Closing the Implementation Gap

Capacity Development for Effective Marine 30x30

LIFE ON A SUSTAINABLE PLANET
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About This Report

This report was produced by the Adrienne Arsht Community-Based Resilience Solutions Initiative at the Smithsonian Tropical Research Institute (STRI) and authored by Dr. Vanessa Constant and Dr. Ana Spalding.

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Ana Endara, STRI

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Executive Summary

In December 2022, under the Kunming-Montreal Global Biodiversity Framework, countries worldwide committed to conserving 30% of the ocean by 2030 using area-based management tools such as marine protected areas (MPAs) and other effective area-based conservation measures (OECMs). Achieving the 'marine 30x30' target is vital for addressing the triple planetary crisis of pollution, biodiversity loss, and climate change, and securing a sustainable future for the ocean—and for ourselves.

Fortunately, progress towards meeting this ambitious target is already evident. According to the World Database on Protected and Conserved Areas, designated MPAs cover 9.8% of the global ocean as of June 2026, up from 8.4% in 2024. Yet progress on paper has not always translated into practice: at least half of existing MPAs remain unimplemented or operationally ineffective. Furthermore, an additional 20% of the ocean still needs to be protected to meet the 30x30 spatial target, but protection alone is not enough; those areas must also be effectively managed. This reveals a critical gap between intention and action that is putting real progress towards conserving the global ocean in jeopardy.

≈20% **of global ocean still to protect to reach 30x30**

Achieving effective marine conservation requires more than an expansion of protected areas—it demands that these areas are actively managed, stewarded, and sustained over time. Otherwise, MPAs risk becoming 'paper parks'—designated but ineffective. Only through inclusive, sustained, and context-sensitive design, management, and funding approaches will marine conservation efforts be able to achieve their full potential. Delivering on this promise requires a deep understanding of what is missing: the people, collaborations, resources, and systems needed to bridge the gap, and the long-term investment needed to put conservation plans into action. This involves the long-term commitment and engagement of multiple stakeholders, from key government ministries to scientists, law enforcement, people working in industries such as fishing and tourism, Indigenous Peoples and local communities, NGOs, civil society, and the financial sector. Capacity development and sharing—in strengthening the

abilities of individuals, institutions, and systems by enhancing skills, expanding knowledge, and providing organizational support to improve performance and achieve shared goals—is central to this effort. However, historically, investments have been fragmented and short-lived and have typically failed to meaningfully increase capacity. The ambition of an expanded marine conservation system, exemplified by the 30x30 target, has outpaced the personnel, skillsets, and infrastructure required to make it real.

Through literature review, stakeholder engagement, and transdisciplinary dialogue, this report is the first work to comprehensively explore the current landscape of marine 30x30 capacity development and identify what is needed to move forward. Engagements spanned multiple sectors and geographies with a particular focus on the regions of Southeast Asia, Latin America and the Caribbean, and the Western Indian Ocean.

Report findings show that successfully implementing marine 30x30 hinges not only on technical solutions but on two foundational, cross-cutting capacity development needs: regional contextualization and effective coordination.

1. **Context (of the work) is regional**—each region has unique needs, challenges, and opportunities.
2. **Coordination is essential**—facilitation of shared commitment frameworks (e.g., marine 30x30) and peer-to-peer learning will significantly increase impact.

Effective marine conservation also depends upon meeting several theme-specific needs.

3. **Governance and policy**—transfers of critical knowledge must accompany changes in leadership and personnel to ensure continuity, enhance institutional memory, and support progress; the absence of clear timeframes and reciprocal accountability measures for policy implementation and capacity development creates ambiguity.
4. **Funding and resources**—longer-term, localized, systemic, and patient funding is needed; biodiversity change does not happen overnight, and funding can be opaque, inconsistent, overly complex, and sometimes disconnected from both community and environmental needs, opportunities, and timelines.
5. **Stakeholder engagement and inclusion**—localized management and ownership, early engagement, trust, and inclusive multidisciplinary teams are all essential.
6. **Data and technology**—it is important to simplify and systematize science and data collection, address technological inaccessibility, improve digital safety, and enhance technology and data literacy; there is a mismatch between the technology that exists and is being developed and the actual needs, skills, and priorities of communities, governments, and other key sectors.
7. **Socio-ecological integration**—data for decision-making must include accurate assessments of both the environment and the people reliant upon it.
8. **Communication**—there is a need to improve the way we talk about conservation; to shift mindsets and leverage collective support, MPAs should be reframed and presented as shared value propositions, with a focus on culturally grounded storytelling and capacity-sharing narratives, and the use of visual tools and behavioral campaigns.

Without these key systemic changes, the foundational needs for delivering 30x30 will remain largely unmet. Progress is being made, with local organizations and initiatives and innovative funders at the forefront, but—despite decades of effort and growing global recognition of the importance of marine conservation—the pace and scale of these initiatives remain limited, largely due to significant capacity gaps.

With just four years left to achieve 30x30, the time to fill these gaps is running out. Success will depend on global commitments and political will, paired with local leadership and supported by sustained funding and collaborative frameworks that respect regional contexts and can galvanize systemic change. Improving MPA effectiveness is both essential and within our grasp; developing and sharing capacity in key areas will expediate and sustain the marine conservation we need to deliver on our commitments to the ocean.

4 YEARS left to hit 30x30 goals

Introduction

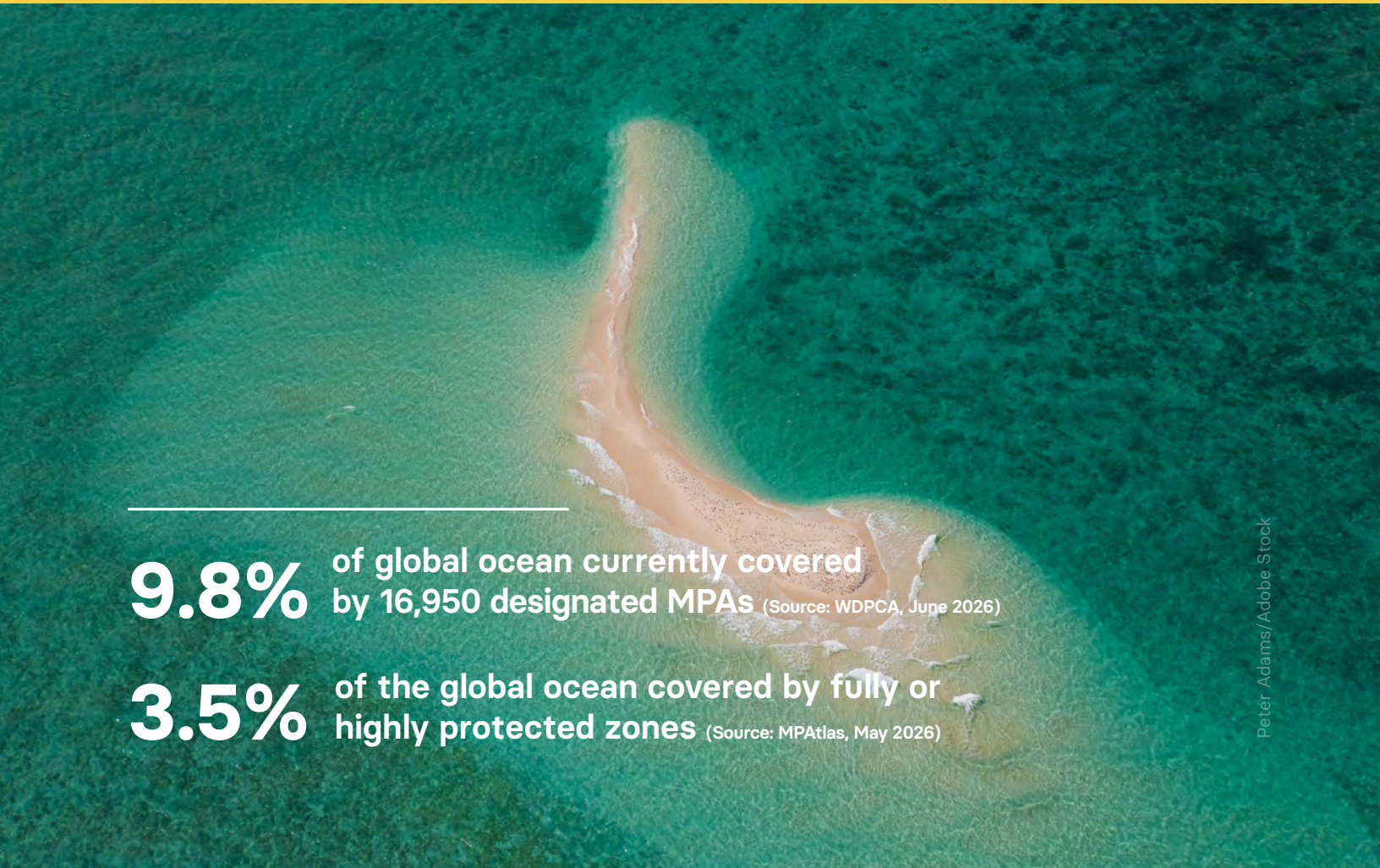
State and Science of Marine Protected Areas

On land and at sea, we are losing nature faster than ever before. An estimated 1 million species face extinction, with disastrous consequences for people and the planet. The Living Planet Index 2024 indicates that marine wildlife declined by 56% between 1970 and 2020. These nature losses both reflect and exacerbate the effects of a changing climate and put ecological and human communities at risk.

A healthy ocean is essential to all life on Earth. It regulates the climate, absorbs vast quantities of carbon, supports local economies and sustainable industries, and provides food and livelihoods for millions of people. However, the global ocean is currently experiencing unprecedented and accelerating change, with record-breaking ocean warming, more frequent and intense marine heatwaves, acidification, and plastic pollution impacting all areas of the ocean.

While time is not on our side, science-based opportunities and tools to halt and reverse nature loss exist, and governments from across the globe are getting on board. Just over three and a half years ago, at the UN Convention on Biological Diversity Conference in Montreal, the world came together to set a new course for nature.

With the adoption of Target 3 of the Kunming-Montreal Global Biodiversity Framework (GBF Target 3) in December 2022, 196 countries committed to ensure that by 2030 at least 30% of the ocean is "effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of



protected areas and other effective area-based conservation measures". Meeting this science-based 30x30 target specifically calls for the expansion or establishment of marine protected areas (MPAs) and other effective area-based conservation measures (OECMs). These are proven tools for conserving marine biodiversity. When effectively managed with the support and engagement of local communities and stakeholders, MPAs create safe havens where ocean life can recover and generate 'spillover' benefits that boost fish populations and enhance the resilience of ecosystems well beyond their borders.

There has been encouraging progress in global ocean conservation since governments committed to GBF Target 3. In June 2026, the World Database on Protected and Conserved Areas, maintained by the UN Environment Programme's World Conservation Monitoring Centre, reported that 9.8% of the global ocean was officially designated within 16,950 MPAs (Source: WDPCA, June 2026). In addition to these MPAs, more than 200 areas—accounting for a further 0.22% of the ocean—have been recognized as marine OECMs. This amounts to over 35 million km^2 of ocean, more than twice the size of Russia. These figures represent a global effort, with countries around the world contributing to the shared goal of ocean conservation. However, percentage points alone paint an incomplete picture.

To understand the true impact and effectiveness[1] of protected areas, scientists and conservationists have turned to tools like *The MPA Guide*. This framework helps distinguish areas that exist only on paper from those that are actively managed and enforced—where real, tangible benefits for marine life can be expected. According to *The MPA Guide*, while 9.8% of the ocean is located within designated MPAs, just 3.5% is covered by implemented and fully or highly protected zones that safeguard biodiversity from harmful activities (Source: MPAtlas, May 2026).

A recent global analysis, including over 90% of reported MPAs, revealed another sobering insight: about one-quarter of the area covered by MPAs has not yet been implemented in practice. In these areas, despite their official status, no active management is taking place in the water—and thus the conservation and spillover benefits that such protections promise are not being realized. This finding, highlighted in a 2024 study by Pike and colleagues and elaborated upon in a report by Metabolic assessing global progress toward the 30x30 target for ocean conservation, underscores a critical gap between intention and action.

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Additional mechanisms like Skytruth's 30x30 Progress Tracker are being developed to monitor the world's progress toward 30x30, draw new protected areas, and find tools and organizations working for the protection of marine ecosystems. These efforts demonstrate that, while progress is being made, the journey toward effective ocean conservation continues—not just in designating more protected areas (quantity), but also in ensuring they are brought to life and sustained through active stewardship (quality).

Delivering effective conservation involves understanding what is missing; identifying the people, resources, and systems needed to bridge that gap; and securing the long-term investment required to put conservation plans into action. In other words, it involves identifying and developing the capacity needed to ensure desired outcomes are achieved and sustained.

[1] Multiple definitions of effectiveness exist. For the purposes of this report, effectiveness is defined as the degree to which an area achieves its conservation goals, encompassing ecological, social, and governance dimensions. It involves evaluating the degree to which an area is achieving its stated objectives, which may include protecting specific species, habitats, or ecological processes. Ultimately, the effectiveness measure is about whether an area is making a positive impact on ocean health and contributing to the conservation of marine life and habitats.

Understanding the Capacity Gap

Capacity development and sharing is the process of strengthening the abilities of individuals, institutions, and systems by enhancing skills, expanding knowledge, and providing organizational support to improve performance and achieve shared goals. Capacity is essential to enable the effective implementation of marine conservation measures. Notably, when considering capacity development, context matters; and it is important to recognize the immense wealth of capacity already in place. Thus, 'capacity sharing' opportunities, characterized by co-learning and exchange of capacities, are often critical to ensure timely, robust, and relevant action. This context-dependency, combined with the variety of pathways that exist for developing capacity, often makes it challenging to measure and evaluate progress at scale or to finetune solutions locally. As a result, historically, investments in capacity development for marine conservation have been fragmented.

The expanded marine conservation system is robust, ambitious, and making headway thanks to exceptional work being done by visionary partnerships and initiatives at the regional and local levels. But it is not yet supported by the personnel, skills, resources, collaborations, and other capacities necessary to deliver marine conservation at the pace, scale, or level of effectiveness required to meet the 30x30 target. There is an urgent need to address this capacity gap.

Recent global commitments and increasingly integrated approaches are laying the foundation for systemic change. For example, the Blue Nature Alliance's Scaling Global MPA Capacity to Reach 30x30 Initiative is building a framework that would help partners move beyond project-by-project capacity development to achieve sustained delivery that keeps pace with expanding area-based conservation. However, despite the significance of capacity development for marine conservation, few efforts exist that comprehensively explore and scientifically analyze the marine 30x30 capacity development landscape, while also connecting multi-sector practitioners and disciplines across regions. Below we outline our findings on needs and opportunities for capacity development for marine 30x30 across regions and sectors. We recognize that there are several programs already in place to develop and share capacity, and our approach and associated findings aim to be complementary to these efforts.

Ana Endara/STRI

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≈25% of designated MPAs are not yet implemented

≈20% of global ocean still to protect to reach 30x30

Methods

The Smithsonian Institution has embarked on a project to understand where there are gaps in capacity and where there are opportunities for the effective implementation of marine 30x30. Between April and October 2025, through a literature review, stakeholder engagement, and facilitated dialogues, we applied transdisciplinary thinking[2] to survey what exists and what is needed, and to present successes, challenges, and future opportunities for the development and sharing of capacity. This body of work:

- Increases understanding and awareness of global capacity development needs for effective implementation of 30x30 and beyond.
- Strengthens the global stakeholder network required to increase science-to-policy capacity.
- Spotlights inspirational case studies demonstrating proven solutions to increase marine capacity in different thematic areas, to share experiences and opportunities for learning.
- Identifies actionable, multi-sector, and regionally relevant strategies with potential for global transferability and scaling.

Literature Review

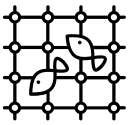
We conducted a preliminary review of existing literature that used *The MPA Guide* as a reference or framework for analysis. Between the publication of *The MPA Guide* in the journal *Science* in 2021 and the first facilitated dialogue in April 2025, there were more than 250 published references to its use. All mentions of gaps in effective implementation were extracted and grouped (Table 1). Seven themes emerged, ordered below from most to least frequently occurring:

- **Management and strategy**
- **Governance and policy**
- **Monitoring and evaluation**
- **Funding and resources**
- **Stakeholder engagement and inclusion**
- **Data and technology**
- **Socio-ecological integration**

Ariel View/Adobe Stock

[2] Transdisciplinary thinking is conducted collaboratively, focusing on the needs of decision-makers and other end users, and integrating natural and social sciences, policy analysis, sustainable financing, and stakeholder engagement. It is essential for evidence-informed decision-making and can provide targeted insights for implementation pathways or locally relevant solutions for the effective implementation of marine 30x30.

Table 1. Seven themes with examples of gaps in effective implementation, extracted and synthesized from the literature review. Some of the gaps were found to be cross-cutting across themes.

Theme	Examples of gaps in effective implementation
Management and strategy	• Streamlined criteria for categorizing protections • Key performance indicators, including societal impacts and climate smartness/ measurement tools • Accountability mechanisms • Adaptive/mixed management • Cross-sector coordination/alignment • Evaluation of human activities
Governance and policy	• Accountability mechanisms; legal frameworks, mechanisms, regulations, and rules (and their simplification); and functionally integrated incentives for enforcement and compliance • Speed and scale of policy implementation • Mechanisms for power sharing and co-governance
Monitoring and evaluation 	• Classification, tracking, and reporting of MPA commitments, quantity, and quality in global databases • Definition of empirical measure of effectiveness and evaluation of conservation outcomes
Funding and resources	• Investment of resources and commitment to expanding marine social science research capacity • Sustainable finance/financial investment • Capacity (technical, financial, staff, enforcement, institutional, management) • Engagement of private and public funding and subsidies for critical infrastructure to enable local communities to act on conservation recommendations
Stakeholder engagement and inclusion	• Multi-sector partnerships • Inclusive and transparent engagement and inclusion processes • Balanced portfolio of government and rights-holder-led protected areas • Support for community building
Data and technology	• Baseline and long-term data • Data for impact assessments to identify ecological and social synergies and potential trade-offs • Emerging technologies and technological advancement • Standardized geospatial information on MPA management, governance features, and human uses (centralized official database)
Socio-ecological integration	• Innovative methods and frameworks for more equitable integration of regional marine ecosystem services studies, transition-based science, and socio-economic cost benefit analysis • Quantified socio-ecological relationships • Operational capacity via ecological and socio-economic processes • Integration of marine social science research within the marine science-policy-practice interface

Stakeholder Discussions and Facilitated Dialogues

Since April 2025, more than 80 individuals from nearly 50 organizations across the globe have participated in our hosted meetings and facilitated dialogues. These conversations spanned multiple sectors (e.g., philanthropy, private sector, academia, non-profits) and geographies, with a particular focus on the critical regions of Southeast Asia (SEA), Latin America and the Caribbean (LAC), and the Western Indian Ocean (WIO) (Table 2).

Table 2. Overview of global regions, constituent countries, and strategic importance. This table lists the focal geographic regions and the countries within them, and highlights the MPA significance of each region.

Region	Countries within region	Importance of the region
Southeast Asia	Indonesia, the Philippines, Vietnam, Thailand, Myanmar, Cambodia, Laos, Singapore, Timor-Leste, Brunei Darussalam, Malaysia (11)	• High level of marine biodiversity and rich marine and coastal resources • Nascent marine conservation portfolio • Opportunity to incubate and activate philanthropic ecosystem
Latin America and the Caribbean	Brazil, Mexico, Colombia, Argentina, Peru, Venezuela, Chile, Guatemala, Ecuador, Bolivia, Haiti, Cuba, Dominican Republic, Honduras, Paraguay, Nicaragua, El Salvador, Costa Rica, Panama, Uruguay, Jamaica, Trinidad and Tobago, Guyana, Suriname, Belize, Bahamas, Barbados, Saint Lucia, Grenada, St. Vincent and Grenadines, Antigua and Barbuda, Dominica, Saint Kitts and Nevis (33)	• On average, high percentage of MPA coverage • Existing, successful regional coordination frameworks (e.g., CMAR, CARICOM), where governments are cooperating to preserve biodiversity-rich seascapes while generating social, environmental and economic benefits for coastal communities and national economies • High biodiversity and connectivity • Relatively low population density along the coast and low relative salience of economic benefit of coastal activities (i.e., fisheries is a small percentage of GDP in some of these countries)
Western Indian Ocean	Somalia, Kenya, Tanzania, Mozambique, South Africa, Madagascar, Comoros, Reunion, Mauritius, Seychelles (10)	• High level of marine biodiversity and rich marine and coastal resources • Nations are at widely different stages of economic, social and political development • Highly dependent on coastal and marine ecosystems, which contribute significantly to the livelihoods of coastal communities and the economies and welfare of the countries • Challenges with policies and programs relating to resource use and access, inadequate enforcement, and limited resources for implementation • Exponential growth of MPAs in WIO region while progress in other regions is slow

The Smithsonian Institution hosted in-person facilitated dialogues and participated in bilateral meetings adjacent to the following international conferences during 2025, with representation from multiple sectors and geographies (Table 3):

- **Our Ocean Conference (OOC) in Busan, Korea (April 2025)**
- **Philanthropy Asia Summit (PAS) in Singapore (May 2025)**
- **United Nations Ocean Conference (UNOC) in Nice, France (June 2025)**
- **Climate Week in New York, United States (September 2025)**
- **Western Indian Ocean Marine Science Association (WIOMSA) Scientific Symposium in Mombasa, Kenya (September/October 2025)**

Table 3. Total number of participants, sectors, and geographies at the in-person facilitated dialogues adjacent to OOC, PAS, and UNOC.

	OOC (Korea)	PAS (Singapore)	UNOC (France)
Number of Participants			
Total	**28**	**21**	**23**
Sectors			
NGO	19	0	7
Academia	4	5	8
Philanthropy	4	15	2
Legal	0	1	0
Civil Association	0	0	1
IGO	1	0	1
Private	0	0	4
Geographies			
Asia	10	10	4
Africa	0	0	3
LAC	2	4	7
Global	16	7	9

During these exchanges, several local and regional examples of capacity development for marine 30x30 were shared. To showcase some of the highly impactful work taking place in this space and the visionary leadership behind it, we feature nine case studies along with the report's findings. These case studies demonstrate proven solutions to increase marine capacity in various thematic areas.

They are not intended to serve either as models for all future work or to indicate that further progress is not needed. On the contrary, each of the partnerships and initiatives featured in this report underscores that there is still more work to be done, and that conversation and knowledge-sharing fora—like the Smithsonian information-gathering series—are helping to unearth new, more collaborative pathways to success.

Findings

It is striking that, across different regions and disciplines, similar themes emerged in all the stakeholder discussions and dialogues and were largely aligned with those identified during the literature review. Within these thematic categorizations, several cross-cutting needs for more effective implementation were mentioned, most importantly collaboration and regional contextualization, and communication was added as a key theme following the facilitated dialogues.

The recurring nature of these challenges, regardless of theme, suggests not only a lack of progress in some areas but also a need to revisit and reframe the way we approach the marine 30x30 target.

Cross-Cutting

Capacity Gaps/Needs

During the information-gathering period, it became apparent that the effective implementation of marine 30x30 hinges not only on technical solutions but on two foundational, cross-cutting capacity development needs: collaboration and regional contextualization.

Collaboration

Across the conservation community, there is widespread interest in and desire for greater collaboration, coordination, and alignment. Among the most pressing needs are stronger agreements on shared goals (including transitioning the perception of effective protection from being an environmental issue to being a crucial societal need), increased interdisciplinarity and science diplomacy, and clearer understanding of the funding and capacity development required to achieve sustained conservation outcomes.

High Ambition Coalition

Conversations with partners underscored the importance of aligning efforts across organizations, governments, and funders to avoid duplication and maximize impact. The development of a policy-literate scientific workforce that is well positioned to liaise with decision-making entities will be key to the success of these efforts. To support this, the Smithsonian Tropical Research Institute (STRI) and the Inter-American Institute for Global Change Research (IAI) are developing innovative collaborations in this space in Latin America through a STRI-IAI fellowship that is funded by Bloomberg Philanthropies and executed in collaboration with the permanent secretariat of the Tropical Eastern Pacific Marine Corridor (CMAR) (see case study p.15).

During our listening sessions, organizations developing and sharing capacity for 30x30 implementation indicated that governments and funders have not consistently provided clear incentives or guidance for stakeholders to work together, hindering their ability to fully operationalize collaboration. There is a need for policy frameworks and strategic funding guidelines that explicitly require and enable cooperation, as well as programs and requests for proposals that mandate joint efforts and offer meaningful incentives for collaboration.

Additionally, collaborations for marine conservation often lack practical mechanisms to ensure equity, efficiency, and effectiveness. Current administrative processes create burdens that divert attention from impact. There is a need for shared reporting templates, joint administrative support services, and peer-to-peer learning exchanges to reduce overheads and allow grantees to focus on outcomes. Without these capacity-developing measures, smaller or under-resourced organizations remain at a disadvantage and cannot fully participate in joint conservation initiatives.

// Case Study //

COLLABORATING TO STRENGTHEN SCIENCE-TO-POLICY CAPACITY AND AMPLIFY IMPACT

WHO

Smithsonian Tropical Research Institute (STRI), Inter-American Institute for Global Change Research (IAI), Tropical Eastern Pacific Marine Corridor (CMAR)

WHAT

The STRI-IAI Fellowship, launched in 2025, is designed to strengthen science-to-policy capacity and amplify research impact for marine biodiversity conservation. It specifically strengthens the resilience of both human and ecological communities through applied science that supports the advancement of CMAR's objectives (i.e., to promote the conservation and sustainable use of marine resources in the region through an ecosystem-based management approach), aligned with its 2025–2030 Action Plan.

The inaugural fellow is focusing on developing a comprehensive biodiversity inventory using ecosystem network analysis. This approach integrates key ecological and commercially important species to understand connectivity across the marine corridor. The resulting information will serve as a baseline for implementing ecosystem-based management strategies and inform policy decisions regarding priority species and their broader ecological implications.

WHERE

The Tropical Eastern Pacific Marine Corridor, one of the most biodiverse marine regions in the world, spanning Panama, Colombia, Costa Rica, and Ecuador.

HOW

Through a collaborative framework combining STRI's scientific leadership and resources with IAI's structured training and policy integration platform. The fellowship applies ecosystem network analysis to create a comprehensive biodiversity inventory, linking ecological and commercially important species to inform regional strategies, policy decisions, and sustainable management practices.

IMPACT

At the interface of science, policy, and governance, this fellowship represents a unique opportunity to examine and strengthen existing biodiversity knowledge in the context of policy and management needs in one of the most diverse marine regions in the world, while amplifying research impact and developing science-to-policy capacity for a more integrated and sustainable ocean future.

Steven Paton/STRI

There are also questions over how to scale collaborations. Developing a mechanism to replicate and grow these models and successes is essential yet challenging, because their effectiveness depends on inclusion and local agency. As is often the case, with the expansion and scaling of efforts, decision-making becomes increasingly disconnected from lived realities on the ground, disproportionately putting local communities and environments at risk in ways that are not always visible to those who control the conservation narrative. Mitigating and addressing these risks requires the design of a scaling process with guardrails to preserve the context-specific characteristics that underpin effectiveness. One approach is the hub-and-spoke (federated) model with a national/regional hub, local nodes/spokes, and a learning network. The Blue Nature Alliance, through its Scaling Global MPA Capacity to Reach 30x30 and Beyond approach, is putting some of these principles into practice (see case study p.17).

Regional Contextualization

The challenge of scaling up collaborations is closely related to the equally critical cross-cutting need to recognize and adapt to diverse regional contexts. Marine ecosystems and governance structures vary widely across geographies, making tailored approaches that respond to local realities—ecological, cultural, and institutional—essential. This requires a baseline understanding from which goals can be set, and progress can be monitored and evaluated.

For 30x30, this includes collecting and sharing regional data on the stage of establishment and level of protection of MPAs. *The MPA Guide* is one tool that is being used for country-level assessments of MPA progress, with comparable frameworks for OECMs and Locally Managed Marine Areas (LMMAs) being applied as appropriate, once produced. Some countries have completed national-level assessments of their MPAs, for example the United States (see Sullivan

Steven Paton/STRI

// Case Study //

BUILDING CONNECTIONS AND IDENTIFYING LEVERS TO SCALE UP MPA CAPACITY

WHO

The Blue Nature Alliance

WHAT

The Scaling MPA Capacity to Reach 30x30 Initiative, which aims to transform the MPA workforce by institutionalizing capacity development programs, moving beyond fragmented, project-by-project training toward a systems approach that integrates all levels of marine management. This includes making effective management and MPA capacity top priorities for decision-makers; including stakeholders in governance to build political resilience and secure lasting investment; and partnering with donors to reimagine decision-making and shift power toward locally-led long-term funding approaches that strengthen MPA quality. In keeping with this, the MPA Capacity Community of Practice (CoP)—launched by the Initiative—exists to build connections, provide support, and share successes to accelerate MPA quality and workforce development.

WHERE

The CoP operates globally, focusing on regions where equity and effectiveness are most critical, and resources are scarce. Priority geographies include the Western Indian Ocean, East Asia Seas, Caribbean, and Pacific Islands.

HOW

Using a systems approach, the initiative identifies high-impact levers for improving MPA effectiveness and resilience. Actions include conducting rapid assessments of marine management systems to identify capacity gaps and collaboration opportunities; developing learning tools (e.g., Marine Management Systems Map); convening experiential and participatory workshops—virtual and in-person—to share patterns and best practices; and designing durable, scalable practices and resources to accelerate effective and equitable MPA management. The CoP's tiered and responsive approach ensures continuous learning across all levels, strengthening systems and amplifying investment effectiveness.

20+ virtual and in-person engagements
250+ MPA practitioners and scientists
5 global multi-day interactive workshops

Yannis/Adobe Stock

IMPACT

Organized 20+ virtual and in-person engagements involving 250+ MPA practitioners and scientists, and five global and three regional multi-day interactive workshops; conducted rapid assessments, co-designed strategies, and deepened relationships with capacity development providers; produced regionally tailored capacity development strategies; developed publicly accessible resources (e.g., Marine Management Systems Map, factsheet, and briefing). These efforts are helping to lay the foundation for durable, equitable systems of protection that are locally responsive and globally connected.

OTHER PARTNERS

80+ organizations and networks including Cambio Democratico; Coastal Resource Center, University of Rhode Island; Center for Biodiversity & Conservation, American Museum of Natural History; Center for Protected Area Management, Colorado State University; Global Network of MPA Networks; Locally Marine Managed Areas Network International; Marine Conservation Action Fund, New England Aquarium; Mediterranean Protected Area Network; MPA Connect, Gulf and Caribbean Fisheries Institute; NOAA National MPA Center & North America Protected Area Network; Pacific Islands Managed and Protected Area Community, Micronesia Conservation Trust; PEW Chile, MPA School of the Southern Cone; Reef Resilience Network, The Nature Conservancy; UN Coordinating Body on the Seas of East Asia; WildAid Marine Program; West Indian Ocean Marine Science Association; and Global Island Partnership. Dr Hugh Govan, Dr Gabrielle Johnson, and Meghan Gombos also played key roles.

Stack et al., 2022), but most geographies lack the necessary resources and incentives. Capacity development must therefore be responsive to regional differences, ensuring that conservation strategies are not only technically sound but socially, politically, and economically viable.

Organizations like Rare, which is supporting countries to achieve their 30x30 goals by expanding their conservation toolboxes, and WIOMSA, which is helping coastal and marine practitioners to realize their full potential through a broad range of novel, adaptable, and needs-based capacity development initiatives, are leading the way. Through its Western Indian Ocean Certification of Marine Protected Area Professionals (WIO-COMPAS) initiative, WIOMSA offers a compelling example of how tailoring training to the specific needs and realities of professionals in a region, combined with a recognition of prior learning, can produce highly effective MPA managers (see case study p.19).

The findings on these cross-cutting needs are neither surprising nor new. Indeed, they signal that while the challenges may be well-known, actionable solutions have yet to be fully realized or scaled. Addressing these needs with renewed commitment, innovation, and inclusivity is essential for moving towards effective marine conservation.

Opportunities

- Improve strategic alignment, reduce duplication of effort, and define and identify key priorities for developing capacity to more effectively implement marine 30x30.
  - Create a system to support high-quality, aligned requests (from philanthropy, government, etc.).
- Train scientists, communities, and governments to ask the questions and collect the socio-ecological data necessary to monitor and evaluate progress.
- Conduct national-level assessments by regions.
- Track and report commitments while also creating a social system that encourages accuracy (i.e., one where regardless of success or failure, accurate data matters and provides an opportunity to celebrate progress or support challenge areas).

NOTE: While 'Management and strategy' and 'Monitoring and evaluation' were identified as two of the seven thematic areas during the literature review process, they were not selected as focal areas for discussion during the facilitated dialogues and thus we do not include sections for these topics in the theme-specific findings below.

Underocean/Adobe Stock

// Case Study //

TAILORING MPA MANAGEMENT TRAINING TO FIT REGIONAL REALITIES

WHO

Western Indian Ocean Marine Science Association (WIOMSA)

WHAT

The Western Indian Ocean Certification of Marine Protected Area Professionals (WIO-COMPAS) is the world's first certification system for the protected areas community. The program operates at three levels: Level 1—Marine Field Operations, Level 2—Site Management, and Level 3—Policy and Strategy. Lists of essential competencies (skills) required at each level have been agreed, against which performance is assessed. The program evaluates MPA practitioners and ensures that they meet the highest standards in MPA management by validating on-the-job performance against rigorous standards of excellence. Initially an evidence-based certification program for MPA professionals in the WIO region who meet established benchmarks in knowledge, skills, and performance, it has since evolved into a multi-modal capacity-developing framework for MPA professionals at all three levels.

WHERE

The certification program has been implemented in all coastal countries across the WIO region, tailored to the local context and realities of professionals working in marine conservation. In 2019/2020, it was adapted to the LMMA context in Madagascar and Mozambique, with a similar process being followed for Community Managed Areas in Kenya and Tanzania. Potential program adaptation for the UK Overseas Territories context is currently being explored.

HOW

WIO-COMPAS uses a comprehensive evidence-based assessment process based on competencies to recognize prior learning and practical experience. Rather than relying on theoretical training, it certifies competence through demonstrated application in real-world settings. Seven core competency areas ensure that practitioners demonstrate the range of skills required for effective conservation management. These are: 1) Governance, 2) Marine Conservation (MPAs and other approaches), 3) Communication and Stakeholder Engagement, 4) Human and Financial Resources Mobilization and Management, 5) Management Implementation and Effectiveness, 6) Biophysical and Socio-Economic, and 7) Leadership, Ethics, and Innovation. Its success stems from an adaptive, region-specific approach and a commitment to the best contemporary professional evaluation principles.

IMPACT

To date, the WIO-COMPAS program has certified nearly 200 MPA professionals, increasing professional standards, strengthening capacity, building a regional community of certified individuals, supporting MPA management to align with international conservation goals, and recognizing field experience.

OTHER PARTNERS

WIO-COMPAS was developed with WIOMSA and the technical expertise of the Coastal Resources Center at the University of Rhode Island (CRC/URI). It is implemented through strong national partnerships that anchor the program within existing MPA governance systems. The countries and certification supporting entities concerned are as follows: Kenya (Kenya Wildlife Service), Tanzania (Marine Parks and Reserves Unit), Mozambique (National Administration of Conservation Areas and regional LMMA partners, including the Likhulu Foundation), Seychelles (Seychelles Parks and Gardens Authority), Madagascar (Madagascar National Parks and LMMA networks like MIHARI), Mauritius and Rodrigues (Ministry of Blue Economy, Marine Resources, Fisheries and Shipping and the Rodrigues Regional Assembly), South Africa (Department of Fisheries, Forestry and the Environment, as well as SANParks, Eastern Cape Parks and Tourism Agency, and CapeNature). These partnerships ensure national ownership, institutional continuity, and the integration of professional certification into country-level workforce development for effective MPA management.

Governance and Policy

Capacity Gaps/Needs

Effective implementation of marine conservation is largely dependent upon strong political will supported by robust governance structures and sustained policy capacity. However, several persistent challenges undermine these efforts, creating gaps that can be an obstacle to successful and long-lasting marine conservation.

One of the most significant challenges is high turnover within government institutions, particularly at local and regional levels. Frequent changes in personnel without complementary transfers of critical knowledge and strategy can disrupt continuity, erode institutional memory, and hinder progress. This instability not only affects strategic planning and decision-making but also impedes the development of long-term capacity development programs.

The High Ambition Coalition for Nature and People is changing this reality, moving beyond advocacy into implementation support by combining technical guidance, financial matchmaking, inclusive governance, and knowledge sharing (see 30x30 Solutions Toolkit, 30x30 Matchmaking Platform, and Rapid Deployment Mechanism) to help countries plan strategically, make informed decisions, and build lasting capacity for biodiversity conservation (see case study p.21).

High Ambition Coalition for Nature and People Secretariat

Language barriers are another critical issue, especially in multinational or cross-jurisdictional conservation initiatives. These barriers can limit effective communication between stakeholders, reduce the accessibility of technical guidance, and complicate the dissemination of best practices. As marine conservation increasingly involves collaboration across borders and cultures, addressing linguistic challenges is essential to fostering inclusive and effective governance.

Additionally, the absence of clear timeframes and reciprocal accountability measures for policy implementation and capacity development creates uncertainty. Without defined milestones or deadlines it becomes difficult to measure progress, allocate resources efficiently, and motivate sustained engagement from stakeholders. Timebound frameworks are crucial for translating conservation targets into actionable plans and for ensuring alignment across priority areas.

Together, these gaps highlight the need for a more strategic and coordinated approach to governance and policy capacity development, something that is embodied by Rare and the Coastal 500 network (see case study p.22).

Opportunities

- Create onboarding packages that can be deployed efficiently—survey, assess, consolidate, and share existing resources and tools across various levels of government.
- Develop cross-industry and country exchange programs.
- Build and support regional ocean leaders and associated support structures (see Coastal 500 as an example) to ensure language and cultural barriers can be overcome and to ensure a unified front at global ocean policy events (similar to the negotiating blocks and coalitions formed for the UN Framework Convention on Climate Change Conference of the Parties).
- Establish clear progress-tracking processes (or streamline existing ones, where possible), and explore accountability/enforcement mechanisms with key partners across regions.

// Case Study //

POLITICAL MOMENTUM AND STRATEGIC SUPPORT TO ACCELERATE 30X30

WHO

High Ambition Coalition for Nature and People (HAC for N&P)

WHAT

The HAC for N&P—the largest multilateral coalition united to protect nature—supports the historic effort to conserve and protect at least 30% of the planet's land and ocean by 2030. It does so by driving political momentum to ensure this global target remains at the top of the international agenda, and by providing technical and financial support through capacity-developing activities, knowledge-sharing, and specific support tools such as the 30x30 Matchmaking Platform and the Rapid Deployment Mechanism (RDM).

WHERE

The HAC for N&P works in 122 member countries to support the acceleration of 30x30 plans and across international platforms to advance conservation strategies and governance.

HOW

The HAC for N&P Secretariat has made significant strides in supporting its members to implement the 30x30 target by helping countries to accelerate their efforts, including by developing national roadmaps, conservation strategies, and policies for MPAs and OECMs; and facilitating capacity development and sharing through workshops, trainings, and peer exchanges on key themes related to 30x30 (e.g., OECMs, sustainable finance, inclusion of Indigenous Peoples and local communities). The Secretariat is also supporting its members through the 30x30 Matchmaking Platform with the aim of matching countries' needs with both technical and financial offers. Following its Earthshot Prize win in 2024, the Secretariat also developed a system for making small grants, the Rapid Deployment Mechanism, to unlock financial support and boost 30x30 implementation plans.

IMPACT

The HAC for N&P Secretariat has evolved from being a champion of the 30x30 target into a central delivery hub, coordinating governments, subnational authorities, partners, and Indigenous Peoples and local communities toward the expansion and effective management of protected and conserved areas. To this day, the HAC remains the largest global intergovernmental platform engaging directly on protected area expansion, prioritization, and management effectiveness.

The Secretariat has also expanded its membership; had an influence in key negotiations; provided strong credibility for other partners to support HAC for N&P members (e.g., SPACES, Enduring Earth programs); developed implementation infrastructure (30x30 Matchmaking Platform, 30x30 Solution Toolkit, RDM); engaged with more than 80 countries and 1,200 people through virtual thematic webinars, trainings and 30x30 regional workshops in collaboration with the CBD Secretariat and other partners; catalyzed major MPA designations at UNOC3; advanced High Seas Treaty ratifications through common outreach with France; deepened engagement through its taskforces related to subnational governments and Indigenous Peoples and local communities in particular with the International Indigenous Forum for Biodiversity; and maintained political momentum for 30x30 across biodiversity, climate, and ocean forums.

OTHER PARTNERS

The HAC for N&P Secretariat works with a network of more than 70 partners and supporters from multilateral organizations, NGOs, multilateral development banks, financial actors, philanthropic organizations, and the private sector.

High Ambition Coalition for Nature and People Secretariat

// Case Study //

LOCAL LEADERS CHAMPIONING TANGIBLE ACTION FOR COASTAL COMMUNITIES

WHO

Rare and Coastal 500

WHAT

Coastal 500—launched in 2021 with the help of global environmental NGO Rare—is the largest global network of mayors and local government leaders driving action for prosperous coastal communities and thriving seas. Members are committed to championing policies and driving tangible solutions to sustain the health of coastal and marine ecosystems, secure local livelihoods, and build resilience.

WHERE

Local coastal governments across eight countries including Brazil, the Federated State of Micronesia, Guatemala, Honduras, Indonesia, Mozambique, Palau, and the Philippines.

HOW

Coastal 500 serves as a platform for local governments and their leaders worldwide to collaborate, learn from, and inspire one another to drive individual and collective action and amplify the needs of their communities on national, regional, and global stages. Through the network, members are supported in mobilizing constituents to manage and restore fisheries and coastal habitats, champion key initiatives to protect coastal and marine resources, strengthen local capacity for effective coastal and fisheries management and nature-based adaptation, and advance global advocacy for coastal priorities. To join, each member pledges to carry out specific actions that ensure the wellbeing and resilience of their communities and the coastal and marine resources that sustain them. The Coastal 500 Action Guidebook provides an array of actions members can take to further their commitment.

IMPACT

As of April 2026, the network reached 537 mayors and local government leaders across 8 countries. Members have partnered with local communities to steward over 9.5 million hectares of coastal waters, advancing local policies to support their protection and effective management.

OTHER PARTNERS

Global Island Partnership (GLISPA), Revive Our Ocean, Smithsonian Institution.

Samuel/Adobe Stock

Funding and Resources

Capacity Gaps/Needs

Securing the funding and resources necessary for the effective implementation of marine conservation is a persistent and systemic challenge. Our research reveals the widely shared experience that funding can be opaque, inconsistent, overly complex, and occasionally disconnected from community needs and opportunities. Many funding institutions operate within rigid financial systems that limit flexibility and responsiveness, as highlighted in reports such as The Ocean Protection Gap.

These challenges can become acute following MPA designation and can vary with the level of protection involved (e.g., fully protected areas have higher initial social and financial costs than minimally protected areas). The shift in use and access to marine resources and spaces associated with protected area implementation often requires communities to pursue alternative or diversified livelihoods. They may need to move towards eco-enterprises, or to economic models that link conservation with livelihoods, which can help to alleviate some of the burden associated with a transition away from practices not aligned with protected area implementation, while also existing within the confines of more traditional financial systems. At the same time, these new economic models often do not account for the cultural, spiritual, and historical ties that could be lost through an occupational shift or the time and resources necessary to make the change. During stakeholder dialogues, one practitioner from Mozambique asked, "How do we keep people fed while closures are in place and populations continue to grow?" This statement reflects the fact that the needs of communities are often more diverse than funding organizations are prepared for, and rigid funding mechanisms can impact local wellbeing, leading to critical support gaps that can cause implementation failure.

Keiko/Adobe Stock

Conservation financing often lacks customization and localization, failing to reflect the unique ecological, cultural, economic, and governance contexts of diverse marine environments and local communities. This absence of contextual awareness undermines the effectiveness of capacity development for implementation. For example, multiple local implementers emphasized the disconnect between grant timelines and conservation outcomes in their geographies, noting that while funding cycles may run on 1–3-year horizons, ecological and behavioral changes take much longer. The Sustainable Finance Coalition is helping communities to create customized financial solutions for nature (see case study on p. 25).

Additional funding capacity gaps include a lack of accountability mechanisms, insufficient transparency in progress reporting, and few shared data-driven values or stories around global conservation. These components are necessary to secure public, political, and financial support. This challenge is addressed in publications including Metabolic's On track or off course? – Assessing progress toward the 30x30 target for the ocean, World Resources Institute's Assessing 10 years of international commitments to sustainable ocean action: A global stocktake of the Our Ocean Conference, and Together for the Ocean's The ocean protection gap: Assessing progress toward the 30x30 target. The funding community is producing reports in kind such as Our Shared Seas' Funding Trends: Tracking the State of Global Ocean Funding series.

Rare

While philanthropic capital has been essential in catalyzing marine conservation action, our findings reveal that philanthropic support tends to not fund the full spectrum of implementation needs, such as baseline research, sustained staffing, and essential management materials like buoys and boats. As a result, there is often a failure to implement lessons learned and support solutions generated from community-led efforts—even when they have been tried, tested, and proven to work.

Currently, many conservation efforts are siloed, perpetuating a lack of collaboration and financial resource diversification while limiting the ability to build financial literacy among local stakeholders and conservation leaders. Strategies must be developed to encourage collective support, shared learning, and co-investment across sectors. That requires the continuum of capital (i.e., the range of funding options available) to be in the room. Without sustainable funding models and the capacity to manage them, MPAs risk becoming paper parks—designated but ineffective. Inclusive, sustained, and context-sensitive funding approaches are imperative if marine conservation efforts are to deliver their full potential and be scaled up to achieve 30x30.

Opportunities

- Share stories of philanthropic impact and lessons learned to show how philanthropy works and how it can interact with other financing mechanisms.
- Train communities and implementors to secure philanthropic funding by using data-driven storytelling and accountability mechanisms.
- Integrate science and data into workforce development pipelines to strengthen local capacity and foster innovation.
- Explore opportunities to establish a sustainable ocean finance initiative, specific to 30x30, to identify impactful, actionable, and sustainable investment opportunities (while also tracking the impact per dollar).
- Educate and build long-term community capacity on sustainable finance mechanisms to reduce individual donor dependence (grow trust-based philanthropy, attract private sector partners) and increase opportunities for funders to learn about community priorities to ensure investments are aligned.
- Mobilize private capital by developing an inventory of investable projects with simple, science- and community-based narratives and reporting around the value of 30x30 and MPAs, and diverse sustainable funding mechanisms (e.g., blue carbon credits, biodiversity credits, sustainable tourism).
- Combine investments and value creation teams to increase time horizons and move beyond the short-term 'writing a check and receiving a report' approach.

// Case Study //

MOBILIZING CUSTOMIZED FINANCIAL SOLUTIONS FOR PEOPLE AND PLACES

WHO

Sustainable Finance Coalition (SFC)

WHAT

The SFC is a network of organizations and individuals focused on designing and mobilizing customized financial solutions for nature. It repurposes traditional financial instruments and uses its systematic Find–Design–Mobilize model, connecting the right people and places to the most viable finance mechanisms to unlock capital for conservation. Central to its work is the Finance Solution Inventory, an open-source hub for discovering and scaling finance tools.

WHERE

Contiguous high-biodiversity landscapes and seascapes in Africa with finance solutions that have been replicated across 15 countries and the South West Indian Ocean.

HOW

By bridging public, private, and civil society actors, the Coalition fosters innovative partnerships and matches credible opportunities with viable transitions. The SFC's identification of high-potential finance solutions, coordination of tailored designs, and efficient mobilization of resources drive enduring conservation outcomes. The Coalition builds capacity through actionable resources, fosters innovative partnerships, and ensures financial flows are directly linked to on-the-ground conservation actions. Notably, the High Ambition Coalition for Nature and People has adopted the SFC model, integrating it into its 30x30 toolkit—further validating its relevance and scalability.

IMPACT

The SFC has launched 11 new finance solution incubators, with 4 of them having unlocked US $43 million in new finance for nature to date, and the other 7 progressing towards unlocking impact. Today, Coalition finance solutions are helping to support the effective management of 69,000 hectares of SWIO landscapes and seascapes. This demonstrates that innovative finance mechanisms are not only being developed but are already mobilizing significant capital and partnerships at scale, accelerating real-world impact for nature across a growing area.

OTHER PARTNERS

The SFC stands shoulder-to-shoulder with organizations committed to becoming Nature Finance Doers at Scale: Blue Ventures, BioFund, Conserve Global, Honeyguide, Kavango–Zambezi Transfrontier Conservation Area (KAZA TFCA), Nedbank, Rare, ReGeCom, Sanlam, SADC Transfrontier Conservation Areas, The Nature Conservancy, Wildlife Conservation Society (WCS), and WWF.

High Ambition Coalition for Nature and People Secretariat

Stakeholder Engagement and Inclusion

Capacity Gaps/Needs

Inclusive, community-driven processes and cross-stakeholder partnerships lead to enduring marine conservation outcomes. However, many local governments face challenges in facilitating meaningful stakeholder engagement, particularly in terms of convening diverse voices and fostering collaborative decision-making. This is often due to a disconnect between communities and the location of MPA management offices (i.e., MPA management is not localized), as well as challenges in securing adequate representation and early engagement from Indigenous communities and sovereign governments, or supporting grassroots leadership.

NGOs have stepped into this gap to act as key facilitators, helping to bridge divides and bring stakeholders together. However, building trust and multidisciplinary teams, and incorporating proven local solutions, remain undervalued. This can prevent the existence of a workforce pipeline that is inclusive of local voices and expertise from the beginning of the conservation process.

Community ownership is key. Often, communities are told what to do rather than asked what they want. This creates a vulnerability paradigm, where external actors define problems and solutions, leaving communities disempowered and dependent rather than resilient and self-determined. Conservation initiatives must be designed with and for the communities they affect, fostering whole-of-community approaches that are inclusive, sustainable, and rooted in local priorities. Through the Capacity Building Roadmap, the Coral Triangle Center is actively contributing to the enhancement of MPA stakeholder engagement and inclusion across the Coral Triangle,(see case study p.27).

There are critical gaps in the ability to scale capacity development for stakeholder engagement and inclusion in MPAs. Currently, there is no unified set of guiding principles or shared infrastructure to coordinate efforts without imposing rigid uniformity. Explicit, transparent, and collectively endorsed principles would build trust and accountability across diverse actors.

Alex Traveler/Adobe Stock

The absence of a structure linking regional or national hubs with local nodes also limits knowledge sharing and collaboration. Mechanisms such as peer-to-peer exchanges, pattern libraries, and communities of practice are largely missing, creating a need for structured platforms that enable learning across contexts.

Currently, successful efforts like Coral Triangle Center, 30x30 Southeast Asia Ocean Fund, and Rare operate at the regional level. There is a need for a larger network that connects these initiatives to improve MPA effectiveness and implementation efficiency through global collaboration with regional application.

Opportunities

- Support the initiation and coordination of a global network of organizations that develop and share capacity and can set standards, facilitate exchanges of information/knowledge sharing, and offer communication and training opportunities.
- Develop a set of clear, transparent, collectively endorsed guiding principles for stakeholder engagement and inclusion in MPA design and implementation.
- Initiate exchange programs between countries in different regions that share strategic priorities and could benefit from systematic knowledge transfer for the advancement of marine conservation (e.g., LAC and SEA).

// Case Study //

SUPPORTING LOCAL PRACTITIONERS THROUGH TRAINING AND LEADERSHIP

WHO

Coral Triangle Center (CTC)

WHAT

The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) Capacity Building Roadmap is a regional initiative designed to empower practitioners and advance long-term marine conservation goals, including the global 30x30 target. The roadmap outlines a five-year strategy built on four pillars: (1) Tools & Packages: Centralized training resources, scholarships, funding opportunities, and an online learning platform. (2) Systems for Catalyzing Leadership: CT Ambassadors Program to raise regional and global awareness. (3) Delivery on the Ground: Regional training hubs, internships/apprenticeships, and skill-sharing initiatives. (4) Mobilization of Peer Learning: Learning sites and exchange protocols to share best practices.

WHERE

Across the Coral Triangle region, encompassing six countries—Indonesia, the Philippines, Malaysia, Solomon Islands, Papua New Guinea and Timor-Leste—recognized as one of the most biodiverse marine areas in the world.

HOW

Through short, immersive training programs combining classroom learning, field trips, and post-training follow-up. The roadmap leverages regional hubs, peer learning networks, and leadership programs to build inclusive, scalable, and locally grounded conservation capacity—offering a replicable model for other regions. The CTC Academy offers online training on MPAs and sustainable fisheries, and CTC is developing a CTI-CFF repository that will offer more online training modules with partners in five languages used in the region.

IMPACT

More than 8,200 stakeholders—including government representatives, community leaders, NGOs, CSOs, academics, and private sector actors—have been trained through the CTC capacity-building programs since 2010, laying the foundation for coordinated, science-based marine conservation and governance across the region.

OTHER PARTNERS

CTI-CFF, WWF Coral Triangle Support Program.

Mike Workman/Adobe Stock

Data and Technology

Capacity Gaps/Needs

Despite growing recognition of the importance of data and technology in marine conservation, these elements are often left out of broader capacity development conversations. This oversight has led to significant gaps that hinder the effectiveness and scalability of conservation efforts, particularly in remote and underserved coastal regions.

Ultimately, there is a mismatch between the technology that exists and is being developed and the needs, skills, and interests of communities, governments, and other sectors. A primary challenge is the simplification and systematization of science and data collection. Reliable, accessible, and standardized data are essential for informed decision-making, yet many regions still struggle with fragmented or inaccessible scientific inputs, a challenge that is further amplified by technological inaccessibility. Many conservation areas lack affordable and reliable technological infrastructure, making it difficult to deploy tools that support monitoring, data collection, and analysis. In these regions, local pathways for developing capacity are underdeveloped, and there are few metrics to assess the impact of technology-based interventions.

Sesenta Segundos for Rare

Digital safety and trust are also concerns. Data storage solutions are perceived as insecure, which discourages sharing and collaboration. Moreover, the data and technologies that are available are often outdated, unverified, or poorly integrated with other knowledge systems, limiting their usefulness and relevance.

Technological and data literacy is another critical gap. Many stakeholders lack the skills needed to effectively use digital tools and apply data, and there are few opportunities for training or co-development of technologies and use-cases that reflect local needs and contexts. This disconnect results in tools that are not user-friendly or culturally appropriate, leading to the underutilization of available data, further reducing their adoption and impact. Both WildAid and Rare are addressing these deficiencies head on, strengthening coastal community trust in data and their capacity to collect and use it, (see case studies on p.29, p.30).

Finally, digital access must be improved. Without reliable internet and communication infrastructure, communities cannot fully participate in data-driven conservation initiatives. Bridging this digital divide is essential to ensure equitable participation and to support local actors with the tools and knowledge they need to protect marine ecosystems.

Opportunities

- Develop a network of organizations and individuals at the intersection of community-based management and MPA enforcement to inform best practice guides; understand data types and sovereignty; apply context-appropriate approaches, systems, and technologies; and connect communities for experience and knowledge exchanges.
- Build the data and technology literacy of local communities and support them with simple tools (developed locally or developed externally but integrated with local systems) and modern training that can support data collation, aggregation, and use.

// Case Study //

BUILDING TRUST IN TECHNOLOGY FOR MPA ENFORCEMENT

WHO

WildAid

WHAT

WildAid advances marine conservation by developing and implementing robust enforcement systems for fisheries and MPAs. Its approach emphasizes a structured approach to the law enforcement chain, including regulatory reform, technology access, capacity building, capital assets and operational support, sustainable funding, and community engagement to protect biodiversity and promote sustainable fisheries.

WHERE

19 countries, in South and Central America, the Caribbean, Africa, Asia, and the Pacific.

HOW

WildAid uses an enforcement system assessment tool to identify gaps across five themes: policies and consequences, surveillance and enforcement, training and mentorship, community engagement, and funding environment. Once completed, these assessments form the basis for the intervention strategy for a project. WildAid focuses on developing institutional cooperation as the foundation for effective enforcement, bringing on board technology partners to improve surveillance and data handling, and leveraging training and the donation of capital assets to build political support and institutional structures to sustain financing and operational commitments by governments and communities. One key feature of WildAid's capacity-building approach is ongoing mentorship, starting from the classroom training components and running all the way through to operational patrols on the water. This mentorship approach ensures that officers have the confidence to use the skills they have learned, even in high-pressure operational environments. These interventions are supported by a multi-prong community engagement model, which seeks to build support for conservation measures, engage communities in vigilance and reporting violations, and establish a culture of compliance among resource users. WildAid emphasizes peer exchanges and regional coordination where possible to build momentum around regional leaders and support durable cost-effective capacity development on an ongoing basis.

Wild Aid Staff

IMPACT

WildAid has delivered significant impacts across its project sites, from building a holistic surveillance and enforcement system to protect the Galapagos, to building robust undercover operations to disrupt US-based poachers in the Bahamas, to supporting community sea guardians and the national police to combat fishing with explosives in the Philippines. A summary is available in its annual report.

OTHER PARTNERS

Local communities, governments, enforcement agencies, and conservation NGOs. WildAid partners with other organizations working in resource management and conservation, bringing a focus on enforcement and compliance, to ensure effective delivery of conservation commitments.

// Case Study //

EQUIPPING COMMUNITIES TO MONITOR THEIR MARINE RESOURCES AND MPAS

WHO

Rare, and coastal communities across eight countries.

WHAT

Rare equips fishing communities with the skills, tools, and confidence to collect, interpret, and use fisheries, ecological, social, and financial data to manage their own coastal resources and protected areas. Through participatory monitoring and reporting systems—including participatory resource profiling, fish catch monitoring, ecological assessments, climate vulnerability analyses, and savings and financial tracking—communities gain the capacity to make informed, adaptive decisions about their fisheries and marine habitats.

WHERE

Community-led fisheries and protected areas in Brazil, the Federated States of Micronesia, Guatemala, Honduras, Indonesia, Mozambique, Palau, and the Philippines.

HOW

Through participatory catch monitoring, ecological assessments, resource profiling, climate vulnerability analyses, and financial tracking, communities gain the capacity to make informed, adaptive decisions that strengthen fisheries and protected areas. Rare has also built a number of community-to-insight data pipelines and platforms such as FishMAT, which convert raw inputs into actionable insights for communities and local governments.

FishMAT, the Fisheries Management Assessment Tool, supports coastal fisheries managers in monitoring fish stocks, analyzing catch and economic data, and generating science-based management recommendations. It centralizes catch records and organizes Managed Access Areas within a clear geographic hierarchy, then runs structured assessments that automatically calculate key ecological indicators such as catch per unit effort, total landings, trophic level, and size-based metrics. Results are presented through interactive dashboards with trend analysis and statistical testing, while built-in AI translates findings into plain-language insights and management guidance aligned with harvest control rules. The platform also enables streamlined data imports, report generation with executive summaries, multilingual access, and secure role-based permissions across sites.

Andriis Lonchak/Adobe Stock

Rare is also helping communities (a) design monitoring strategies, manage databases, validate results, and apply findings to update regulations and strengthen protected areas, and (b) build financial resilience and stewardship through savings clubs, financial planning, and digital transaction tracking. With the latter, fishers and fish buyers use simple digital tools to record daily transactions, creating verifiable financial histories.

IMPACT

FishMAT helps identify the key factors driving change in fisheries performance and supports evidence-based decision-making by integrating biological indicators, catch and economic data, and governance context within a structured assessment framework, translating results into clear management guidance aligned with harvest control rules.

OTHER PARTNERS

Rare's other community support tools increase participatory monitoring and governance, reduce pressure on fisheries, and support long-term stewardship.

Steven Paton/STRI

Socio-Ecological Integration

Capacity Gaps/Needs

Evidence shows that there is often a disconnect between the science that is conducted and the science that is needed for decision-making. Comprehensive understanding of a system and enduring, sustainable, and equitable outcomes cannot be achieved in the absence of social and ecological information; both components are essential. Similarly, marine conservation cannot succeed without a deep understanding of the socio-ecological systems in which it operates. Yet, current approaches often lack the integration needed to reflect the complex social and ecological relationships between biodiversity, food security, and the economic livelihoods that surround culture.

These three elements form a triangle of interdependence, and the lens through which we enter conservation conversations—whether biodiversity, food, or money—shapes the outcomes and priorities. Being intentional about this entry point is essential to ensure that interventions are inclusive, equitable, and culturally grounded.

There are significant gaps in the application of systems thinking to developing capacity for marine management, resulting in a mismatch between the challenges MPA managers face and the solutions they apply. Current approaches often address symptoms rather than the underlying drivers of the problems that marine managers need to overcome. This creates a need for frameworks that enable a deeper understanding of real-world dynamics before designing interventions.

There is also a gap in how interventions are connected to broader processes. Existing strategies rarely inform grant-making or the development of action plans in a way that reflects systemic insights. To close these gaps, there is an urgent need for interventions that are responsive to complex, interconnected challenges, and that guide both implementation strategies and funding decisions, (see case study p.32).

Opportunities

- Integrate social and ecological data for the assessment of impacts and outcomes, and to inform adaptive management processes, including social data within an already robust set of ecological and climate indicators and data sets to better assess the social outcomes of MPAs and OECMs.
- Combine social and ecological indicators to determine effectiveness and support tracking and accountability for progress towards 30x30 goals.

// Case Study //

GUIDING LOCAL CAPACITY BUILDING AND GOVERNANCE

WHO

MIHARI Network, working closely with LMMA communities across Madagascar and partners in the Western Indian Ocean region.

WHAT

For years, many capacity-building initiatives aimed to improve marine resource governance in LMMA communities. However, results remained limited: efforts were scattered, methodologies varied, post-training follow-up was rare, and activities were often too short-term to create lasting change. As a result, communities continued to face governance challenges, and learning was not consistently reinforced or shared.

To address this, the MIHARI Network, with support from partner organizations working in community-based marine management across Madagascar and the WIO region, initiated a national process to capture experience and consolidate lessons learned. This process identified best practices, highlighted systemic gaps, and organized the collective knowledge accumulated through years of engagement with LMMAs.

WHERE

Madagascar

HOW

The network analyzes recurring weaknesses in previous training approaches and develops structured, practical solutions tailored to local contexts. MIHARI, together with supporting partner organizations, created the National LMMA Capacity-Building Guide, a user-friendly and context-adapted tool that harmonizes training and strengthens local governance. This package is complemented by a performance and competency evaluation guide, skills transfer guides, and basic competency modules with tailored tools. Together, these materials promote continuous learning, peer-to-peer skill-sharing, and the professionalization of LMMA management.

IMPACT

The structured approach strengthens LMMA governance by providing communities with coherent, practical, and locally relevant tools. It improves the consistency and quality of training, encourages ongoing support, enhances knowledge transfer among community members, and contributes to better resource management, stronger local leadership, and more resilient coastal communities.

OTHER PARTNERS

Network members supporting LMMA communities across Madagascar and partners within the WIO region.

Dave/Adobe Stock

Communication

Capacity Gaps/Needs

Achieving marine conservation targets requires more than sound science and policy—it demands effective, inclusive, and culturally resonant communication strategies. Programs that lack these strategies often struggle to build the engagement, trust, and collective action needed for successful marine conservation.

A major challenge lies in the way data monitoring and conservation narratives are communicated. These are frequently presented in overly technical language—making them inaccessible to non-specialist audiences—and from the top down, where information flows from authorities without meaningful dialogue. This lack of clarity can alienate stakeholders and obscure the relevance of conservation efforts to their lived experiences. It can also erode trust and reduce buy-in from those most affected by conservation policies. Communication tactics need to be improved, including by reframing MPAs as shared value propositions (spaces that benefit biodiversity, livelihoods, and cultural heritage alike).

The current lack of shared MPA values adversely impacts the political will essential to advance marine conservation measures. Misunderstanding or ignoring the value and benefits of MPAs for the environment, society, and the economy can lead to underinformed policies and missed opportunities for impactful conservation. Shifting the MPA narrative in this direction can help broaden awareness, knowledge, and appeal, aligning environmental goals with economic and social development. Without culturally grounded storytelling and capacity-sharing narratives that reflect local values, traditions, and knowledge systems, conservation goals will remain disconnected from lived experiences.

Visual communication can help to bridge the gap between science and policy and local communities. Complex data is frequently presented in inaccessible formats, leaving diverse audiences disengaged. It is important to use infographics, maps, videos, and other tools that translate technical information into compelling, digestible content.

Behavioral campaigns also reveal a gap: many lack relatability and fail to inspire action. Campaigns designed around everyday realities, offering tangible, achievable steps for individuals and communities, can support impactful, inclusive marine conservation.

Collaboration remains fragmented. Many conservation actors operate in isolation, resulting in missed opportunities for synergy. There is a critical need for strategies that build communication capacity to shift mindsets, foster interdisciplinary collaboration, and leverage collective support. This includes creating spaces for dialogue, co-creation, and shared learning where diverse voices are heard and valued.

Addressing these gaps is not simply a technical challenge—it requires a cultural shift. Inclusive, creative, and collaborative communication strategies are essential to build trust and momentum toward meeting marine conservation targets both effectively and equitably.

Opportunities

- Showcase success stories using compelling narratives, local stakeholder voices, visual tools, and other accessible media.
- Align science with local cultural values.
- Support and inform the initiation of a global marine conservation communication campaign (with tailorable components to meet regional needs) to demonstrate the value of the world achieving the 30% target (climate, biodiversity, human health).
- Report publicly on progress for accountability and to level the playing field.

Conclusion

The case studies featured in this report demonstrate that local organizations are at the forefront of developing and sharing capacity, paving the way across multiple areas critical to achieving the effective implementation of the marine 30x30 target. These organizations consistently emphasize that coordination is essential and actively seek ways to collaborate, share knowledge, and build together.

Policies and standards for tracking and reporting on MPA implementation, led by governing bodies but including and guided by local voices, alongside transparency from funders, can strengthen accountability and access to resources for action. However, scaling solutions remains challenging because regional context is so important. And, as conservation outcomes do not happen overnight, longer-term, localized, systemic, and patient investment is needed.

Despite progress over the past six years, efforts have not reached the pace, scale, or quality required to effectively conserve 30% of the ocean by 2030. There is a pressing need to revisit and reframe approaches to MPA and OECM implementation, while scaling successful models and centering capacity development—and the people driving it.

We have the knowledge and tools to succeed. By developing capacity that supports people to engage in spaces where decisions are made, we can cultivate the competencies and provide the system-level transformations needed for action.

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