Coral Reef
Rescue Initiative

Partnership Progress Report | '25

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A Planetary Imperative

Coral reefs are the rainforests of the sea, cradling nearly a quarter of all marine biodiversity. They shield coastlines from storms, underpin the livelihoods of hundreds of millions of people through fisheries and tourism, and are an indispensable part of Earth's climate-resilience infrastructure. Their significance is truly global.

Yet, this vital ecosystem faces a crisis of unprecedented scale. The escalating threats of climate change – manifesting as relentless ocean warming and acidification – combined with biodiversity loss and local pressures from pollution, overfishing, and unsustainable development, have pushed reefs to the brink. It would be easy to succumb to despair, but the Coral Reef Rescue Initiative (CRRI) was born from a different, far more powerful emotion: *determination*. We acknowledge the urgency, but we choose to act with coordinated speed and unwavering hope.

The foundation of our approach is the sharing of robust science and a deepening learning across societies. Building on pioneering efforts like the 50 Reefs Project, we have meticulously identified and prioritised sites with the highest potential for survival and recovery under future climate scenarios. But science alone is not enough. The CRRI model is fundamentally holistic and inclusive, recognising that successful conservation hinges on the full participation and support of the people who depend on coral reefs. This type of approach has been supported and enabled by Global Environment Facility (GEF) funding as well as other organisations such as the University of Queensland, CARE International, and many others.

This report celebrates the significant, collaborative achievements across our focus countries: Cuba, Fiji, Indonesia, Madagascar, the Philippines, Solomon Islands and Tanzania. These successes are a testament to our core philosophy: the shift to more inclusive conservation models and locally driven resilience building.

The true measure of our success is the voice of the frontline reef custodians, local communities, and Indigenous leaders. They are the knowledge-holders, and their commitment turns a global strategy into a daily reality.

Our next phase is a critical opportunity to scale this model, deepen our partnerships, and align with ambitious global targets like those outlined in the Paris Agreement and the 30x30 goal of the Global Biodiversity Framework. What is at stake are the tipping points – the moment when recovery becomes impossible. We must not allow that to happen. Resilient reef solutions are available today, but they require sustained, strategic investment.

We call on policymakers, funders, and scientists to champion sustainable financing models, advance enabling policies, and prioritise investment in local scientific and technical capacity. Scaling reef resilience requires not only global commitment, but deep, country-level support that empowers frontline institutions and communities.

Coral reefs are among the most vulnerable ecosystems on Earth, and they are also among the most critical. Their survival is not just a scientific concern – it's a planetary imperative. It is literally now or never.

Professor Ove Hoegh-Guldberg AC FAA
Chief Scientific Advisor for CRRI

Acknowledgements

Authors: Gretchen Lyons, Magali Rochat, Rachel Sapery James

This report is the result of the collective efforts of many individuals and organisations whose dedication and expertise have shaped the Coral Reef Rescue Initiative (CRRI) over the years.

We extend our deepest gratitude to current partners – The Australian Institute of Marine Science (AIMS), CARE International, PALO IT, Rare, the University of Queensland (UQ), Wildlife Conservation Society (WCS) and the World Wide Fund for Nature (WWF) – who reviewed this report, provided valuable input, and contributed to the lessons, events, and products documented here. Your insights and collaboration have been instrumental in capturing the breadth and depth of CRRI's journey.

We especially honour the community members and leaders at every level who have generously shared their time, knowledge, and lived experience. Your commitment to coral reef conservation and resilience continues to inspire and guide this initiative.

We also thank the donors and funders – Associacao IEP/Associacao Para Educacao Sude Arte (AIEP), Great Barrier Reef Foundation (GBRF), Global Environment Facility (GEF), WWF International, MAVA, WWF-Netherlands and WWF-UK – who have supported CRRI at different stages since its inception. Your sustained investment has enabled innovation, partnership, and progress across regions and generations.

Together, these contributions reflect a shared vision for thriving coral reef ecosystems and resilient coastal communities.

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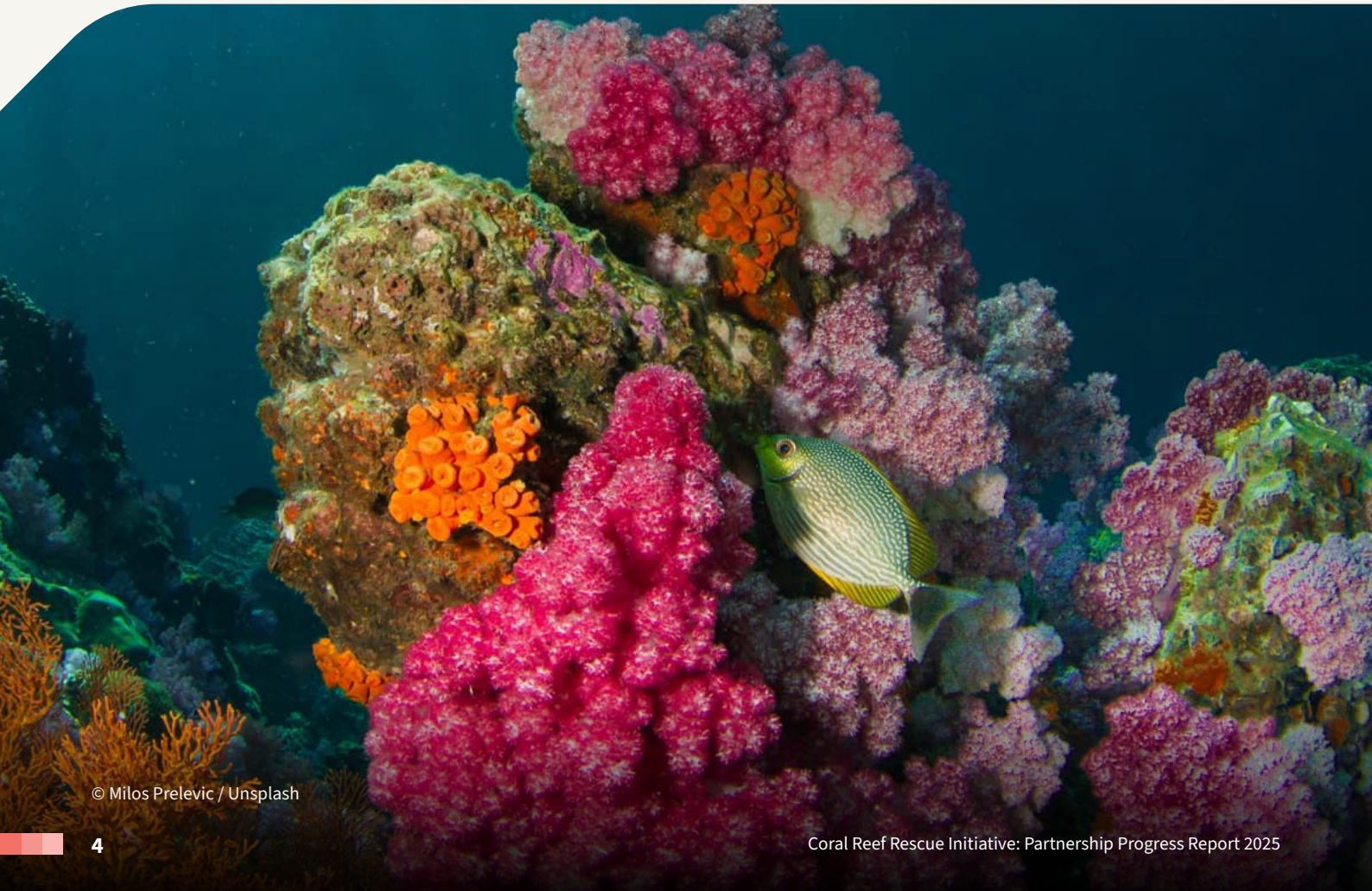

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CRRI Partners

CRRI is a global programme partnership between eight organisations: Australian Institute of Marine Science (AIMS), CARE International, the Global Environment Facility (GEF), PALO IT, Rare, the University of Queensland (UQ), Wildlife Conservation Society (WCS) and the World Wide Fund for Nature (WWF). Together, we are combining science, community engagement and innovation to protect one of the planet's most vital ecosystems.

AIMS's ReefCloud is an open-access platform that provides a fast, up-to-date snapshot of coral reef condition to inform reef management decisions. Using machine learning and advanced analysis, ReefCloud rapidly extracts information from images of coral reefs anywhere in the world, then quickly and efficiently collates this data to be shared.

CARE is a global dual-mandate agency working in humanitarian action and human development. CARE works with partners in 121 countries, reaching 58 million people through more than 1,450 development and humanitarian projects. Over half of those reached – 55% – are women and girls.

The **GEF** includes several multilateral funds working together to address the planet's most pressing challenges in an integrated way. Its financing helps developing countries address complex challenges and work towards meeting international environmental goals. Over the past three decades, the GEF has provided more than US$26 billion in financing, primarily as grants, and mobilised another US$153 billion for country-driven priority projects.

PALO IT is a global innovation and technology consultancy that partners with corporations, NGOs, and governments to design and build sustainable digital solutions that create positive impact. With deep expertise in AI, ESG data, agile transformation, and human-centered design, the company helps organisations accelerate responsible growth and tackle complex challenges across sectors.

CRRI gratefully acknowledges past partners Arizona State University's Center for Global Discovery and Conservation Science, Blue Ventures and Vulcan, Inc. who supported the early development of the initiative.

Rare inspires change that so people and nature thrive. Working at the intersection of conservation, sustainable development and social change, Rare is the global leader in using principles of behaviour change to design people-centred approaches and achieve lasting results. Rare has partnered with local leaders in over 60 countries to protect nature and the people, communities and livelihoods it sustains.

Ranked in the world's top 50, **UQ** is a leading research and teaching institution, with over 6,000 research groups and cutting-edge facilities. The university is the key science partner for CRRI. Additionally, UQ's International Development unit is the lead executing agency for the GEF Coral Reef Rescue (CRR) Project and its School of the Environment is the global Knowledge and Networks lead for the project.

Headquartered in New York City, **WCS** was founded in 1895 as the New York Zoological Society. They run around 500 field conservation projects in 65 countries worldwide, covering more than 2 million square miles of wild places. WCS uses scientific knowledge to engage and inspire decision-makers, communities and their millions of supporters to take action to protect the world's wildlife.

WWF is an independent conservation organisation with over 30 million followers and a global network active in nearly 100 countries. Their mission is to stop the degradation of the planet's natural environment and build a future in which people live in harmony with nature. WWF works to achieve this ambition through multiple projects, aimed at conserving biological diversity; promoting the use of sustainable, renewable natural resources; and advocating the reduction of pollution and wasteful consumption.

CRRI Partnership Progress At-a-Glance

Inclusive conservation:
CRRI's model has prioritised transparency, participation and coordination, with the National Hubs serving as the foundation for sustainable coral reef conservation and management in five of the seven priority countries (Fiji, Indonesia, Madagascar, Solomon Islands and Tanzania).

Ecological Surveys:
Major surveys completed with local experts and community partners in Cuba, Fiji, Indonesia, Madagascar and Tanzania, providing critical baseline data for management and funding. CRRI has championed the adoption of artificial intelligence-based monitoring, with AIMS's ReefCloud and WCS's MERMAID platforms providing scalable tools to support standardised monitoring across sites.

Knowledge Hub & Online Courses:
In collaboration with partners, UQ developed a suite of free online courses through the GEF Coral Reef Rescue (CRR) Project, reaching nearly 1,600 learners to date globally and supporting capacity building in project countries.

Funding:
The partnership has secured a US$7.8 million grant from the GEF to establish National Hubs in six of the seven CRRI countries (Fiji, Indonesia, Madagascar, the Philippines, Solomon Islands and Tanzania) and funding from private donors, supporting both core operations and country-level projects.

Advocacy & Policy:
CRRI has participated in over a dozen high-level global and regional advocacy forums and technical workshops, including UN Ocean Conferences and biodiversity and climate COPs.

Blue Economy:
Developed "reef-positive guidelines," supported business plans for community enterprises, and advanced national blue economy strategies.

Gender & Social Inclusion:
CARE led the integration of locally contextualised and culturally sensitive gender-transformative approaches, conducting literature reviews, technical guidance, and workshops; other partners have led additional workshops and trainings.

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CRRI Concept and Context

CRRI is a science-led, partnership-based programme that seeks to secure the long-term survival and functional recovery of coral reef systems by prioritising protection of "regeneration reefs." These reef areas possess a combination of attributes – they are relatively less exposed to climate change, ecologically tolerant, and well connected to neighbouring reefs – that could enable them to act as future seed banks.

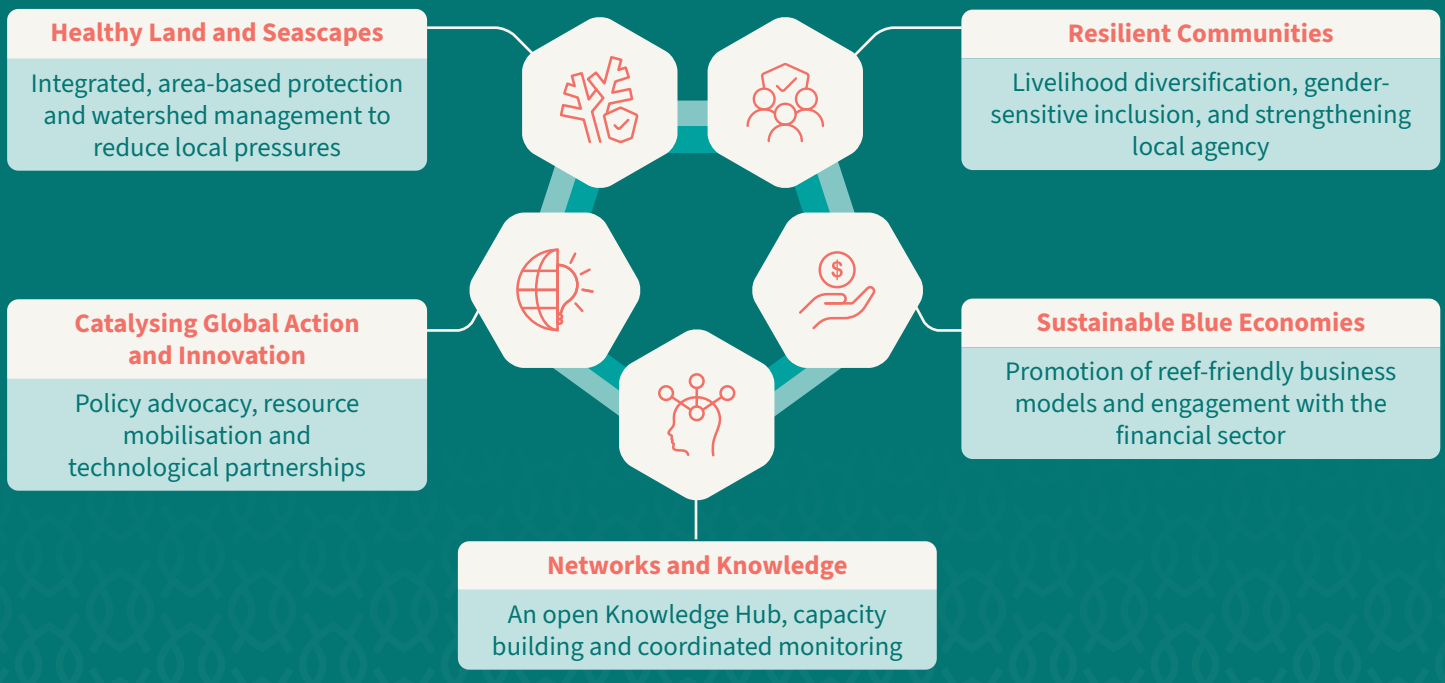
The CRRI concept is both bold and pragmatic. It rests on directing finite conservation resources toward sites with the greatest probability of surviving in a warmer ocean and reseeding other reefs. It also explicitly links ecological objectives with the social and economic well-being of reef-dependent communities.

From the outset, CRRI's strategy focused not just on securing funding, but on reshaping the global investment landscape for coral reef conservation. The relationship with the Global Environment Facility (GEF) was deliberately cultivated over years of dialogue, alignment, and trust-building. The resulting GEF Coral Reef Rescue (CRR) Project represents a significant milestone for the initiative, laying a strong foundation for future progress and broader impact. It reflects a shared vision cultivated across nations. Forged through persistence and a commitment to inclusion, it signals to donors and stakeholders that coral reef resilience is now firmly on the global agenda.

Our Goal

By 2030, at least 5,000 km² of globally significant coral reefs within priority seascapes across seven countries will be conserved or secured through inclusive, equitable approaches that enhance coastal resilience, livelihoods and sustainable economies.

Implementation is organised through five complementary components (see Section 2 for more detail).



Adaptive management, monitoring, and environmental and social safeguards are embedded throughout.

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The global scope is so important in order to have an integrated, holistic understanding of the status of coral reefs in different parts of the world, This is one of the main achievements of CRRI. Usually, even multi-country projects are in one geographical area. CRRI took on the challenge of including these distinct geographic areas, and that is one of its most successful aspects.

Professor Patricia González-Díaz

Centre for Marine Research at the University of Havana and lead researcher for Jardines de la Reina National Park (JRNP)

CRRI's selected regeneration reefs were identified through UQ's "50 Reefs Project", which aimed to support long-term strategies for coral reef conservation. They are located in Cuba, Fiji, Indonesia, Madagascar, the Philippines, Solomon Islands and Tanzania, with specific sites selected by stakeholders.

The strategy is explicit about risks – ongoing ocean warming, governance weaknesses and inequity – and addresses these through safeguards, community-driven design, capacity building, and institutional pathways to scale and sustain impact.

Close to 70% of the coral reefs that have been least exposed to climate change are found in just seven countries.

Governance structures and a unified monitoring, evaluation and learning (MEL) system are two areas ripe for further development in future phases of CRRI. The partnership envisions a structure for the initiative that includes a Global Coordination Team responsible for the day-to-day leadership, coordination, policy advocacy and engagement, Regional Advisory and Implementation Committees to develop regional work plans and share progress and performance, lessons and experiences, and a Global Steering Committee comprised of representatives from government, civil society, academia and the private sector responsible for oversight and strategic guidance, as well as serving as ambassadors of CRRI within their own organisations and countries.

These complementary teams will work to support those on the frontlines in sites as well as newly established National Hubs.

Climate & Biodiversity in Crisis

The scientific consensus is clear: Human activities such as burning fossil fuels, habitat destruction and overexploitation of natural resources are driving the interlinked climate and biodiversity crises. The Intergovernmental Panel on Climate Change (IPCC) has said that warming, extreme weather and ocean changes are now widespread, rapid and intensifying, while the capacity of natural and human systems to adapt is being eroded.

The effects of these opposing and accelerating trends are already evident and are raising the probability of irreversible harms if emissions are not sharply reduced in line with the Paris Agreement, and the loss of nature is not halted and reversed by 2030 – in line with the mission of the Kunming-Montreal Global Biodiversity Framework.

The 2024 Living Planet Report crystallises the scale and speed of decline in biodiversity: monitored vertebrate populations have fallen on average by about 73% since 1970, and the report cautions that multiple ecosystems are approaching climate-driven tipping points with grave consequences for food security, livelihoods and planetary stability unless transformative policy, consumption and finance changes occur swiftly.

Together these analyses and agreements imply three practical priorities: (1) deep, near-term emission reductions to limit magnified climate risk and reduce the likelihood of crossing ecological thresholds; (2) rapid expansion of effective, equitable area-based conservation and systemic measures to reduce direct drivers of loss (land-use change, pollution, unsustainable extraction); and (3) large-scale alignment of finance, governance and social equity so nature-positive transitions are both feasible and just.

Given the magnitude of the challenge, we must respond with bold action at scale. Incremental or fragmented responses are insufficient for the task: only integrated, rapid action across mitigation, adaptation and biodiversity conservation can materially reduce risks to people and the living systems they depend upon.

Coral Reefs: Unique Threats and Implications

Coral reefs are uniquely vulnerable because they depend on narrow climatic, chemical and ecological conditions. The IPCC reports that warming and ocean acidification have already increased the frequency and severity of mass coral-bleaching events and that most reef systems will experience very high risk under continued warming. The record-shattering marine heatwave that started in 2023 and triggered a global mass coral bleaching event in 2024 give further credence to the IPCC's modelling and predictions.

The Living Planet Report warns that reefs are among the ecosystems nearest to tipping points: repeated bleaching, compounded by local pressures, such as overfishing, pollution and coastal development, erodes reef structure, reduces biodiversity and collapses the fisheries and tourism economies that many coastal communities depend on.

If coral reefs largely disappear, the implications are profound and cascading. Ecologically, loss of three-dimensional reef structure would mean drastic reductions in marine biodiversity and the collapse of reef-dependent food webs. For people, reefs' values – nearshore fisheries, cultural identity, tourism income and natural coastal defence against waves and storms – would vanish or be sharply diminished, increasing food insecurity, economic loss and exposure to coastal hazards for hundreds of millions of people.

CRRI exists to conserve the world's rapidly deteriorating tropical coral reefs and the benefits they provide against climate change and other threats.

> *Even in the face of extreme heat and back-to-back bleaching events, we're seeing pockets of reef resilience 'refuges' – places where corals are surviving, still thriving, adapting, and even recovering. These reef refuges must be prioritised for protection, monitoring and research.*

Rachel Sapery James
CRRI Lead CRRI Lead

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CRRI Key Components

The components and partnerships that comprise CRRI are designed to deliver measurable conservation impact – improved health and resilience of coral reef ecosystems – and create enabling conditions to support these results in a future shaped by climate change. The near-term and long-term aims of CRRI require deeply inclusive processes. There are no quick fixes for the grave threats to coral reefs globally, and solutions must be aligned to the needs and aspirations of reef-dependent communities. The 2025 evaluation report of CRRI prepared by MCC Sustainable Futures and C2O found, "The virtue of CRRI is that it acknowledges that coral reefs have intrinsic value but are also critically important for society, bringing together nature and people." The components described here reflect that core tenet of CRRI.

Healthy Land & Seascapes

Priority land and seascapes for climate-resilient and connected coral reefs are effectively and inclusively managed and conserved through integrated multi-stakeholder processes in a changing and uncertain environment.

This component seeks to address common barriers to effective management of marine protected and conserved areas (MPCAs), such as the inadequate engagement of local communities, lack of sustainable access to physical, human, and financial resources, as well as governmental and political support.

2023

- **UQ began executing the four-year GEF CRR Project (US$7.8 million) in April**, enabling coordinated conservation activities and capacity building across multiple countries, laying the groundwork for measurable improvements in coral reef health and resilience.

The GEF CRR Project is the key Phase I implementation component of CRRI. Extensive project documentation is available online, and we encourage readers to learn more via GEF, UQ and WWF.

2024

- **Through the GEF CRR Project, sub-executing country partners initiated National Hubs in five countries** (Fiji, Indonesia, Madagascar, Solomon Islands and Tanzania), establishing local platforms for collaboration, stakeholder engagement and context-specific adaptation strategies to strengthen coral reef management.

2024-25

- **Completed reef surveys in Cuba, Fiji, Indonesia, Madagascar and Tanzania**, which provided essential scientific data for monitoring ecosystem changes and informed the development of targeted conservation and restoration interventions.

2025

- **Submitted a full Green Climate Fund (GCF) proposal for a 10-year (US$46.3 million) project in Fiji**, which – if approved – will secure long-term funding for climate-resilient reef management and community-driven adaptation initiatives.
- **UQ and the Department of Environment and National Resources in the Philippines signed the operational partnership agreement in May**, representing a key preparatory step toward the future establishment of a National Hub for coral reefs that will support research, capacity building, and coordinated action under a national action plan.
- **Global Fund for Coral Reefs (GFCR) approved proposal for a four-year (US$4.3 million) blue economy project** in Solomon Islands to unlock sustainable livelihoods and enhance reef conservation through innovative business models.

Resilient Communities

Women, men and youth in CRRI sites are more resilient to shocks and stresses, with improved and diverse livelihood options, health and agency.

This component recognises that much of the pressure on coral reefs arising from unsustainable use of natural resources by local communities is often a reflection and consequence of limited livelihood options, high levels of dependency on the natural resource base, inequity and weak governance, and communities' limited ability to influence management decisions about those natural resources they depend on. Work under this component also aims to build communities' resilience to shocks and stresses, and capacity to manage risks and transform their lives and livelihoods in response to new hazards and opportunities.

2017-24

- **Completed Climate Vulnerability Assessments (CVAs) in Cuba, Fiji, Madagascar, the Philippines and Solomon Islands**, which – aside from fulfilling the requirements of funding proposals – enabled local stakeholders to identify priority risks and develop targeted adaptation strategies to bolster community resilience against climate change impacts.

2024

- **CARE published a series of technical and policy resources** on "Gender Equity in Coral Reef Socio-Ecological Systems," which raised awareness of gender disparities in resource management and provided stakeholders with practical tools to implement more effective and inclusive coral reef conservation strategies.

2025

- **Piloted a Committee Strengthening Programme in Dogotuki District, Fiji**, which aims to improve governance, transparency, and community participation in resource management, support more cohesive decision-making and increase trust among local stakeholders.

> *Coastal resource users, Indigenous communities, and coastal stewards are already driving innovative, place-based solutions. Their deep knowledge and leadership are vital to lasting cli-mate resilience.*
>
> **Rachel Sapery James**
> CRRI Lead CRRI Lead

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Sustainable Blue Economies

Business models and approaches in priority regions and countries are transformed to sustainable blue economy models with climate-resilient businesses supporting inclusive conservation.

The third component positions CRRI to take advantage of the opportunities offered by the growing interest in blue economies around the world, while influencing the way in which these economies develop to ensure that they are sustainable. This work brings together stakeholders to influence the ways in which public and private processes are governed, designed and implemented, ensuring that local communities are better positioned to engage and benefit.

2024

- **WWF-Madagascar, WCS, and the Ministry of Environment integrated CRRI and the Madagascar National Hub into the Blue Economy Cluster** to foster coordinated, cross-sectoral management of ocean resources. This integration has strengthened collaboration, improved knowledge sharing, and supported more effective, sustainable reef-related economic development in Madagascar.

2024-25

- **Developed reef-positive investment guidelines and a marine revolving fund concept** during a nine-month appointment of the Sustainable Blue Economy Consultant from McKinsey, supporting sustainable financing for coral reef conservation.

2025

- **Terranomics conducted a benchmarking study for the GEF CRR Project in Fiji, Indonesia, Madagascar, the Philippines, Solomon Islands and Tanzania** to identify best practices and lessons that could inform the design and implementation of sustainable blue economy initiatives and strengthen coral reef conservation across these countries.

Reef-Positive Investment

The reef-positive guidelines launched in 2025 have markedly advanced capacity building and the effectiveness of reef conservation finance across CRRI focal countries. Delivered through an online seminar and accessible via the Knowledge Hub, these practical guidelines provide country teams and partners with tested tools and frameworks to identify, assess, and support reef-positive businesses. As a direct result, teams are better equipped to foster sustainable enterprises that generate reliable livelihoods for coastal communities while advancing coral reef protection.

Importantly, the guidelines are designed to help stakeholders address the significant funding gap, estimated at US$12 billion, that currently exists in coral conservation. By outlining strategies for mobilising resources and connecting reef-friendly start-ups with investors, the guidelines support stakeholders to close this critical financial shortfall.

Blue Economy Initiatives

The benchmarking study by Terranomics found that successful sustainable blue economy initiatives rely on community engagement, inclusive planning, technical support, capacity building, knowledge sharing, innovation, and community-led development. It also highlighted the importance of blended finance, risk mitigation, and better alignment between small businesses and investors to attract private investment. These insights will help National Hubs shape national strategies and policies that meet both community and investment needs.

Knowledge and Networks

Communities, governments, development partners and researchers have access to the right information at the right time to take the necessary steps to safeguard coral reefs that contribute to coastal resilience, livelihoods and sustainable economies.

This component ensures that partners and stakeholders in the initiative are able to generate knowledge and access information and evidence to advance the planning and delivery of components 1, 2 and 3.

2022-24

- **Supported AIMS with regional capacity building for coral reef monitoring** through ReefCloud workshops, training sessions, and collaborative planning across the Pacific and Indonesia, which led to strengthened technical skills and enabled quicker and more efficient collation and sharing of data, directly informing better reef management decisions.

2023

- **Launched the open-access online Knowledge Hub, supporting research, teaching and learning for conservation and community development action**, which resulted in a centralised platform for sharing best practices and resources, making it easier for communities and practitioners to access up-to-date information and tools.
- **Through the GEF CRR Project, UQ released the first online course, "CRRI101x Coral Reefs: Introduction to Challenges and Solutions"** in English and Bahasa Indonesia, which enabled a broader audience to build foundational knowledge about coral reef ecosystems and threats, with positive feedback including increased accessibility for learners in the region.

2025

- **Through the GEF CRR Project, UQ developed two more online courses "CRRI103x Coral Reefs: Sustainable Blue Economy" and "CRRI104x Coral Reefs: Climate Resilient Communities"** available in both English and Bahasa Indonesia, which expanded training opportunities and equipped participants with practical tools for advancing sustainable livelihoods and climate resilience in their local communities.

New Tech and Platforms

MERMAID (Marine Ecological Research Management AID) is an online-offline open-source platform for coral reef data developed in partnership between WCS, WWF, and Sparkgeo. It aims to speed sharing of quality data to create transparency around coral reef health and equip people and institutions with the information they need to take action to save reefs. In June 2025, MERMAID AI Image Classification (Beta) was launched in partnership with CoralNet, allowing users to analyse and integrate photo quadrat data directly in MERMAID, making coral reef monitoring faster, smarter, and more seamless than ever. In 2024, CRRI contributed to the development and launch of a training video on a rapid bleaching assessment on the MERMAID platform with over 200 views. Across the seven CRRI countries, over 30 trainings have been delivered and more than 300 people trained directly in MERMAID skills, data workflows, and monitoring methods.

Developed by AIMS with additional funding from the Australian Department of Foreign Affairs and Trade, ReefCloud is an open-access platform designed to quickly and efficiently collate and analyse data to improve decision-making and inform conservation across the world. The platform uses AI-powered image processing to enhance coral reef monitoring and support global collaboration for researchers, delivering faster and more reliable insights for reef management. CRRI has engaged with ReefCloud to train collaborators, standardize data protocols, and streamline monitoring efforts. By integrating ReefCloud, CRRI has strengthened data reporting and supported more effective conservation planning within its projects.

PALO IT developed the CRRI Data Management Ecosystem, piloting digital solutions for data collection, analysis, and reporting. The pilot implementation of this approach provided valuable insights into its adaptability to technology and user-friendliness compared to more traditional methods. While some initial challenges were encountered, the trial has been instrumental in identifying key gaps and areas for improvement – particularly in refining the MEL framework, monitoring processes, and metrics for CRRI as we move into Phases II & III.

These learnings will directly inform the ongoing strategy refresh, enabling us to streamline monitoring indicators and enhance our ability to capture meaningful impact. A key takeaway from the pilot was the critical importance of user-friendly design, especially for successful deployment across diverse contexts. We're committed to leveraging these insights and are actively working to strengthen usability and accessibility moving forward.

Online Learning

UQ, with funding from the GEF, has developed three free online courses to support the conservation of climate-resilient coral reefs and the aims of the GEF CRR Project and the broader CRRI. These courses are available in both English and Bahasa Indonesia on the project's online learning platform. Co-designed with AIMS and WCS, the fourth online course "Coral Reefs: Data and Monitoring" is expected to be launched at the end of 2025. It will explore key principles of data collection, analysis, and interpretation to support evidence-based decision-making for coastal and marine ecosystems.

"Coral Reefs: Introduction to Challenges and Solutions" provides critical insights into the threats facing coral reefs and the innovative solutions being developed to protect them. "Coral Reefs: Sustainable Blue Economy" invites learners to understand and analyse the blue economy in their own context, understanding the risks associated with business as usual for coral reef ecosystems and the planet. Learners are then guided to explore opportunities for transitioning toward a more sustainable, reef positive, blue economy.

"Coral Reefs: Climate Resilient Communities" was developed in collaboration with CARE and guides the participant through CARE's Climate Vulnerability and Capacity Analysis process, providing practical tools to assess a community's climate risks and capacities. Nearly 1,600 people have enrolled in the courses so far.

> ***The CRRI101x:***
> *Coral Reefs – Introduction to Challenges and Solutions course was both engaging and insightful. It offered a clear overview of coral reef ecosystems, their immense ecological and socio-economic value, and the urgent threats they face. I particularly appreciated the focus on practical conservation strategies and the inclusion of real-world examples, which added depth and relevance to the learning experience. This course has strengthened my understanding of reef resilience and conservation planning, which will be highly valuable in my academic and professional journey in the field of coastal and marine resource management.*
>
> **Course Participant**

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Catalysing Global Action & Innovation

CRRI accelerates change through global advocacy, expanding reach, constituency and partnerships for sustained impact, scaling up knowledge to replicate successes, and ensuring coordinated and efficient delivery and monitoring of the programme.

Component 5 is focused on building the necessary capabilities and conditions for both near-term impact and long-term transformational change. This includes maintaining momentum and political will to support coral reef protection and restoration, as well as enabling innovation to create solutions appropriate to shifting realities and diverse contexts.

CRRI is active at global forums, working with governments and partners to raise the profile of coral reefs and reef-dependent communities:

2021

- **UNFCCC COP26**
  Hosted a hybrid seminar "Closing the Funding Gap: Innovations for Investing in Nature-based Solutions in Coral Reef Conservation".
- **Cultivating Equality Conference**
  Presented CARE and the ARC Center of Excellence for Coral Reef Studies work on Gender Equality in Coral Reef Social-ecological Systems.
- **Economist World Ocean Summit Asia-Pacific**
  CRRI Lead spoke on a panel for an event on marine protected areas.

2022

- **Asian Development Bank Sustainable Oceans & Technology Conference**
- **UN Ocean Conference**
  Co-hosted a high-level breakfast event "The Last Stand for Coral Reefs".
- **UNFCCC COP27**
  Co-hosted event "Adaptation Solutions for Coral Nations".
- **CBD COP15**
  WWF released "WWF COP15 Marine and Coastal Biodiversity Expectations".

2023

- **WWF contributed to the Coral Reef Breakthrough targets**, supporting global efforts to accelerate the protection and restoration of climate-resilient coral reefs by 2030.

2024

- **CBD COP16**
  Co-hosted official side event "The Road from Cali to Belém – The Last Stand for Coral Reefs".
- **Launched the Coral Reef(in) sight Project**, which aims to leverage artificial intelligence to advance innovative solutions for coral reef management.
- **WWF launched "Untangled: Marine Heatwaves" video** in English and Bahasa Indonesia; French added in 2025, aiming to raise public awareness and inspire action on the urgent threat of marine heatwaves to coral reef ecosystems across diverse audiences.

2025

- **UN Ocean Conference**
  WCS, WWF and The Nature Conservancy launched the Commitment to Protect Climate Resilient Coral Reefs.
- **COP30 Belém (2025)**
  WWF plan to co-host event "Coral Reefs at the Climate – Action Frontline: Science, Finance, and Communities for a Resilient Future" and WCS plan to host event "Frontline Voices: Stories from Science and Communities".
- **UNEA (2025)**
  WCS plans to host events around the Commitment to Protect Climate Resilient Coral Reefs.

Regional Forums

- **SPREP Pacific Coral Reef Talanoa** (July)
- **ReefCloud Pacific Workshop** (August)
- **Coral Reef(in)sight Managers and Practitioners Workshop** (August)
- **Pacific Island Oceans Conference** (September-October)
- **Western Indian Ocean Marine Science Association Symposium** (September-October)

At the 2025 United Nations Ocean Conference (UNOC3), CRRI focused on catalysing global action to deliver the 30x30 target of the Kunming-Montreal Global Biodiversity Framework through inclusive, science-based marine protection, scaling ocean-based climate solutions, and mobilising finance for a sustainable blue economy. CRRI emphasised the importance of equity, Indigenous leadership, and cross-sector collaboration to ensure lasting impact for people and nature. CRRI's advocacy and policy influence efforts at UNOC3 were manifested through three main activities, in addition to many bilateral and partner discussions:

- **Co-hosting an official Blue Zone side event with WCS, The Nature Conservancy, WWF and the government of Papua New Guinea at which 11 governments united to sign a bold new pledge to safeguard coral reefs with the best chance of long-term survival in the face of climate change.**

  This is the first political commitment to protect climate-resilient coral reefs ahead of the 2030 global biodiversity targets. Signatories include the Bahamas, Belize, France, Indonesia, Madagascar, Palau, Panama, Papua New Guinea, Solomon Islands, Tanzania, and Vanuatu. Each participating member state had the opportunity to sign the commitment publicly, in the presence of the audience and media. The commitment signed at UNOC3 was officially registered as a new Voluntary Ocean Commitment on the United Nations Platform, reinforcing its global significance and accountability. The partnership now aims to gather more momentum with the goal to achieve government signatories from at least 31 countries with up to 90% of the world's coral reefs by COP31 of the United Nations Framework Convention on Climate Change (UNFCCC).

- **Co-hosting a subsequent celebration event on the Blue Panda yacht in Nice harbour with partners, donors and ministry representatives.**

  The gathering was an opportunity to strengthen global network alliances, convene meetings and bilateral discussions, and re-establish connections with the global coral reef community, donors and partners of the Coral Commitment and CRRI.

- **Co-hosting a Green Zone side event, "The Road from Nice to Belem: The Last Stand for Coral Reefs" in the #ForCoral Pavilion with WWF-Brazil, The International Coral Reef Initiative (ICRI) and other partners.**

  The event emphasised the critical role these ecosystems play in supporting biodiversity, climate resilience, coastal communities, and local economies, underscoring the deep interconnection between climate, nature, and people.

  The event strategically built on the foundations laid during the "Road from Cali to Belém" side event at the sixteenth Climate and Biodiversity Conference of Parties (CBD COP16) in Cali, Colombia, in 2024. At CBD COP16, CRRI emphasised the urgency of integrated action between the CBD and the UNFCCC processes, spotlighting the need for climate-focused investment strategies for coral reef conservation. UNOC3 advanced this agenda by showcasing Brazil's launch of its National Coral Reef Strategy (ProCoral), reinforcing the call for embedding coral reef protection into national climate and biodiversity frameworks.

In September 2025, WCS formally launched its 2025-2030 Coral Reef Conservation Strategy, a landmark global plan to secure the future of coral reefs under changing climate conditions. Rooted in over 40 years of experience and new science, the strategy centers on High Integrity Climate-Resilient Reefs (HICOR) – reefs with sufficient live coral cover, species diversity, and biomass to avoid, resist, and recover from climate shocks. The strategy outlines three core goals: (**1**) to understand and map HICORs globally, (**2**) to safeguard these reefs via integrated conservation action, and (**3**) to connect people and systems to drive broader change. In addition to the coral commitment launched at UNOC3, by 2030, WCS and partners aim to deliver a global HICOR map, support the creation of at least 30 new protected areas that include climate-resilient reefs and scale solutions across 100,000 km^2 of coastal zone.

Institutional Strengthening – Creating National Hubs for Coral Reef Conservation

An oft-quoted proverb says, "If you want to go fast, go alone. If you want to go far, go together." Decades of conservation experience bears this out. Solo actions by a single organisation or agency can be implemented quickly – often generating short-term outcomes. But too often they succumb to the reality that lasting solutions require deep and broad commitment from multitudes. To achieve the impact that nature and people desperately need, we must go together.

Even when evidence and experience prove this lesson, it can feel frustrating to spend precious time in discussion when coral reefs are bleaching before our very eyes. CRRI was so named because it is a rescue mission – a sirens-on, red-light flashing rush to save the world's most resilient reefs before climate change pushes them past their tipping points. The sense of urgency and desire for swift action is palpable in every reef-dependent community, and shared by every partner in CRRI.

Every Fijian is brought up by the ocean. The first thing they see is the ocean and the reefs around them. In my traditional area, the Great Sea Reef is not only our life, it's a sanctuary for us.

William Katonivere
Traditional Head, Tui Macuata, Fiji

I see the oceans as a resource that sustains us. Without the oceans, the community would die and suffer because there is no rain. I am not the only one who thinks so. My whole community is aware of the importance of the oceans because they make us live. May our future generations inherit healthy oceans.

Afeimine
Befoletse, Southwestern Madagascar

Yet the stable governance structures that will support effective coral reef conservation for decades to come cannot be built overnight. They must have firm foundations based on trust and inclusion, and be resilient to withstand the inevitable changes of administrations, personnel and participation. This is why CRRI and the GEF CRR Project have focused extensively on launching the National Hubs.

These National Hubs are inclusive, multi-stakeholder platforms that bring together government ministries, local communities, NGOs, and scientists to co-design coral reef strategies. They align national policies with global frameworks, such as the Global Biodiversity Framework and the Paris Agreement; contribute to National Biodiversity Strategies and Action Plans (NBSAPs); coordinate reef-positive investments and blended finance; and build capacity and knowledge-sharing networks. They prioritise going the distance over quick wins.

Among the things that are unique to the GEF CRR Project is that it addresses the real problems and core issues that you find in many countries, such as the lack of proper infrastructure, sustainable financing, and coordination among the different stakeholders who benefit from the coral reefs and the management of conserving their resources. Now we have the national [Tanzania] coral reef hub established, and we think this coordination, when we get all the people together to speak about coral reef conservation and management, is very good. Today, we have a national five-year plan for the conservation and management of coral reefs, and we have never had this before.

Godfrey Ngupula

Tanzania Marine Parks and Reserves Unit GEF CRR Project Coordinator

We need to ensure that our policies are people-centred, built around maintaining healthy and resilient coral reefs and ecosystems that provide socio-economic benefits to people. We need to collaborate at all levels and with development partners to ensure that we have legal frameworks in place and that communities are empowered to manage their own coral reefs and marine resources.

Rosalie Masu

Deputy Secretary, Technical at the Ministry of Fisheries and Marine Resources of the Solomon Islands

The initiative is important for us because it has set up enabling conditions for other initiatives that we are now developing, such as creating a sustainable mechanism for recording managed marine areas. By working with locally managed marine area managers and supporting capacity building, as well as managing funds, it will help ensure that this financing mechanism runs smoothly in the future. This is crucial for our seascape.

Additionally, with CRRI, through collaboration with various stakeholders and the coral reef network, we can share our data and work at the regional level. This creates a link that allows us to follow up on our efforts in coral reef management and conservation at both regional and even global levels.

Domoina Rakotomalala

WWF/CRRI Madagascar Focal Point

Recent monitoring shows signs of reef recovery in Madagascar. Our National Hub ensures this science informs national action plans and community-led restoration and conservation for regeneration.

Mahery Randrianarivo

WWF-Madagascar Marine Science Technical Advisor

850 million people depend on coral reefs for food security and livelihoods, and reefs generate tens of billions of dollars a year in revenue from fishing and tourism. Coastal communities know that well-managed reefs hold a wealth of opportunity for future generations.

I've seen firsthand how communities depend on coral reefs, and how they protect them using traditions passed on for generations. We believe conservation must work for both people and nature. It means listening to science, yes, but also honouring local wisdom and building partnerships that are inclusive, especially for youth, women, and coastal communities.

Irwan Hidayatullah

WWF/CRRI Indonesia Focal Point

The National Hub [Fiji] provides a space for open dialogue updates, strengthening partnerships, and shaping national strategies, including the development of a national communication strategy for coral reef conservation that will contribute to raise awareness and inspire collective action to protect our coral reefs.

Neelam Bhan
WCS-Fiji GEF CRR Project Coordinator

National Hubs offer a scalable model for climate resilience and biodiversity conservation. This model of inclusive governance helps shift power to local actors and fosters long-term stewardship.

If we want reefs to survive the century, we must invest in the people and systems that protect them. In other words, if we want to go far, we must go together. National Hubs are our best mechanism to do so.

Rachel S. James
CRRI Lead

Country-Level Impact

The National Hubs in the six GEF CRR Project countries were at different stages of maturity at the close of the second year of the project in March 2025 – a reflection of the unique dynamics at play in each context.

The **Fiji** hub, coordinated by WCS, the sub-executing partner for the GEF CRR Project in Fiji, received formal endorsement from the government and, in early 2025, held its first formal meeting with active participation from community champions across the four CRRI districts. WWF-Fiji contributed to two key working groups, Sustainable Finance and Investment Strategies, and Conservation Planning and Policy, supporting the design of the National Plan for Coral Reefs. The hub has strengthened community-led reef management, integrating traditional ecological knowledge into national climate policy.

A total of 54 participants attended the Fiji CRR inception workshop, with a gender breakdown of 23 males and 31 females. Among the participants, 17 were youth (aged 35 or younger), comprising seven males and 10 females.

Indonesia's hub has successfully embedded reef mapping and monitoring into marine spatial planning, while mobilising national co-financing to scale conservation efforts. Driven by Reef Check Indonesia, the sub-executing partner for the GEF CRR Project in Indonesia, the hub also formally established the Knowledge Unit and Capacity Building Working Group, including the integration of a Traditional Knowledge Task Force to ensure that local wisdom is meaningfully embedded in national reef management strategies. The Sustainable Financing Working Group is exploring a range of potential financing options for coral reef ecosystem management, with an emphasis on supporting effective marine protected area management and strengthening local communities. The hub has played a central role in piloting online learning tools for community members, facilitating national-level coordination for the development of Indonesia's Coral Reef National Plan of Action, and hosting a national workshop on sustainable finance for reef resilience with over 120 stakeholders.

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Madagascar has introduced new livelihood and reef restoration programmes in high-dependency areas. Coordinated by WCS, the sub-executing partner for the GEF CRR Project in Madagascar, the National Hub encourages collaboration between NGOs, government agencies, and communities to improve coral reef management. In October 2024, the first hub meeting set out draft terms of reference and formed working groups with ministries and NGOs. The second meeting in March 2025 clarified objectives and structure, with around 65% participation. WWF helped integrate 'Réseau Récifs de Madagascar' with the Hub, combining technical expertise and policy leadership while maintaining autonomy for both groups to enhance coral reef conservation.

In June 2024 the GEF CRR Project was launched in Nosy Be. A total of 38 stakeholders (37% female, 63% male) attended, including representatives from the Ministry of the Environment and Sustainable Development and the Ministry of Fisheries and the Blue Economy, research institutes, NGOs, the private sector and local community representatives.

In the **Philippines**, the coordinating team has driven policy reform and youth engagement, amplifying advocacy for reef resilience in vulnerable coastal zones. In May 2025, the GEF CRR Project reached a milestone with the signing of the operational partnership agreement between UQ and the Department of Environment and Natural Resources. This marks an important preparatory step toward establishing a National Hub for coral reefs, which will facilitate research, capacity building, and coordinated implementation of a national action plan.

The **Solomon Islands** has advanced local governance and climate adaptation strategies, strengthening coastal communities to take active stewardship of reef protection. In April 2025, WCS, the sub-executing partner for the GEF CRR Project in Solomon Islands, led the convening of the National Hub to reaffirm its role within the Coral Triangle Initiative's National Coordination Committee (CTI NCC). During the workshop, the CTI NCC endorsed Year 3 priorities for the GEF CRR Project, including developing a National Action Plan for Coral Reefs and an associated communication and engagement strategy. The workshop also reinforced the importance of partnerships and collaboration, resulting in a jointly developed workplan. Since then, a series of technical working group meetings have been held to support effective implementation.

Led by the Marine Parks and Reserves Unit, the sub-executing partner for the GEF CRR Project in **Tanzania**, the National Hub supported the development of the National Action Plan for the Conservation of Resilient Coral Reefs, which incorporates validated studies on illegal fishing and reef threats. A national coral reef status report is also complete and pending publication. Community training programmes were delivered in Kilwa and Kibiti to strengthen local engagement. A harmonised data needs assessment and sampling protocol were agreed among stakeholders, and the Tanzanian Coral Reef Database was established to store national reef data and connect with global platforms. The GEF CRR Project has also helped develop sustainable tourism models that reinforce reef conservation.

In **Cuba**, while not a National Hub per se, leading coral reef researchers have joined with representatives from the Ministry of Science, Technology and Environment to create a national coral reefs group. This group has the responsibility to establish research plans, communicate the main findings and provide recommendations to improve the management of Cuba's coral reefs.

Together, these country-level efforts demonstrate the transformative potential of National Hubs – not only as coordination mechanisms, but as engines of innovation, inclusion, and impact in the global fight to save coral reefs.

Gender Equity, Disability and Social Inclusion (GEDSI)

GEDSI is an important component of CRRI. Examples of integration and implementation of GEDSI across CRRI include:


© WWF-Fiji

- **WCS leading a visioning workshop in Fiji** through the GEF CRR Project aimed at strengthening community voices for coral reef conservation and integrating traditional ecological knowledge, with 60 diverse community participants (50% male, 50% female and 10% youth; including indigenous and elder representatives)


© CRRI

- **WWF-Australia integrating GEDSI** principles in the design of the GEF CRR Project inception workshop (March 2023)


© CRRI

- **WWF-Australia facilitating a workshop** for the CRRI global core team and staff from AIMS to understand GEDSI in the context of coral reef conservation in the Pacific and how to better integrate best practices into Pacific projects (November 2024)


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- **CARE developing GEDSI research and products** (June-October 2021); the development of technical and policy outputs on gender in coral reef social ecological systems led to subsequent publication of a journal article in Women in Fisheries (2022)


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- **GEDSI specialists supporting the creation of a Gender Action Plan for the GEF CRR Project** (2021)

But embedding and embodying the principles of GEDSI is an ongoing process – it will never be "finished," as CRRI is always striving to make approaches and programmes more inclusive, representative and relevant for the communities involved. CRRI leadership acknowledges the finding of the 2025 evaluation report that "there are opportunities to improve implementation of gender, disability and social inclusion strategies into CRRI. While data on GEDSI within CRRI implementation are limited, the evaluation identified positive examples of empowered women as a result of the initiative." Direct beneficiaries from the GEF CRR Project thus far are 47% women and 53% men.

Margie's Story

In Fiji, cultural norms can create obstacles to leadership opportunities for women. But for CRRI Focal Point Margaret (Margie) Tabunakawai Vakalalabure, being involved with the initiative provided her with a platform to engage with the Chief of Namuka District, a new experience for Margie.

During CRRI implementation, Chief Turaga Tui Namuka wrote a letter to the Macuata Provincial Office seeking support. Margie, through her role as CRRI Fiji Focal Point and WWF-Pacific Great Sea Reef Programme Manager, saw an opportunity to support the district. In consultation with Turaga Tui Namuka and his all-male committee, Margie was engaged for her advice and support regarding the set-up of MPAs for seven Blue Coral Pools.

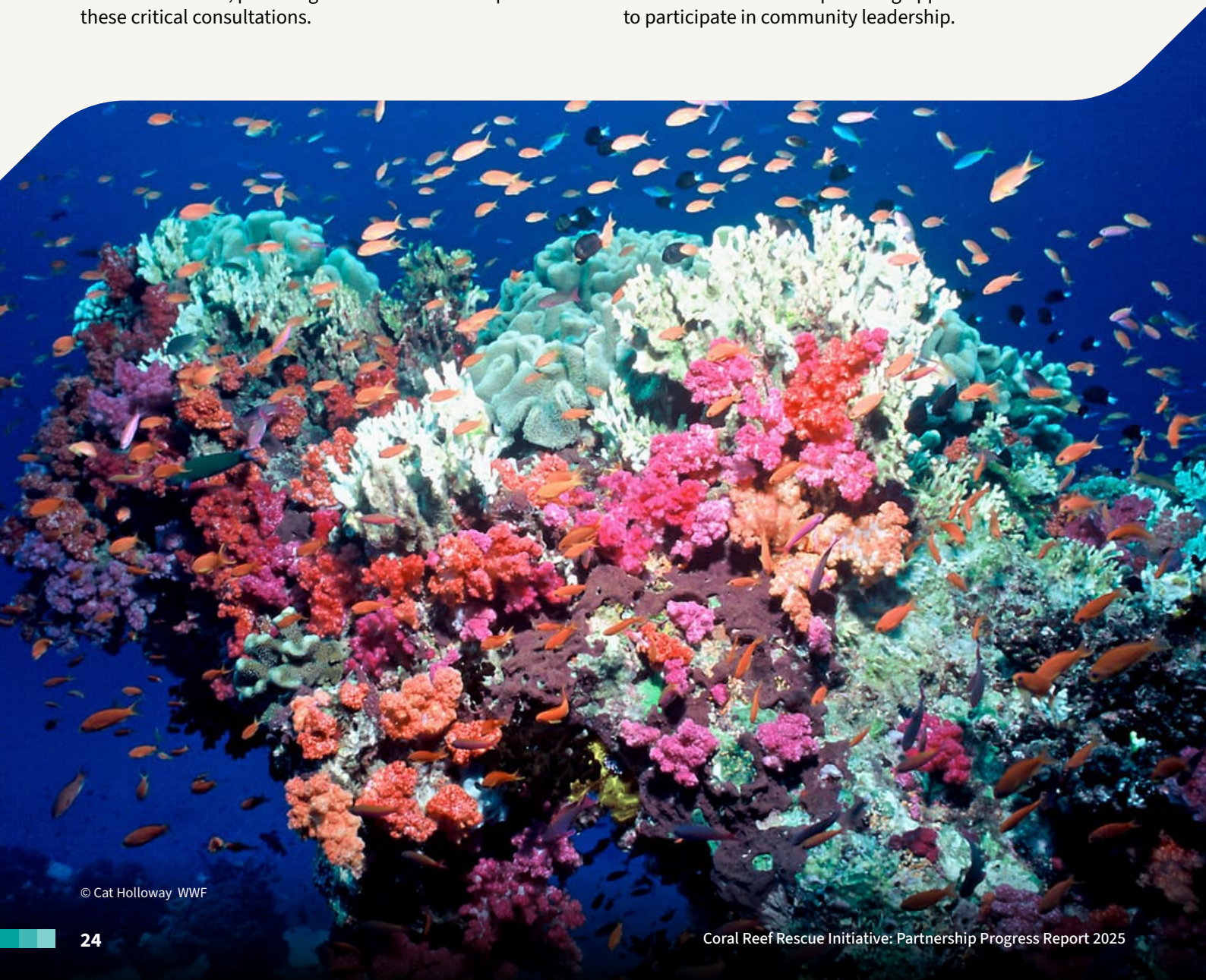
The two districts of Namuka and Dogotuki have overlapping traditional fishing grounds within which they agreed to nominate various zones as MPAs. Margie was able to share valuable insights and lessons from her experience on other WWF coral reef projects. In doing so, she was able to speak on the topic of traditional fishing grounds – a subject not usually discussed by women. Margie engaged the Ministry of Fisheries and Macuata Provincial Office in these discussions, providing advice and leadership for these critical consultations.

> *To be able to sit in a village forum and give advice to a Chief and his committee, it's not something commonly heard of and practiced, especially for women.*

Margaret (Margie) Tabunakawai Vakalalabure

WWF/CRRI Fiji Focal Point and WWF-Pacific Great Sea Reef Programme Manager

The experience marked a personal milestone for Margie and highlights evolving roles of women in Fiji, with initiatives such as CRRI providing opportunities for women to participate in community leadership.



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Monitoring and Stakeholder Engagement Highlights

Progress is being made to monitor reef health and gather ecological survey data, with Cuba, Fiji, Indonesia, Madagascar and Tanzania undertaking surveys of CRRI priority areas in 2022-2025. Survey activities in the Philippines and the Solomon Islands remain incomplete, primarily due to insufficient funding, though a reef health baseline and analysis of localised threats will be conducted in the Solomon Islands under the GFCR proposal.

Cuba

In February 2025, WCS, WWF and partners completed the second field expedition to Jardines de la Reina National Park (JRNP) assessed reef health across six priority sites – Mariflores, Las Cruces, El Peruano, Las Auras, Los Pinos, and Anclitas – focusing on terrace and slope biotopes. Nearly 10,000 coral colonies were documented; Mariflores stood out for its exceptional coral density and diversity, while Las Cruces showed signs of ecological degradation.

The expedition revealed concerning trends, including a decline in *Porites astreoides* density, indicating stress from temperature and disease. While live coral colonies were prevalent, significant bleaching (reaching up to 61%) and old mortality were observed, especially in Las Auras and Los Pinos. Macroalgae (60-89%), and average coral cover remained low (13-15%), with Mariflores again showing the highest diversity and complexity. These findings underscore both the ecological significance and vulnerability of JRNP's reef systems. They highlight the urgent need for sustained monitoring and targeted conservation actions that address local threats and build ecological integrity and resilience.

"Thanks to CRRI we had the opportunity to monitor the most important marine protected area in Cuba and one of the largest in the Caribbean," says Professor Patricia González-Díaz. "This survey was conducted at a crucial moment following the worldwide heat waves of the 2023. Understanding the impact of the heat wave and how the reefs responded was crucial to inform discussions with decisionmakers at different levels of government (MPA authorities, tourism, environment) about how to enhance Cuba's coral reef conservation strategies."

In April 2025, WCS and the University of Havana's Center for Marine Research co-led the Coral Reef Resilience under Rapid Climate Change workshop with participation from WWF-Netherlands, UNESCO, and Cuba's national conservation authorities. It advanced conservation strategies for Cuba's JRNP and refined JRNP's research agenda with a focus on microbiological processes and AI-based coral health monitoring. The meeting strengthened collaboration between Cuban institutions and international partners to scale restoration and resilience-building efforts.

The workshop was an opportunity to share photos and videos highlighting the health and diversity of the JRNP with the Vice-minister of the Ministry of Science, Technology and Environment, directors of the Center for Marine Research, Center for National Protected Areas, National Cuban Aquarium and Institute of Marine Sciences. Also in attendance was Dr. Christian Voolstra, President of the International Coral Reef Society (ICRS), on hand to formalise the creation of Cuban chapter of ICRS.

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Fiji

WCS and WWF significantly advanced community engagement and strengthened collaboration throughout Macuata Province, aligning local coral reef conservation with national environmental priorities. Facilitated through the GEF CRR Project, targeted socialisation and comprehensive consultations attended by 28 participants in Dogotuki district increased community awareness, identified local leaders, and built important partnerships for future reef-positive activities. These efforts have fostered greater trust at the village level, encouraged more inclusive participation from both women and men, and reinforced best practices for long-term reef stewardship.

By integrating feedback from these consultations and drawing on lessons from over two decades of WWF investment in the region, the GEF CRR Project demonstrated effective approaches for enhancing resource management and addressing community priorities. The project not only strengthens the capacity of local committees and programmes, but also lays a solid foundation for ongoing technical support and new conservation initiatives. Overall, this work is helping to create more resilient coral reefs and communities, ensuring lasting impact for both ecosystem health and sustainable development in Fiji.

Indonesia

In Indonesia's Derawan MPA, coral reef rehabilitation was carried out in April-June 2022 in three locations under the WWF-Indonesia/EU Ocean Governance project. WWF-Indonesia carried out reef health monitoring at the rehabilitation sites in September 2023, which showed that the average hard coral cover was only 7.44 ± 3.09% with significant variability across the three sites. The team assessed these results indicate the need for further rehabilitation efforts. The average fish abundance and biomass values across the three locations did not show significant changes, with increases in one site offset by declines in another. The data and lessons learned from the Derawan MPA Survey are now being incorporated into the development of a GCF concept note, which seeks to scale up reef rehabilitation efforts and promote climate-resilient marine ecosystem management. The Derawan model, which combines science-based monitoring with community engagement, offers a replicable framework for broader reef regeneration initiatives across Indonesia. These outcomes reflect a solid foundation for future conservation planning and ecosystem recovery efforts, with an emphasis on sustainability and community involvement in marine protection.

The fourth iteration of ecological monitoring in Alor Islands MPA in 2023 involved data collection at 34 points for assessing coral reef health, including four points outside the protected area. The results show that the overall hard coral percentage stands at 28.9% ± 5.6%, with notable disparities between areas within the designated zone (33.1% ± 3.9%) and those outside its boundaries (18.25% ± 2.9%). Within the no-take zone specifically, hard coral cover surpasses that of other zones, registering at 37.5% ± 6.6% as compared to 30.9% ± 4.8%. The analysis of trends in benthic category cover within the Alor Islands MPA underscores the resilience of the ecosystem over the past nine years, with little variation since the first monitoring in 2014. The trend in the abundance of herbivorous or functional fish species in 2023 remains stable compared to the previous years, both within and outside the MPA. This is in contrast to economically important fish species, which exhibit a significant increase in 2023 when compared to previous years.


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Madagascar

In 2024, WCS and WWF completed coral reef monitoring surveys across key sites in Madagascar. Long-term bleaching data (2016-2024) from North-Western Madagascar, including the Ankivonjy MPA, was presented at the 7th International Marine Conservation Congress, providing critical insights into regional reef vulnerability. In South-West Madagascar, WWF's forthcoming Coral Bleaching Report highlights how Mahafaly seascape coral assemblages responded to the fourth mass bleaching event, informing future resilience strategies. Data from these surveys was incorporated into Madagascar's National Coral Reef Assessment 2024 and will contribute to the Global Coral Reef Monitoring Network 2025 Report.

This collaboration supports a Red List of Ecosystems analysis for Madagascar's reefs, led by the Coastal Oceans Research and Development in the Indian Ocean, and strengthens national reef monitoring through contributions from Institut Halieutique et des Sciences Marines, Centre National de Recherches Océanographiques, Conservation International, and KORAÏ.

Tanzania

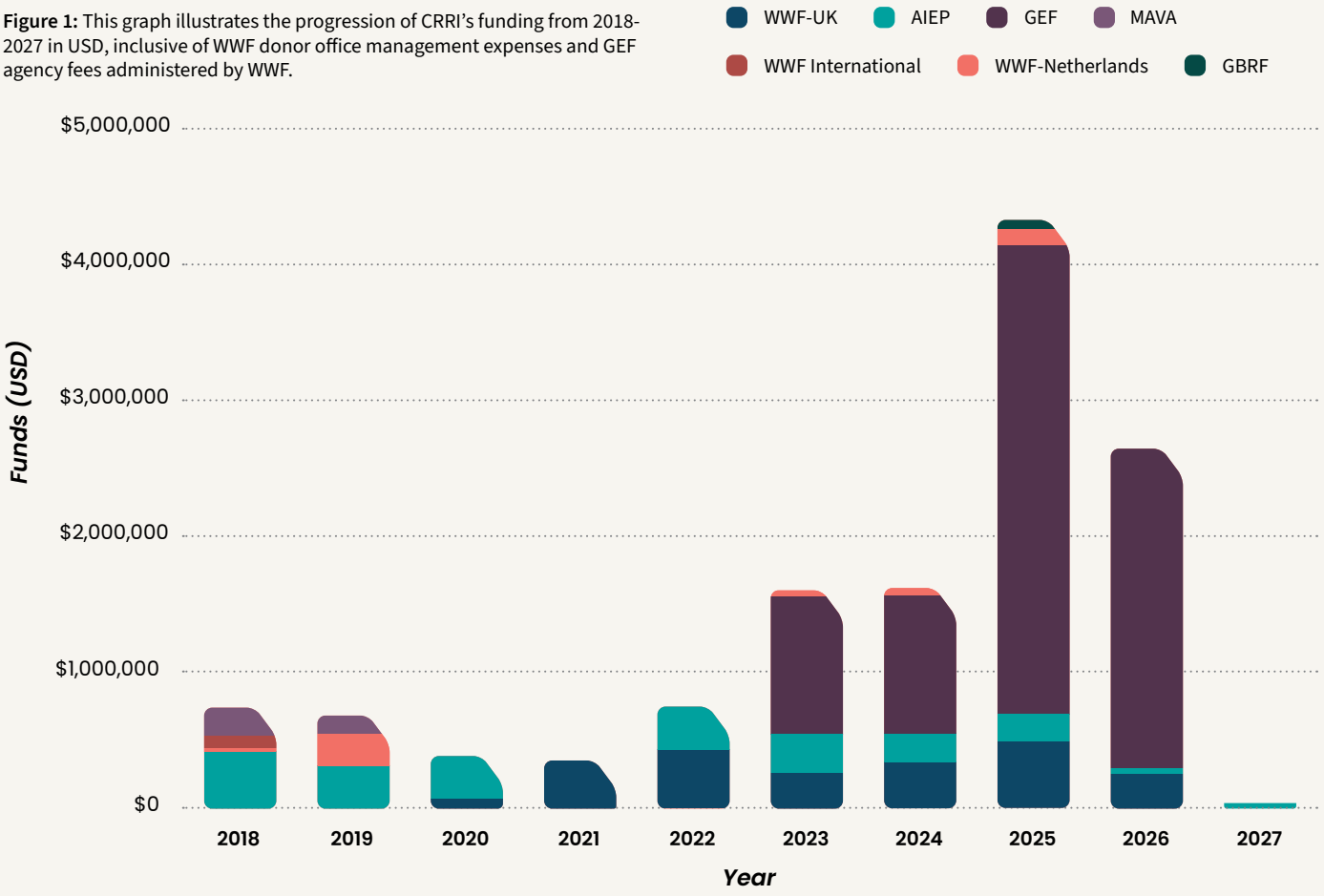
Monitoring undertaken by WWF in 2022 looked at sites that comprise the "Strengthening Marine Protected Areas Management in Rufiji, Mafia and Kilwa Districts in Tanzania" project funded by the Blue Action Fund. These same sites within Mafia Island Marine Park were surveyed in 2018, and some encouraging trends were revealed. Coral cover increased by 1.77% since 2018, reaching an average of 42.19%, with notable gains at Kitutia, Utumbi, Msumbiji, and Chawe reefs. Coral recruitment surged by 51%, indicating strong regenerative potential. Most coral colonies fall within the 21-40 cm size class, though larger colonies dominate select sites. Grouper populations were predominantly juvenile, with no individuals recorded in the largest size classes, suggesting overfishing pressures. Sea urchin densities – an indicator of reef stress – were generally low, with predator fish populations helping regulate them. The survey report recommends strengthening law enforcement and enhancing stakeholder engagement to bolster resilience and sustainability across the marine park's ecosystems. These recommendations align closely with CRRI's collaborative and systems-based approach to reef conservation.

CRRI and the GEF CRR Project maintain an ongoing commitment to driving science-informed coral reef management, ensuring data-driven decisions are central to safeguarding reef ecosystems. Through partnerships with AIMS via ReefCloud and WCS using MERMAID, CRRI enables rapid, efficient monitoring across marine protected areas and priority seascapes. This enduring collaboration ensures adaptive management is powered by cutting-edge technology and real-time ecological insights, underscoring the critical importance of sustained monitoring.

Financials and Sustainability

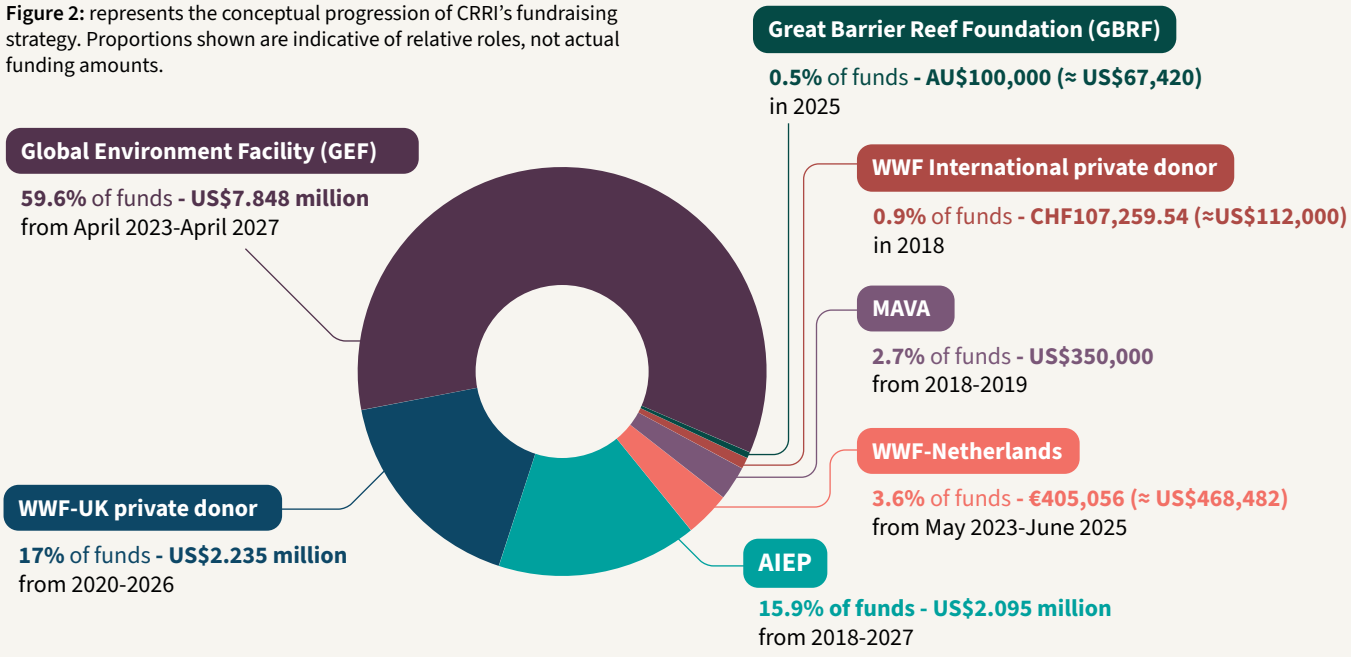
CRRI Funding Evolution 2018–2027

Figure 1: This graph illustrates the progression of CRRI's funding from 2018-2027 in USD, inclusive of WWF donor office management expenses and GEF agency fees administered by WWF.



CRRI's funding is supported by a diverse group of donors, with contributions spanning multiple years and currencies. The breakdown is as follows:

Figure 2: represents the conceptual progression of CRRI's fundraising strategy. Proportions shown are indicative of relative roles, not actual funding amounts.



Over the past two to three years, the GEF CRR Project has been instrumental, providing the backbone for regional delivery in key seascapes across six of the seven focus countries.

Crucial early and sustained support from other valued donors – AIEP in particular – has been critical in sustaining the CRRI global core team and resourcing our core global partners. This unique collaboration is what has allowed our vision to translate into on-the-ground impact.

Professor Ove Hoegh-Guldberg AC FAA
Chief Scientific Advisor for CRRI

What is unique about the GEF CRR Project is the collaboration and development of the National Action Plan for reef conservation. For a long time, we didn't have effective policies, but with the development and implementation of this plan, we will be able to achieve conservation and sustainability of coral reefs in Madagascar.

Arielle Hoamby
WCS-Madagascar GEF CRR Project Coordinator

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4 Private sector and blended finance

Engage for reef-positive solutions, de-risked by public sector investments.

3 Public sector (GCF & GFCR)

Scale proven approaches from GEF CRR Project in target countries.

2 Public sector (GEF)

Build national hubs & working groups.

Create a foundation for innovative financial solutions for reef conservation.

1 Philanthropy

Invest in foundational science behind CRRI (50 Reefs Report).

Catalyse global collaboration and advocacy.

Launch CRRI to unite partners and drive action.

The US$7.8 million grant from the GEF for Phase I opened substantial funding opportunities from the GCF – the world's largest climate fund – which can help deliver the vision for Phase II & III of the initiative.

Now a robust funding strategy is required for Phases II & III of CRRI to ensure that the initiative can be sustained, scaled, and successful in the face of escalating threats to coral reefs worldwide. Early philanthropic support and the GEF CRR Project have helped lay the groundwork in each country, creating the necessary conditions to transition to GCF funding. These public funds are expected to encourage private sector investment in reef-friendly businesses within priority countries. Fortunately, there are new and emerging opportunities for funding on the horizon, including blended finance, climate- and nature-positive investment opportunities, and 30x30 biodiversity funds.

Green Climate Fund (GCF)

The Project Preparation Facility grant of US$658,000 to develop a full proposal for Fiji was approved, and the full proposal was submitted on 31 March 2025. The Fiji GCF proposal is currently awaiting final feedback from the GCF Secretariat. The approval process is expected to progress throughout 2025. Upon successful review, the government of Fiji will issue a No-Objection Letter, further reinforcing the case for funding and endorsement. Based on current timelines, funding confirmation is anticipated between July to December 2025. The GCF Fiji proposal is a 10-year project for US$46.3 million, with US$41.3 million provided by the GCF grant and US$5 million in co-financing from the government.

For the GCF proposal for Indonesia, consultants are being hired to conduct the Climate Vulnerability and Gender Analyses, which will inform national consultations and ensure the concept note addresses climate risks and gender considerations. Next, the focus will be on using these analyses to guide assessments and align the proposal with Indonesia's climate financing strategies, strengthening the case for GCF funding.

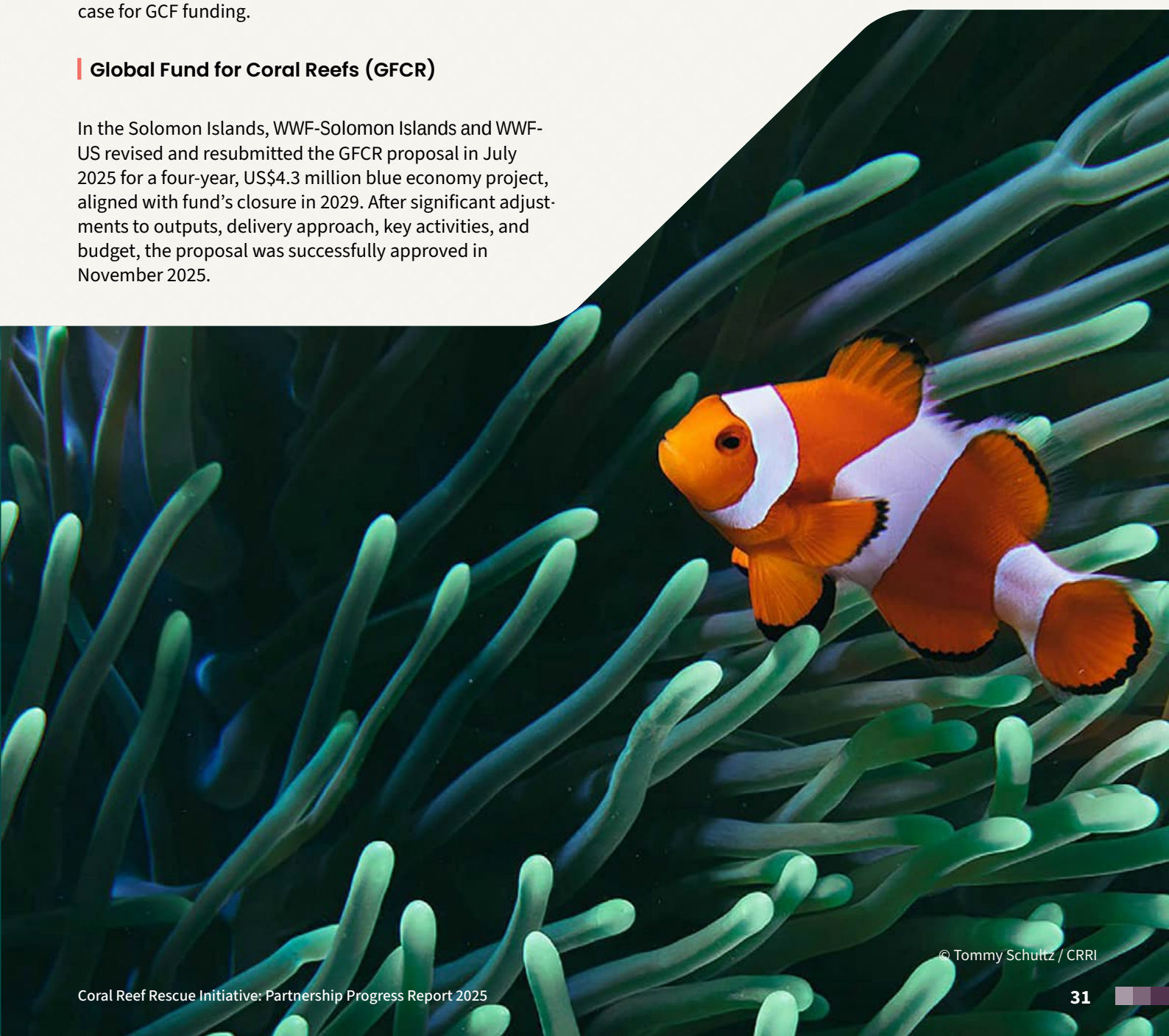
Global Fund for Coral Reefs (GFCR)

In the Solomon Islands, WWF-Solomon Islands and WWF-US revised and resubmitted the GFCR proposal in July 2025 for a four-year, US$4.3 million blue economy project, aligned with fund's closure in 2029. After significant adjustments to outputs, delivery approach, key activities, and budget, the proposal was successfully approved in November 2025.

Marine Revolving Fund

CRRI's Blue Economy consultant, in collaboration with WWF-Australia's Regenerative Economy Lead, developed a concept for a Marine Revolving Fund, an innovative financing mechanism established to ensure stable, long-term funding for MPAs. By diversifying income streams, including public and donor funds, tourism activities, reef-related taxes, blue carbon credits, and the growth of sustainable businesses, the fund aims to significantly decrease the reliance on traditional donor support and strengthen reef conservation efforts.

The fund would also support local communities by providing technical assistance and microfinance to foster development of reef-friendly enterprises. This approach demonstrates a sustainable pathway for financing marine conservation, closely aligning with donor objectives to promote resilient ecosystems and support coastal communities.



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Communications and Outreach

With limited resources available for production and promotion of communication materials, CRRI nevertheless continues to build a recognisable public brand. CRRI is active on LinkedIn to keep partners and the public informed about developments in reef conservation.

When the fourth global mass coral bleaching event was announced in April 2024, CRRI published a press release, and parlayed that into a partner press release and parlayed that into a partner press release on WWF International's web site.

In November 2024, then-initiative lead Carol Phua was featured on BBC news discussing the discovery of world's largest coral in the Solomon Islands. She used this news hook to deliver a key message about the importance of safeguarding coral reefs and the valuable benefits they provide both people and nature.

CRRI partner and sub-executing partner for the GEF CRR Project, WCS has been actively promoting new developments such as the establishment of the Coral Reef Rescue National Hub in the Solomon Islands and in Fiji. The launch of the National Hub in Fiji was also promoted by Fiji One News. WCS has also used its Facebook feed to promote the GEF CRR workshop in Fiji.

The GEF CRR Project website is a platform for online learning and knowledge sharing. UQ, as the executing agency for the GEF CRR Project, has promoted its role in news articles, web stories and on its social media channels.

Two films have been stand-out successes for CRRI's public engagement and messaging around threats to ocean health more broadly.

Through the CRRI account and various WWF network office accounts, "Untangled: Marine Heatwaves" has accumulated more than 30,000 views, and it remains part of the Untangled Playlist on WWF International's YouTube channel. It has an evergreen message, which can be repurposed for the foreseeable future, emphasising grassroots action and local conservation strategies such as reducing coastal pollution, overfishing and unsustainable industrial development, while lowering emissions and enhancing marine protected areas. Subsequent translations in Bahasa Indonesia and French aim to broaden the video's reach, enabling audiences in countries such as Indonesia and Madagascar to better understand the impacts of climate change on our oceans and coral reefs, as well as CRRI's strategic response.

"In Hot Water" was created with the award-winning agency NOMINT. It tells a poignant story through stop-motion animation filmed on a thermal camera, combining art and technology to highlight the delicate balance of marine ecosystems and the cascading effects of rising ocean temperatures. Launched at the climate COP in Baku, Azerbaijan, this film focuses on collective action and international policy measures, emphasising the importance of achieving net-zero. Thanks to paid promotion provided by WWF International's Ocean Practice, this film has racked up well over 8 million views and many international awards for production – with such notoriety comes expanded and broader reach beyond ocean/conservation audiences.

In 2024, the impact from marine heatwaves on coral reefs was making headlines, and CRRI was able to leverage the relationship with WWF International to create an episode of its successful "Untangled" series timed to launch on World Reef Day. By presenting complex scientific concepts in an accessible format, Untangled bridges the gap between research and public understanding. Visual storytelling, paired with narratives from scientists and conservationists, fosters a connection between viewers and the ocean, making the crisis feel personal and urgent.

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The Path Forward

The wave of new commitments to ocean protection and restoration made at the June 2025 UN Ocean Conference prompted the Guardian to ask: Is the ocean 'having a moment'? Indeed, it does seem like there's a growing understanding of the centrality of the ocean to the health and well-being of people and the planet – and of the inextricable link between the health of coral reefs to that of the ocean more broadly.

This has generated many exciting opportunities, including the Coral Reef Breakthrough and the joint high-level commitment for Protecting Climate-Resilient Coral Reefs. The Coral Reef Breakthrough aims to secure the future of at least 125,000 km2 of shallow-water tropical coral reefs with investments of at least US$12 billion to support the resilience of more than half a billion people globally by 2030. The high-level commitment closely aligns with CRRI, with signatories pledging to:

Integrate coral reef conservation into national biodiversity and climate strategies, ensuring alignment with the Kunming-Montreal Global Biodiversity Framework and the Paris Agreement.

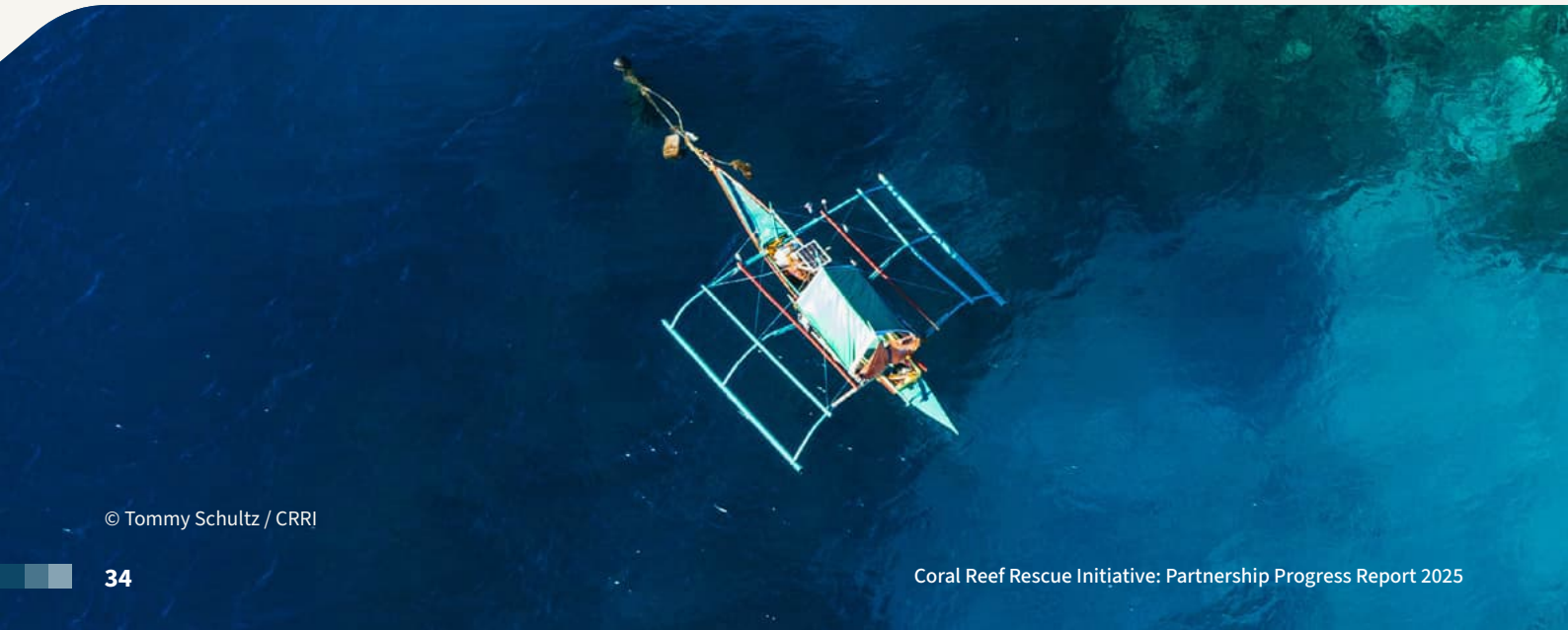
Strengthen national coral reef action plans and monitoring systems, building on existing mechanisms to reduce local threats, measure progress, and guide adaptive management.

Prioritise climate-resilient reefs within 30x30 commitments by identifying and protecting reefs most likely to persist and serve as recovery sources for the future.

Enact and enforce policies to reduce land-based pollution, eliminate destructive and illegal fishing, and manage coastal development to minimise cumulative stress on reef ecosystems.

With four of the seven CRRI countries (Indonesia, Madagascar, Solomon Islands and Tanzania) among the first cohort of signatories, the initiative is well-placed to support and facilitate efforts to fulfill these commitments.

CRRI supported Fiji to complete and submit its GCF proposal and is actively helping Indonesia in developing its own. The proposed projects will be built upon the mechanisms created by the CRR GEF Project for coral reef conservation at a national level, including the National Hubs. These projects will help scale up investment into blue economy solutions, improve coral reef management plans, and enhance capacity of reef managers and coastal communities to ensure the continued productivity of climate-resilient reefs.



Because, while we will continue advocating for governments to take urgent climate action, in the immediate future, the local management systems being introduced and strengthened through the CRRI partnership are the front line of defence for coral reefs. National Hubs can lead the way on integrated plans for protection, regulation and finance. Examples include:

Fisheries/Habitat

Control overfishing and prevent destruction. Enforce bans on herbivorous fish and expand no-take zones. Implement science-based sustainable fisheries management.

Pollution/Development

Reduce land-based runoff. Strengthen mangrove protection; restore riparian riverbanks to reduce sedimentation and improve water quality. Enforce laws to regulate coastal construction and limit nutrient runoff from agriculture, enforce water quality standards. Develop catchment-wide river to sea management plans.

Reef Resilience

Boost survival odds for remaining corals. Establish rapid coral disease surveillance using tools like ReefCloud and MERMAID. Test and expand treatments. Establish new MPAs and other effective area-based conservation measures under local leadership.

Finance/Policy

Ensure funding and governance are adequate and equitable. Launch blue bonds and use debt-for-nature swaps to finance conservation. Adopt reef insurance policies triggered by heat or storms for rapid post-disaster response. Direct finance to Indigenous Peoples and local reef-dependent communities. Scale reef-positive livelihoods, reef management interventions, monitoring and marine conservation.

For the CRRI partnership specifically, there are ongoing management and coordination challenges to address, with many lessons to build from. Challenges related to data availability and logistical barriers in remote or sensitive locations have impacted certain aspects of the work, but technological advances are helping teams overcome those hurdles. Financial constraints and competing national priorities – perennial challenges in the conservation sector – have limited the ability to expand some activities and sustain effective collaboration across participating countries.

With many strengths on which to build – most notably, the incredibly dedicated individuals contributing in every country – CRRI will harness our deep collective resolve and expertise to develop solutions and advance our strategic priorities the subsequent phases.

Coral Reef
Rescue Initiative

CRRI is dedicated to protecting and restoring climate-resilient coral reefs, ensuring the sustainability of coastal livelihoods, and strengthening local communities with the knowledge and tools to safeguard these ecosystems for a thriving climate-secure future. **JOIN US**

www.coralreefrescueinitiative.org