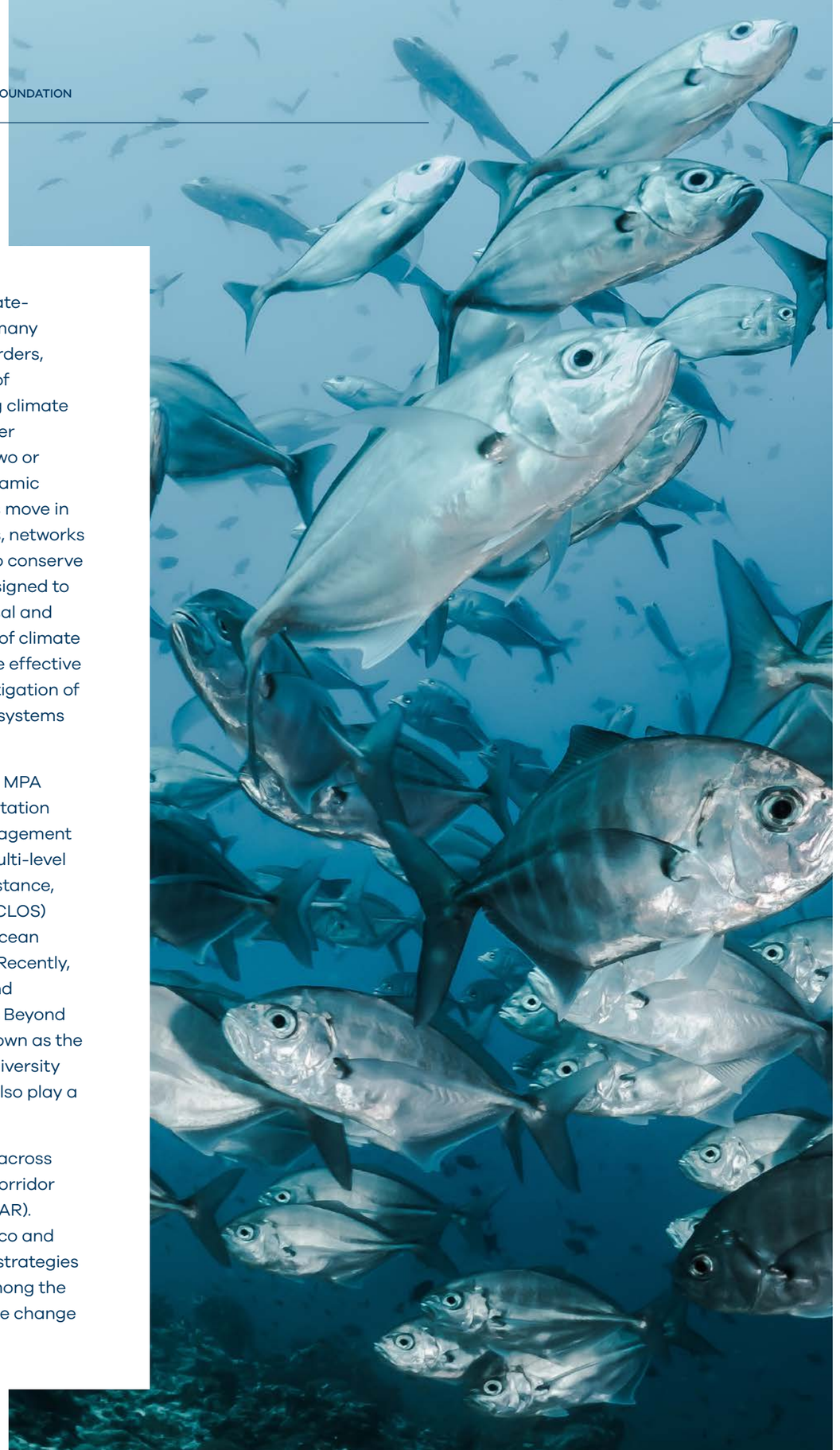
This work has improved accessibility to UK marine climate change modelling evidence and fit-for-purpose analyses, creating data products that can easily be used within relevant decision-making chains leading to MPA designation, as well as to the allocation of space to other marine uses more broadly (i.e. marine planning). The latter consideration is vital to deliver climate-smart MPAs: an ocean ever busier with human activities and a growing need for renewable energy will leave less and less space to help wildlife and natural habitats cope with marine climate change pressures. Tailored data products helping to resolve these challenges emerging from MSPACE include an Early Warning System, mapping the location of climate change refugia for key groups of species and habitats of high conservation value, an assessment of the climate-resilience of the UK MPA network, and opportunities for siting new climate-resilient MPAs given the current distribution of human activities in the UK seas[47]. These co-delivered products are now being incorporated into decision making chains, as new marine conservation policy and other spatial management mechanisms are being designed. There is therefore hope that marine conservation in the UK may help deliver on a climate-smart 30x30 target into the future. NGOs will have a vital role to play, by continuing to raise public awareness and that of governments on the need to deliver that ambition.

3.3 TRANSBOUNDARY PROTECTION MEASURES

Transboundary marine protection is important in climate-smart MPA planning because of the shared nature of many marine species and ecosystems that span national borders, and because (except for ocean depth) the movement of marine species and habitats in response to a changing climate is not limited by geographical barriers. More than 90 per cent of the marine species of the world cross at least two or more jurisdictions, thus requiring coordinated and dynamic conservation efforts for their protection[48,49]. As species move in response to climate-driven changing ocean conditions, networks of MPAs that are transboundary in nature will be key to conserve biodiversity; particularly if these MPA networks are designed to facilitate ecological connectivity such as larval dispersal and species distribution shifts, and towards the protection of climate refugia. Such MPAs will also be required to enable more effective conservation of oceanic carbon stores towards the mitigation of climate change, as important carbon flows across ecosystems begin to be more widely recognised[50].

Effective transboundary and climate-smart MPAs and MPA networks will require coordinated policy and implementation across jurisdictions, such as bi- or multi- national management strategies. These policies should be built on existing multi-level governance frameworks and policy landscapes. For instance, United Nations Convention on the Law of the Sea' (UNCLOS) provides the global foundational legal framework for ocean governance, while the GBF provides the 30x30 target. Recently, the Agreement under UNCLOS on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (the BBNJ Agreement, or also known as the High Seas Treaty) was establish to protect marine biodiversity in areas beyond national jurisdiction (ANBJ). This will also play a key role in facilitating transboundary cooperation.

Regionally, examples of transboundary MPA networks across international jurisdictions include the California MPA corridor and the Eastern Tropical Pacific Marine Corridor (CEMAR). Through CEMAR, Colombia, Costa Rica, Ecuador, Mexico and Panama coordinate scientific research, management strategies and conservation goals for all MPAs in the network. Among the network's main goals is to plan for the effects of climate change with a series of studies currently ongoing.



MORE THAN

90%

OF THE MARINE SPECIES OF THE WORLD CROSS AT LEAST TWO OR MORE JURISDICTIONS

Unlike CEMAR, the California corridor which connects a series of MPAs from Baja California (Mexico) to California (US) has no current coordination on the management and implementation of the MPAs. Yet, several guidelines have been proposed for designing climate-smart transboundary protected areas that could be adopted for regions where a network already exists[51]. Such approaches are likely to be facilitated by broader international momentum for transboundary alignment of MSPs towards the delivery of climate change targets.

Transboundary cooperation may be essential for a broad-scale climate-smart MPA rollout, but it is also likely to present substantial challenges. Planning and implementation at the transboundary level is often stifled by additional jurisdictional conflicts, differing national interests, resistance from some private sectors and the complexity of involving multiple stakeholders. At the national and local level, national agencies, multiple-stakeholder networks and local governments will be essential to ensure the political will, resources and an appropriate governance structure are in place to ensure climate-smart MPA delivery.

Successful cases of international cooperation for resource management exist, such as the CEMAR and the Parties to the Naru Agreement (PNA) that manage the largest skipjack tuna fishery of the world with implementations to address changes in range size. Examples of international collaboration toward transboundary coordination also exists for conservation. For instance, the Inter-American Convention for the Protection and Conservation of Sea Turtles (“IAC”), through which 16 American nations have collaborated for over 20 years on promoting the protection, conservation and recovery of the populations of sea turtles and those habitats on which they depend. This is done based on the best available data and taking into consideration the environmental, socioeconomic and cultural characteristics of the Parties. These examples may serve as bright spots for how momentum may build and deliver 30x30 in a climate-smart way.

3.4 FINANCE

The investment case for climate-smart MPAs starts with ocean economics. Integration of large-scale MPAs, are key to long term ocean resilience and delivering the best economic outcomes for nature and people, for ocean health and human health[52]. Integrating sufficient and durable financial considerations into the design of marine management from the start is key to deliver these outcomes and ensuring long-term effective management of 30×30 targets and MPAs[53].

Effective and dynamic management measures can lead to better outcomes at lower costs, both for regulators and ocean users like fisheries and aquaculture. Gear modifications to avoid by-catch, better routing and temporal closures can reduce costs of human activities, facilitate recovery of fish stocks and provide long-term benefits. Operators may be concerned by short-term limitations and costs of such changes, but these are significantly outweighed by benefits over time.

Once a climate-smart MPA network is designed, then the focus should turn to appropriate allocation of funding for long-term day to day operational costs to support the delivery of a management plan that is based on appropriate metrics[54]. This will help build a database that will include information on the different ecosystem services provided and the natural capital value derived of these areas, allowing managers and funders to make informed decisions around the MPA management. This approach enables proactive planning for future adjustments based on evolving climate conditions. This will not only provide required monitoring, verification and continuous scientific validation but also serve to deliver operational efficiencies and other cost-effective solutions to ocean users.

An appropriate finance framework for the 30x30 protection goal requires a systems-led approach underpinned by aligned principles[55], consider within broader ocean governance structures. Ocean governance. A collaborative and adaptive approach is essential to ensure that countries have sufficient and durable funding to effectively implement their 30x30 commitments.

Funding for implementation can be found from a variety of sources, including but not limited to public sources, user payments and external support. A diverse financial portfolio can help manage risks and ensures adequate investment[56]. In future this may include new private finance flows such as blue carbon[57] and high integrity marine biodiversity credits, reflecting progress in the assessment of blue natural capital and the development of appropriate high-quality jurisdictional approaches. By positioning climate-smart MPAs at the heart of the sustainable and the regenerative blue economy narrative, new sources of finance that are SDG-aligned[58] can be accessed[59]. For example, developing and financing climate-smart MPAs could help countries align with T19 of the GBF that aims to mobilise USD $200 billion by 2030 through public and private sources including through 'optimizing co-benefits and synergies of finance targeting the biodiversity and climate crises'[60].

Integrating these measures into comprehensive blue data infrastructure approaches[61], which provides ecosystem information and builds investor confidence[62], can help attract finance from the capital markets, for instance in the form of blue bonds[63]. International development finance institutions are particularly well-positioned to help facilitate such transactions and raise private capital in the process[64].

Additionally, as blended finance concepts mature in the ocean space[65] they offer additional scope to combine grants and commercial finance to help catalyse transactions. The Global Fund for Coral Reefs[66] is one such example. It combines significant grant funding with private finance and uses technical assistance and risk mitigation tools to facilitate transactions that aim to protect these key ecosystems.

Photo Ocean image bank, MattCurnock

INTERNATIONAL PUBLIC FINANCE

Many of the highest value potential sites for climate-smart MPAs are in the Developing World. All countries defined as low- and middle-income based on their gross national income (GNI)[67], and Least Developed Countries[68] are eligible to receive public finance from 32 donor countries[69]. There are presently 141 countries or Territories[70] around the world eligible for international aid funding, including most of the last megadiverse places left in the world.

Under T19 of the GBF, donor countries and other parties have agreed to provide USD $20 billion a year to protect nature in the developing world by 2025, and USD $30 billion a year by 2030. 81 per cent of this funding currently comes from public sources. 11 per cent is from philanthropy and 8 per cent from private sources[71]. There is currently ten times more funding available from public sources than private for nature conservation in the developing world. Given most private sector nature financing initiatives are voluntary rather than mandated by governments, we should not expect these proportions to change any time soon.

The latest OECD update on progress against the 2025 target reports that USD $15.4 billion had been committed to protect nature in the developing world by 2022 (the most recent reporting year)[72]. This money will be distributed bilaterally through donor countries' aid budgets and multilaterally via institutional granters like the Global Environment Facility (GEF)[73].

The challenge for donors and recipients alike is to keep administrative and reporting requirements sufficiently light to allow access to these funds by parties with limited bureaucratic capacity, such as IPLCs, while also maintaining appropriate levels of transparency and accountability. Successful examples of organisations reducing these barriers to access public funding include the Legacy Landscapes Fund[74] and the Community Land Rights and Conservation Finance Initiative (CLARIFI)[75]. NGOs have a key role to play in supporting and building potential projects in the developing world with the resources necessary to successfully apply and report to these bilateral and multilateral public funds.

£500m

THE UK HAS A £500 MILLION BLUE PLANET FUND

4. APPLICATION OF CLIMATE-SMART MPAS IN DIFFERENT CONTEXTS

It is essential when thinking about the planning and design of climate-smart MPAs that their application is considered within different contexts. One area where climate-smart thinking will be critical is within ABNJ. Under the GBF these are referenced under numerous targets including: GBF T3 on Protection, GBF T13 on Increasing Benefits, GBF T21 on Participation and GBF T23 on Gender Equality.

4.1. THE HIGH SEAS TREATY & THE OPPORTUNITY FOR CLIMATE-SMART MPAS

As the third implementing agreement under UNCLOS, the BBNJ Agreement, will (subject to ratification) join a key group of policy mechanisms for the marine environment, including the CBD and the UNFCCC. There has been an increased emphasis on the importance of alignment of effort across the UN conventions[76], which will now need to include the BBNJ Agreement and its associated scientific and technical bodies.

One of the four main pillars of the BBNJ Agreement is the use of area-based management tools (ABMT) including MPAs. While principles of climate-smart MPA design are beginning to be taken up in the shaping of MPA and OECMs policies and governance at the national level[77], the BBNJ Agreement offers an early opportunity to set direction for climate-smart conservation in the high-seas. Indeed, the text of the BBNJ Agreement recognises climate-change as a key driver of biodiversity loss and degradation of marine ecosystems, as well as being part of cumulative pressures placed on the ocean by human activities. Thus, the Agreement calls for a general approach to deliver on its objectives that includes improving ecosystem resilience to climate change (i.e. adaptation), as well as recognising the vital role the ocean plays in global carbon cycling and in regulating the global climate system (i.e. mitigation).

Therefore, the BBNJ Agreement provides a clear framework to support the ambition of the 30x30 target in a way that incorporates climate-smart ABMT that can deliver climate change adaptation and mitigation. While the drive for a climate-smart approach has taken a long time to be recognised in the CBD delivery, the BBNJ Agreement, by design, is a major stimulus for ocean-based climate-smart conservation[78].

THE BBNJ AGREEMENT RECOGNISES THE NEED FOR CLIMATE-SMART AREA-BASED MANAGEMENT TOOLS, SUCH AS CLIMATE-SMART MPAS

AS SPECIES MOVE IN RESPONSE TO CLIMATE-DRIVEN CHANGING OCEAN CONDITIONS, NETWORKS OF MPAS THAT ARE TRANSBOUNDARY IN NATURE WILL BE KEY TO CONSERVE BIODIVERSITY

Photo Ocean image bank, Kimberly Jeffries

FINANCING THE IMPLEMENTATION OF THE BBNJ AGREEMENT:

The financial mechanisms established under the BBNJ Agreement will play a vital role in ensuring the success of the Agreement[79], aiming to provide adequate and predictable financial resources for its implementation[80]. Technological innovation to support capacity-building and the transfer of marine technology will be key to supporting implementation[81]. The Special Fund under Art.52 of the Agreement could be at the vanguard of financing this[82]. It is set to offer adequate, accessible, additional and predictable financial resources, supported through a mobilisation goal for 2030. This will be key to building a robust network of connected, climate-smart MPAs in the high seas.

INTER-INSTITUTIONAL LINKAGES WITH THE BBNJ AGREEMENT

International cooperation, coordination and knowledge-sharing will be essential for enabling the effective implementation of ABMT activities under the BBNJ Agreement[83]. In addition, capacity building and the transfer of marine technology (CBTMT) are also key pillars of the BBNJ Agreement, which is reflected in Challenge 9 of the UN Decade of Ocean Science for Sustainable Development, and SDG Target 14.c (implement and enforce international sea law). The CBD has been in force for over 30 years, providing crucial opportunities for learnings in terms of international cooperation and shared communities of practice. Prioritising co-delivery of benefits through CBTMT between the CBD and BBNJ will be pivotal. Actions to support this include the analysis of National Biodiversity Strategy and Action Plans (NBSAPs submission was due by CBD COP16 in October 2024) and the formation of a committee to oversee the implementation of CBTMT provisions and submit reports and recommendations to the BBNJ COP. The CBTMT committee can also ensure the voices of scientists from developing states and traditional knowledge holders are represented and heard. These actions may help to deliver climate-smart MPAs through the BBNJ Agreement, although additional efforts are likely to be needed.

The main CBTMT link between the CBD and BBNJ toward climate-smart MPAs may come though how climate change evidence will be considered in the definition of Ecologically or Biologically Significant Marine Areas (EBSAs). This will require clear pathways to transfer lessons from national implementation of GBF T8 of the CBD's GBF to the BBNJ, with its additional jurisdictional challenges. It will also require the leveraging of mechanisms and processes to maximise resource allocation toward knowledge gathering and sharing, and implementation that includes ocean climate change evidence. The CBD secretariat has already begun identifying opportunities by which to collaborate with the BBNJ Agreement through a summary document that outlines work undertaken in the CBD to describe EBSAs, develop ABMT and other conservation measures[84].

The CBD also includes the Sustainable Oceans Initiative (SOI), which provides a strategic framework through which to catalyse partnerships, build on lessons learned and knowledge gained and facilitate improved coordination. The SOI recognises that failures to meet previous global conservation goals are largely due to a lack of investment in the human aspect of capacity building. Supporting actions, such as national capacity-building workshops[85], are already being utilised to look at links to MPAs in ABNJ in the light of pressures, including climate change. Reemphasising focus on these actions may create important routes to ensure the BBNJ Agreement is implemented in a climate-smart way.

In addition, the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Platform on Biodiversity and Ecosystem Services[86] (IPBES) provide scientific evidence that helps drive international ocean policy. Both bodies recognise climate change as a key threat to ocean biodiversity and ecosystems. The BBNJ Agreement's interactions with the IPCC and IPBES provides an opportunity to further consolidate integrated ocean biodiversity and climate data, and an aligned use of this evidence across the UN landscape. For example, implementation of high seas MPAs is expected to draw on lessons from the EBSA process of the CBD, but there are gaps in knowledge related to issues such as ecological connectivity and ecosystem service provision among others, and how these issues are affected by climate change. Better alignment of the evidence gathering mechanisms across the climate and biodiversity conventions and the IPCC and IPBES will be key to addressing these gaps, promote cooperation, and remove a siloed approach to the delivery of the UN conventions and the BBNJ Agreement.

The need for focus on tangible actions, on identifying what and where capacity building is needed, and how their progress will be measured and assessed, will be key milestones towards a successful integration of the BBNJ climate goals. Maximising opportunities to align evidence gathering and establish synergistic processes between these Treaties will be essential[87]. These should be priority steps towards the delivery of climate goals of the BBNJ Agreement.

4.2 APPROACHES, STRATEGIES AND MECHANISMS TO EMPOWER COMMUNITIES AND BALANCE CONSERVATION AND COMMUNITY NEEDS

It is crucial that while developing marine protection strategies conservation objectives are balanced with the needs of local communities. This is a complex challenge that requires a holistic approach that considers environmental and socioeconomic factors. Ensuring inclusive and equitable participation, grounded in human rights-based approaches, will ensure that IPLCs rights and interests will be safeguarded into the future.

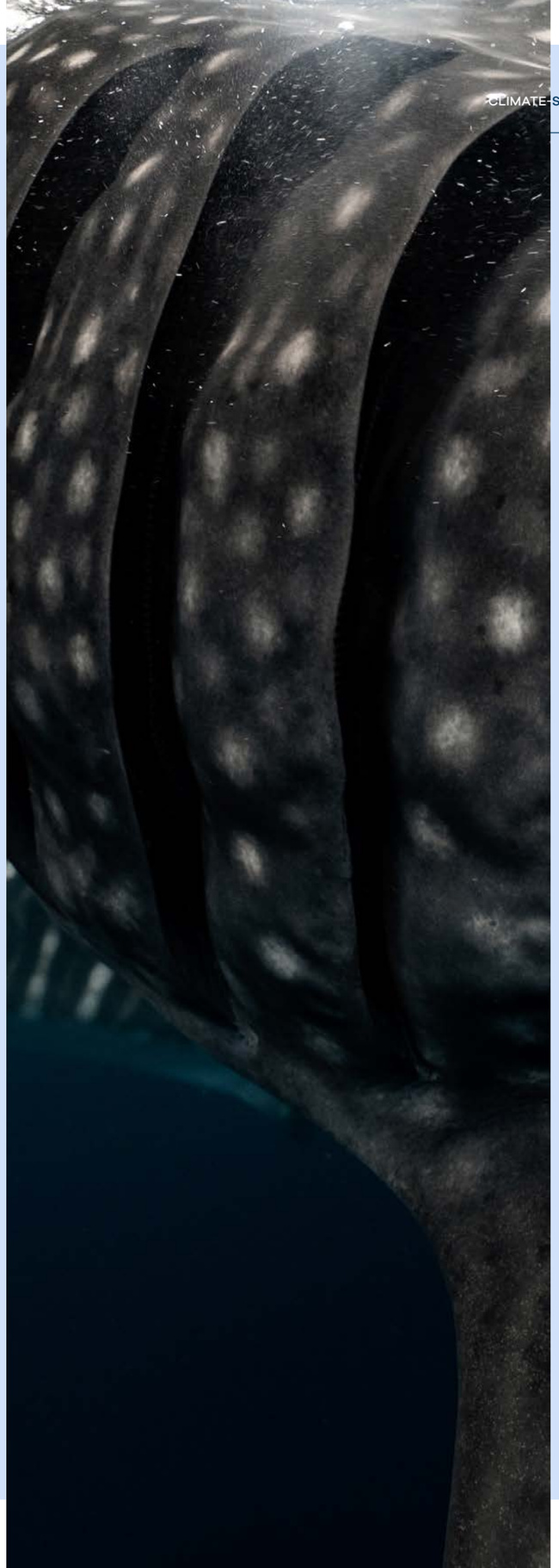
THE PHILIPPINES – AN EXAMPLE OF COMMUNITY-BASED APPROACHES

In the Philippines, millions rely on the rich marine resources for their livelihoods and cultural practices, playing a vital role in the economy and food security. However, these ecosystems and marine biodiversity are threatened by destructive fishing and tourism practices, illegal fishing and trading, overfishing, pollution and climate change.

Most of the traditional community livelihood practices are highly dependent on extracting wildlife. Coastal communities have long-standing traditions of fishing and resource management that are passed down through generations; with fishing ingrained in the social and cultural framework of communities. These practices are often tied to local beliefs, rituals, social structure and community identity. For example, in an Indigenous community in Tagbunsain estuary, Palawan women practice "pangawil (pole and line)" a traditional form of resource utilisation that reflects and blends cultural heritage with sustainable fishery[88].

The Department of Environment and Natural Resources (DENR) reported that, as of 2013, MPAs in the Philippines covered approximately 1.38 million hectares, accounting for 0.63 per cent of the country's total marine area[89]. However, more recent assessments indicate that MPAs now encompass an estimated 31,400 km^2 (3.14 million hectares) of Philippine waters[90,91]. Additionally, the Philippine MPA Database continues to update and validate data on locally managed MPAs. As of 2024, the database records an indicative area of approximately 15,807 km^2 under local management, signifying a growing commitment to marine conservation efforts[92].

Initiatives on habitat protection, such as MPAs, can conflict with the economic welfare and cultural practices of local communities, leading to tensions. Approaches that blend the needs of IPLCs while achieving positive goals for nature need to be utilised to safeguard the welfare of communities often most vulnerable to climate change.



COMMUNITY-BASED APPROACH TO COASTAL MANAGEMENT

This approach considers the concerns of the community, through the planning, implementation, monitoring and management of conservation initiatives. For example, the traditional “pangawil” practice in the Tagbunsain estuary was explicitly incorporated into the estuary management plan. It helps ensure that conservation measures align with the community’s needs and cultural practices, empowering them to take ownership of such initiatives. Another approach is co-management which fosters arrangements between government agencies, local communities and other stakeholders, helping to balance conservation, livelihood and sustenance needs. Local MPAs are mainly co-managed by the community/stakeholders and the local government in varying degrees of management roles, resulting in more effective outcomes. These participatory, integrated and multi-sector approaches prove viable and accepted in coastal management, leading to a community-based approach being implemented nationwide, with MPAs co-managed by local communities focused on balancing conservation with community needs.

To help deploy and promote such approaches the following mechanisms can be used:

PARTICIPATORY PLANNING AND CAPACITY BUILDING

- **Education at multi-stakeholder levels:** Providing education and training to local stakeholders can enhance the skills and knowledge that will encourage support for conservation efforts. Empowering local communities and government officials to actively participate in the planning, implementation and monitoring processes of conservation programs. Well-informed local communities will know the on-the-ground realities of the MPA and can recommend adaptive management.

BIODIVERSITY AND CLIMATE CHANGE

- **MPA Positioning:** Initiatives to position new MPAs in identified refuge or areas with the least climate change impact are in progress. Larger MPAs that contain more diverse ecosystems (seagrass, coral, mangroves) are being considered. This has been discussed in seminars/workshops in Palawan. Closer monitoring of MPAs located within impact areas will also be required; this could be a reference for adaptive zoning.
- **Closed Seasons:** Seasonal closures during breeding periods can help sustain fish populations, like the closing periods of scads and sardines in Palawan and Zamboanga, respectively.
- **MPA Networks:** Working collectively to ensure the protection of species, populations and habitats which may not be achieved by a single MPA. A network of marine reserves is known to increase local catches[93] and can strategically enhance the resilience of ecosystems to climate change.

ALTERNATIVE LIVELIHOODS AND INCORPORATING TRADITIONAL KNOWLEDGE

- **Diversification of Income Sources:** Introducing alternative livelihoods such as eco-tourism, mariculture or land-based livelihoods, can provide communities with additional income while reducing the pressure on marine resources, building resilience and allowing them to flourish.
- **Respecting and integrating traditional knowledge, domain and cultural practices:** This can help ensure that conservation measures are culturally appropriate and acceptable to communities. Working with local leaders and elders to design conservation measures that respect cultural practices is an important process can help to build trust and foster collaboration. For example, the Calamian Tagbanua of Coron Island was given the right to manage and preserve their ancestral waters. They are now stewards of the island and manage ecotourism, integrating their traditions with modern conservation practices[94].

POLICY SUPPORT AND LEGAL FRAMEWORKS

- **Decentralised Governance:** Strengthening local governance and providing legal support to community-led conservation initiatives enhances the effectiveness and sustainability of these efforts. The Philippines' Fisheries Code[95] supports the establishment of MPAs and Fisheries Management Areas which promotes community involvement in coastal resource management. However, the legislation has yet to adapt to the challenges of climate change[96].

It is essential that approaches such as these are utilised as climate-smart MPAs are developed; traditional socio-ecological knowledge offers critical insights into changes of marine ecosystems over time. Ensuring that the purpose and benefits of any conservation measures and the impact they will have on communities is fully understood from the outset is critical.

CASE STUDY

THE ‘APO ISLAND MARINE RESERVE, NEGROS ORIENTAL’

The ‘Apo Island Marine Reserve, Negros Oriental’This reserve is a 74-hectare area with a population size of approximately 745. In the past, fishing activities in Apo were destructive[97], which degraded the marine habitats and fisheries resources greatly affecting the economy of the island.

In 1986 the entire island’s coral reef was declared a marine reserve. This is managed by the community through the Marine Management Committee (MMC), later known as the Protected Area Management Board (PAMB)[98]. PAMB is a multi-sector policy-making body that collects donations and fees from visitors and decides on all matters related to the planning and protection of MPAs to improve conservation outcomes and provide livelihood to the community. All the families on the island supported the sanctuary, thereby making it legally binding with the local government. The local fisherman set up the MMC and organized the local “marine guard” to formulate regulations and enforce laws against destructive fishing[99]. The community is engaged in ecotourism activities and uses the income for the residents and to maintain the sanctuary[100]. There is high evidence of a spillover effect of fisheries in the reserve[101], while the catch-per-unit effort tripled by the mid-1990s[102], manifesting restoration of damaged marine habitats and resources in the area. The Apo Island Marine Reserved served as a model to establish other MPAs, with over 400 sanctuaries now established nationwide[103]. This is an example of a sustainable community-led marine conservation that can be replicated in other areas of the globe.

1986

IN 1986 THE ENTIRE ISLAND’S CORAL REEF WAS DECLARED A MARINE RESERVE

CASE STUDY

TUBBATAHA REEFS NATURAL PARK (TRNP)

This UNESCO World Heritage site faces anthropogenic and ocean warming threats. Tubbataha is managed by the Tubbataha PAMB (TPAMB)[104], while day-to-day operations are handled by the Tubbataha Management Office (TMO). Ecosystem research and monitoring has been conducted annually since 1997 and is used as the basis for TPAMB decision making and adaptive management; this monitoring is also a requirement of the current TRNP Management Plan[105]. Through its multi-sector and multi-level coordination and capacity building, the TPAMB has successfully enforced the law and conducted climate change monitoring (e.g., seawater temperature, fish, benthos, seabirds and coral reef ecosystems). However, a systematic ecological monitoring program must be sustained.

In addition, in 2017 the TRNP was designated a Particularly Sensitive Sea Area and “area to be avoided” by the International Maritime Organization (IMO). Measures such as these can be used as a spatial tool to complement conservation measures and MPA designations; this will become increasing important as these measures take climate change into account. This also links T1 on Spatial Planning, T14 on Integration of the GBF.

Photo Ocean image bank, Andy Casagrande

IN 2017 THE TRNP WAS DESIGNATED A PARTICULARLY SENSITIVE SEA AREA AND “AREA TO BE AVOIDED” BY THE INTERNATIONAL MARITIME ORGANIZATION

CONCLUSION & CALLS TO ACTION

The evidence is clear: integrating strategies that consider both current and future climate impacts into MPA planning and design will strengthen ecosystem resilience and better prepare for changes in the marine environment. These approaches go hand in hand with the myriad of benefits MPAs already offer, including the protection of biodiversity and safeguarding the livelihoods of those who depend on healthy marine environments. Climate-smart MPAs are not a "nice-to-have", but an essential component of ocean protection that will help to drive effective management. Meeting the '30x30' target is vital and, we can bolster the quality of this target by integrating knowledge of shifting environmental conditions, while also considering how to draw in mitigative and adaptative benefits.

At the heart of successful conservation efforts lies meaningful engagement with IPLCs. Their traditional knowledge, coupled with their intimate understanding of local ecosystems, is invaluable. By prioritising their leadership and involvement within ocean conservation, through a multidisciplinary and multi-stakeholder approach, more effective and resilient climate-smart MPAs and MPA networks will be achieved. This will also ensure efforts are both equitable and sustainable long-term. By fostering partnerships and serving as bridges between communities, governments, and other stakeholders, marine conservation NGOs can help translate these principles into actionable strategies on the ground.

The economics of climate change and ocean conservation also state that acting now is not just environmentally prudent, it is financially wise. Delaying action only increases the eventual cost of mitigation and adaptation. The latest report from IPCC projects that by 2050, climate-related declines in ocean health will result in global economic losses of USD $428 billion per year, rising to USD $1.98 trillion per year by 2100[106]. By investing in climate-smart MPAs and broader conservation efforts today, we can significantly reduce future expenses while maximising ecological and economic benefits.

Key recommendations for climate-smart MPA implementation:

1. **Designate and implement climate-smart MPAs:** Actively promote the designation and management of climate-smart MPAs to align with national climate and biodiversity strategies. These MPAs should focus on building climate resilience, protecting critical carbon stores and climate refuge areas. Climate-smart MPAs within the High Seas should also be pursued.

2. **Share knowledge and build capacity:** Conduct workshops, training sessions and educational programmes that focus on the principles and benefits of climate-smart MPAs for different stakeholder groups. These include IPLCs, marine industries, government departments, marine conservation practitioners and other non-state actors.

3. **Develop guidance to support climate-smart implementation:** Provide clear guidance and technical support to governments in reviewing and updating existing MPAs. This should include the creation of management plans that incorporate the eight climate-smart principles and adaptive management approaches.

4. **Integrate climate-smart planning at the local level:** Work with local governments and other bodies to include climate-smart MPAs in coastal and fisheries management plans. Encourage the sharing of data on how fisheries are impacted by climate change, facilitating better coordination and enabling the development of effective regional management plans.

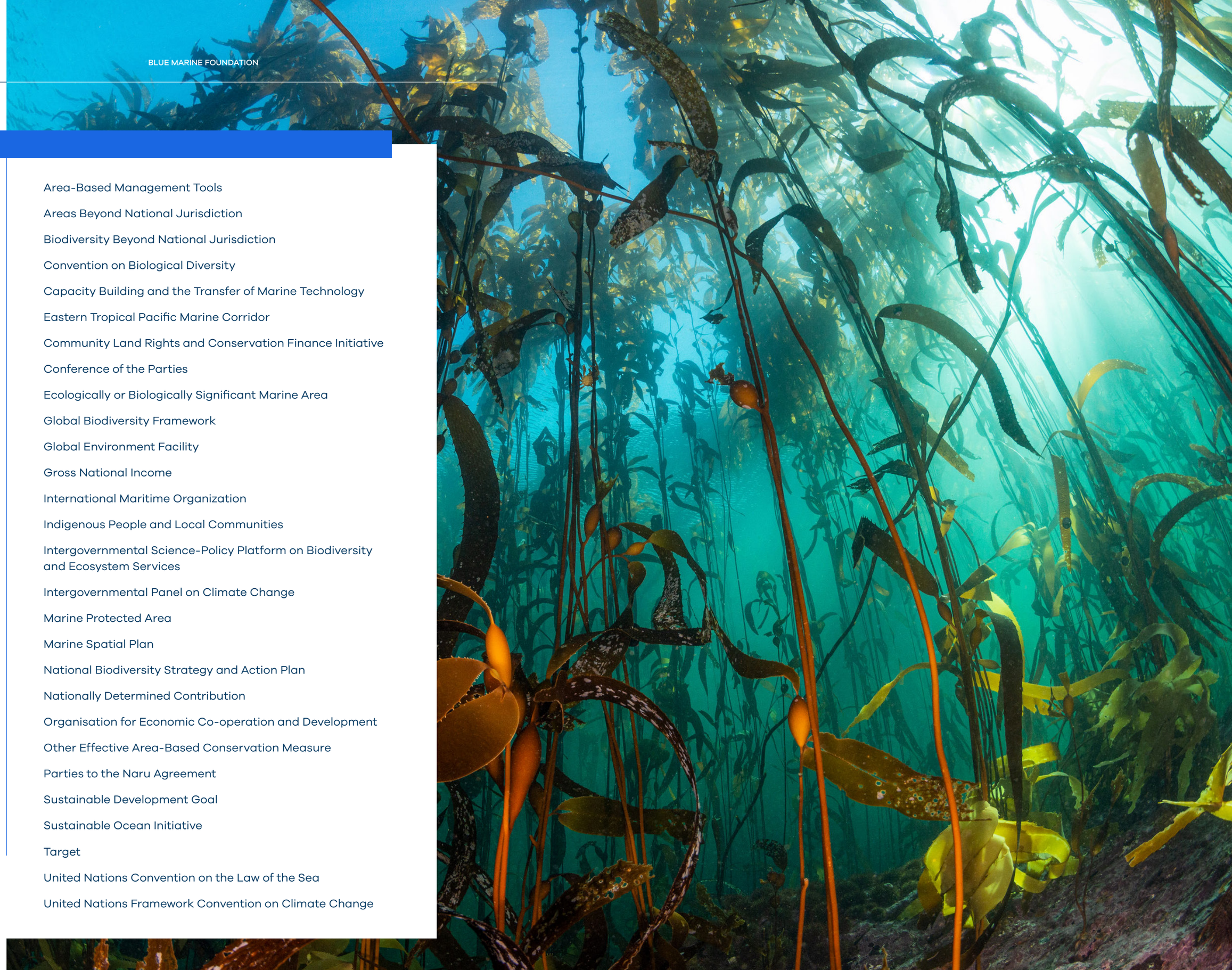
5. **Strengthen data collection and build capacity:** Identify key gaps in evidence and data. Capacity gaps within institutions responsible for gathering, managing and analysing this data should also be assessed to ensure countries are able to meet their global commitments. Steps should then be taken to improve data collection methods and subsequent monitoring of MPAs.

IN 2025, THE UN OCEAN CONFERENCE WILL TAKE PLACE IN JUNE, GIVING THE WORLD AN OPPORTUNITY TO TAKE STOCK OF PROGRESS AGAINST SDG 14, LIFE BELOW WATER.

In 2025, the UN Ocean Conference will take place in June, giving the world an opportunity to take stock of progress against SDG 14, Life Below Water. The conference is ideally positioned to help drive momentum, increase ambition and emphasise the ocean's critical connection to climate change. In addition, by September 2025, the High Seas Treaty must be ratified by 60 countries in order come into effect. These milestones are touchpoints for governments to demonstrate their commitment to achieving the targets of the GBF, ultimately securing a sustainable and equitable future for people and the planet.

Acronyms

ABMT	Area-Based Management Tools
ANBJ	Areas Beyond National Jurisdiction
BBNJ	Biodiversity Beyond National Jurisdiction
CBD	Convention on Biological Diversity
CBTMT	Capacity Building and the Transfer of Marine Technology
CEMAR	Eastern Tropical Pacific Marine Corridor
CLARIFI	Community Land Rights and Conservation Finance Initiative
COP	Conference of the Parties
EBSA	Ecologically or Biologically Significant Marine Area
GBF	Global Biodiversity Framework
GEF	Global Environment Facility
GNI	Gross National Income
IMO	International Maritime Organization
IPLC	Indigenous People and Local Communities
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
MPA	Marine Protected Area
MSP	Marine Spatial Plan
NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution
OECD	Organisation for Economic Co-operation and Development
OECM	Other Effective Area-Based Conservation Measure
PNA	Parties to the Naru Agreement
SDG	Sustainable Development Goal
SOI	Sustainable Ocean Initiative
T	Target
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change



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