

Conservation Investment Blueprint: Public-Private Partnership for Marine Protected Areas Developed based on the Case Study of Blue finance

i. Overview of the conservation need and opportunity

Coral reefs provide exceptional biodiversity and ecosystem services for local economies. However, a fifth of the world’s coral reefs have already been lost, and more than 60% are under immediate and direct threat. Science provides clear recommendations for what actions should be taken and the use of Marine Managed/Protected Areas (MPAs) is highly recommended. MPAs encompass several types of subareas such as fishery areas, tourism areas and conservation areas. When properly managed, the MPAs have proven to control overfishing, reduce user conflicts, increase community support and improve enforcement of water quality regulations.

To be effectively managed, marine conservation requires a sustainable source of sufficient financing and apposite management resources, both of which can exceed public budget priorities. In parallel, it has been demonstrated that, vibrant and well marketed, marine biodiversity can generate important revenue from visitors and businesses, as well as economic benefits for local populations.

ii. How the Blueprint contributes to conservation goals

Contributions to conservations goal

This Blueprint contributes to the conservation and enhancement of coastal marine biodiversity. It is achieved by investors making debt investments into Public-Private Partnerships (PPPs) for the management of Marine Protected Areas (MPAs). The portfolio will create and expand MPAs, while ensuring their effective management for the long term.

1 PPP is being implemented by Blue finance in the Dominican Republic for one of the largest MPAs in the Caribbean (8000 km² of coral reef ecosystems) and 3 other PPPs are in last-stage development in 3 Caribbean countries (Antigua & Barbuda, Barbados and St Kitts & Nevis). New PPPs are being explored in the wider Caribbean and SE Asian countries of Cambodia, Indonesia, Philippines, Malaysia, Vietnam.

PPPs will contribute to the sustainable use of more than 20,000km² of coral reefs, the livelihood enhancement of 500,000 households, climate change resilience (Sustainable Development Goals n°14, 1, 5, 8 and 13) and offer a market Internal rate of return or IRR (a metric used to estimate the profitability of potential investments) to impact investors.

These numbers are indicative and might change based on progress with projects.

Key metrics

Environmentally, improvements in coral reef ecosystem health (trophic structure, biodiversity, resilience) is expected and indicators of coral health – coral abundance, diversity, fish population density and diversity, macro-algal abundance and water quality will be used to demonstrate these impacts. The baseline used, a clearly defined starting point from which comparisons are made, for coral reef ecosystem health will comprise of the indicators stated above and will be site specific due to the diversity of habitats.

Socially, improvements in ecosystem services provided by coral reefs (e.g. fish biomass for fisheries, scenic beauty for tourism, coastal and beach protection for real estate) will have direct impacts on local economies. More specifically, local communities of small-scale fishers will benefit annually from the new income generating activities in the MPA (e.g. coral gardener, fish warden, resource monitoring), as well as increased fishery productivity reflected as an increase in the catch per unit effort (CPUE). Additionally, new opportunities with small-scale eco-tourism activities (such as nature guide, animal viewing) can also enhance the MPAs and contribute to community livelihoods. The expected rise in eco-tourism volume will yield increased local employment in marine tourism establishments such as tour and dive operators, as well as more traditional tourism businesses (e.g. accommodation industry, restaurants).

Standardized Global Impact Investing Network IRIS metrics for social, environmental and financial performance may include (<https://iris.thegiin.org/metrics>):

[Environmental Impact Objectives \(OD4108\)](#), [Biodiversity Assessment \(OI5929\)](#), [Threatened Species Policy \(OI1618\)](#), [Ecosystem Services Provided \(PD8494\)](#), [Social Impact](#)

[Objectives \(OD6247\)](#), [Social Responsibility Client Policies \(OI7783\)](#), [Target Beneficiaries \(OD7212\)](#), [Social and Environmental Targets \(OD4091\)](#), [Number of Loans Disbursed \(PI8381\)](#), [Value of Loans Disbursed \(PI5476\)](#), [Repayment Capacity Analysis \(PI4733\)](#), [Interest Rate Method \(PD2691\)](#), [Compulsory Insurance Products \(PD1928\)](#)

A CPIC-branded investment deal needs to demonstrate clear and measurable impacts on biodiversity conservation. This can happen through interventions that are designed to ameliorate threats to biodiversity, at the species or ecosystem level. Influence over the delivery of ecosystem flows that benefit people is also desirable.

Threats to biodiversity can be assessed at a spatial scale using the Integrated Biodiversity Assessment Tool (<https://ibat-alliance.org>). The first step is to assess what biodiversity assets exist in proximity to project sites using the proximity tool of IBAT. Once threatened species, Key Biodiversity Areas and protected areas in the vicinity of the site are identified, then each of these have listings of threats to biodiversity that can be influenced by the investment opportunity. An example would be the reduction in pollution of biodiversity-rich rivers from investments in reforestation.

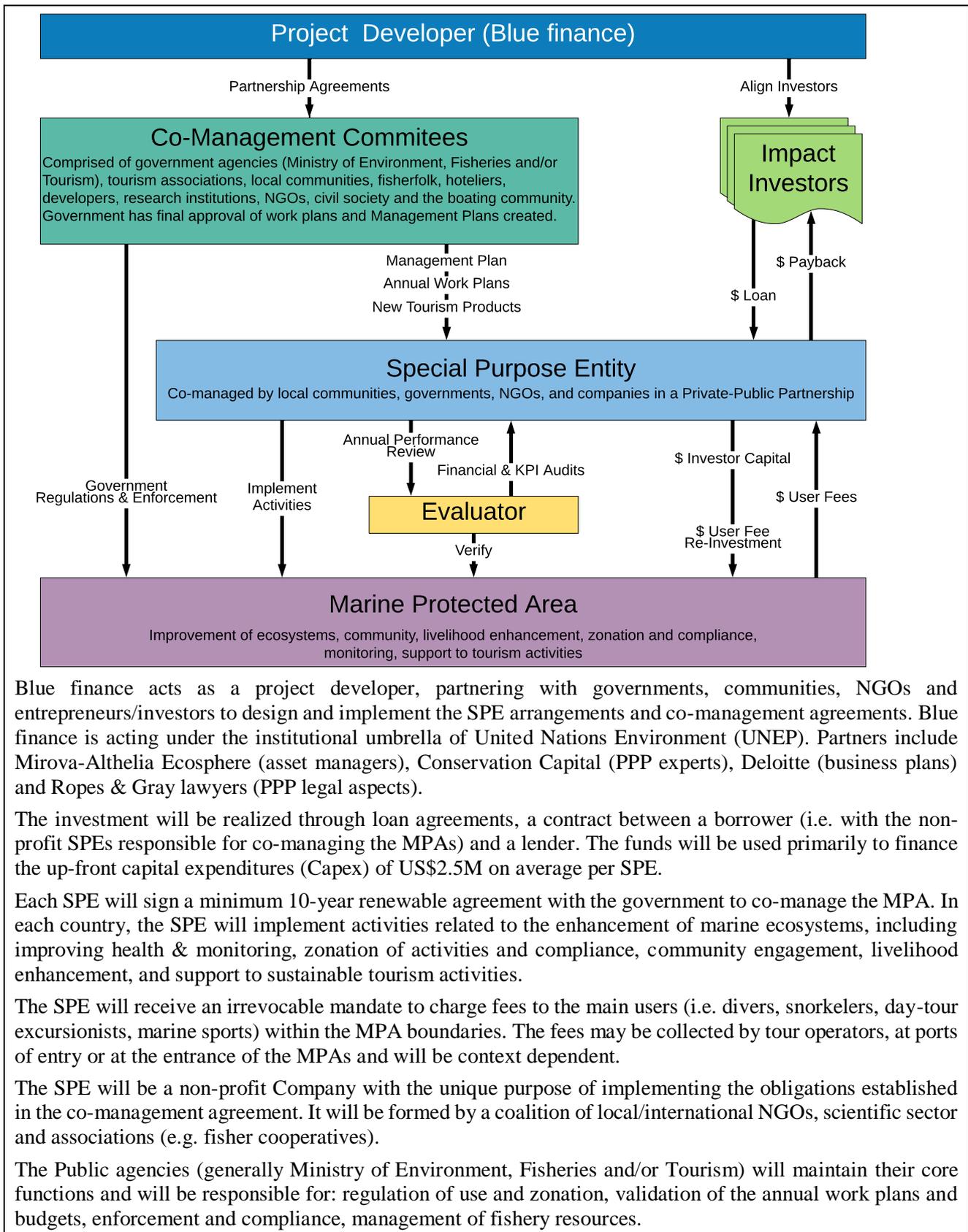
A clear statement of the planned reduction in threats to biodiversity that will be generated by the investment is necessary justify priority status as a CPIC deal. In the first stage of project development, a simple assessment of the project proximity to biodiversity asset and the link between the impacts of investment and the reduction of threats is sufficient. Once investment activity is confirmed, a more detailed assessment of potential return on investment for biodiversity is required. A module to calculate this is under development for IBAT. This biodiversity return on investment can be calculated ex-ante, as a means of assessing opportunities for impact, and ex-post, once the investment is confirmed and management starts.

A first assessment of the impacts of the investment on ecosystem services to people can be made through the use of the TESSA tool (<https://ibat-alliance.org>). A more detailed assessment of the tools available for conservation assessments, forest landscape restoration planning landscape assessment generally, and biodiversity management is available in the Conservation Investment Blueprints: A Development Guide available on the CPIC website (<http://cpicfinance.com/related-reports>).

iii. The business model

Organisation and governance

The MPAs are proposed to be jointly managed with non-profit Special Purpose Entities (SPEs), through a co-management agreement (Public-Private Partnership - PPP). SPEs are the creation of a company controlled by parent companies (in this case the parent companies are usually local NGOs) which is a distinct legal entity to help keep liabilities, taxation and regulations related to the project separate from the core business, therefore isolating risk. This approach reduces the financial burden on governments and improves the entrepreneurial approach to managing MPAs.



Blue finance acts as a project developer, partnering with governments, communities, NGOs and entrepreneurs/investors to design and implement the SPE arrangements and co-management agreements. Blue finance is acting under the institutional umbrella of United Nations Environment (UNEP). Partners include Mirova-Althelia Ecosphere (asset managers), Conservation Capital (PPP experts), Deloitte (business plans) and Ropes & Gray lawyers (PPP legal aspects).

The investment will be realized through loan agreements, a contract between a borrower (i.e. with the non-profit SPEs responsible for co-managing the MPAs) and a lender. The funds will be used primarily to finance the up-front capital expenditures (Capex) of US\$2.5M on average per SPE.

Each SPE will sign a minimum 10-year renewable agreement with the government to co-manage the MPA. In each country, the SPE will implement activities related to the enhancement of marine ecosystems, including improving health & monitoring, zonation of activities and compliance, community engagement, livelihood enhancement, and support to sustainable tourism activities.

The SPE will receive an irrevocable mandate to charge fees to the main users (i.e. divers, snorkelers, day-tour excursionists, marine sports) within the MPA boundaries. The fees may be collected by tour operators, at ports of entry or at the entrance of the MPAs and will be context dependent.

The SPE will be a non-profit Company with the unique purpose of implementing the obligations established in the co-management agreement. It will be formed by a coalition of local/international NGOs, scientific sector and associations (e.g. fisher cooperatives).

The Public agencies (generally Ministry of Environment, Fisheries and/or Tourism) will maintain their core functions and will be responsible for: regulation of use and zonation, validation of the annual work plans and budgets, enforcement and compliance, management of fishery resources.

A Co-management Committee will be established to participate in the co-management. It will be comprised of government agencies (Ministry of Environment, Fisheries and/or Tourism), tourism associations, local communities, fisher-folk, hoteliers, developers, research institutions, NGOs, civil society and the boating community. It will provide guidance on activities and approval of management plans, performance and financial statements. The implementation of activities will be guided by the annual work plans, prepared by the NGO, submitted to the co-management committee and approved by Government.

Local professionals, as far as possible will comprise the management team. Permanent staff of 15 to 25 is expected including the Chief Executive Officer (CEO), Chief Operations Officer (COO), Scientific director, communication officer and enforcement staff.

The Blue finance expert team, with a long track record in business management and environmental disciplines, will provide the Project Management Office (PMO) in order to ensure a management focus on strategy execution.

Other commitments bound by the co-management agreement include:

1. The SPE might pay an annual fee to Government (based on gross incomes and no fees during the first 2 years of activity);
2. An audit of management performances will be performed by an independent organization;
3. Termination clauses of the agreement are included in case of under-performance by the SPE (based on performance quantitative indicators).

Products and services being sold

In the industry of tourism, the SPE fits as a provider of marine scenic beauty and acts as an intermediary between nature and tourism businesses. The SPE will concentrate efforts on 2 primary income generating products: the enhancement of the Under Water (UW) visitor experience and a Marine Life Exhibit center.

The business model is based on generating revenues from statutory visitor fees and innovative tourism activities.

The revenues will improve the MPA management efficiency. MPAs are expected to improve marine biodiversity and generate a sustainable source of food and incomes for local communities, opportunities for tourism businesses and protection for coastal properties and beaches. The MPAs will also contribute to a climate-change resilient economy.

Cash flows and commercial sustainability

On average, each SPE is expected to generate annual revenues comprised between US\$1M and US\$2M. This is equivalent to approximately 150 000 visitors annually paying the visitor fee and/or the entrance fees to the visitor centre.

The fixed/minimum operation expenses (Opex) sum US\$0.7M per year (in average per SPE) and cover Improvement of ecosystems, Community engagement, Community livelihood enhancement, Zonation and compliance, Support to tourism activities, Maintenance and Management

As in any non-profit Company, benefits will be reinvested in the SPE.

The break-even point or BEP, where total costs and total revenue are equal, is expected 2-3 years after the start of the SPE activities.

The debt financing (i.e. the loan) will be used mainly to finance the up-front capital expenditures (Capex) of US\$2.5M in average per SPE, covering mainly the purchase of vessels, multimedia visitor centre, buoys, underwater assets and scientific equipment.

External dependencies

The MPA/MMA:

- Presence of local NGO(s) with a good track record. The availability of local actors interested and willing to participate in management via the SPE. The make-up of this organization will be context dependent and will require several representatives from a wide-ranging array of disciplines (e.g. environmental NGOs, businesses, research institutions, philanthropists). It is therefore not likely to be an onerous exercise, as these groups in most places already have an interest in improved management of marine ecosystems.
- Already designated or imminent designation by central or local Government in charge of the MPA management clearly recognised Inadequate management / insufficient funding (Paper park). Multiple options: one-single MPA, multiple small MMAs, network, etc.
- Existence of a regulatory framework for PPP and more specifically co-management agreements for Protected Areas (e.g. in Dominican Republic); Regulations are important to ensure transparency in the process and define the safeguards for government.
- Existence of a regulatory framework for Fisheries, Sewage Water, Environmental Impact Assessment.

The tourism context

- A minimum of 100,000 “blue” tourists per year, (e.g. diving, snorkelling, day-tours, water sports, jet-skis).
- Consolidated tourism infrastructure in the vicinity of the area (transport, hotels, etc.) Either national or international User fees with low price (if already established).
- A minimum of 200k visitors/passengers per year visiting the area (e.g. beach, terrestrial, cultural).

The legal context

- Public agency(-ies) clearly identified for signing the co-management agreement.
- Political willingness to prioritize efficient management and regulation of the MPAs. This is highly dependent on who is in power at various positions of the government, and therefore subject to change due to government priorities, elections etc.; Note that the co-management agreement is legally binding, so once signed, the process should continue regardless of the power structure. The agreement is a 10-year renewable agreement.
- One or several champion(s) with enough capacity to hold this kind of project. If possible, support from a local well-established NGO.

Risk management

Market risks associated with the size and concentration of the customer base

Here, risk is defined as the chance an investment’s actual return will differ from the expected return. There is a commercial risk due to the concentration of the customer base in the tourism sector. Several factors can affect the development of tourism activities as a successful tool for revenue generation. Amongst these are the seasonality and volatility of tourism demand. Tourism levels can drop sharply where there are security concerns in any part of a country or region, even if a protected area is itself safe to visit. The sector can also become competitive, and demand may drop as competing sites or destinations become available, or tourism fashions change.

While the global scale of tourism is enormous, the range of travel and tourism possibilities from which tourists can select is also vast: specific marketing campaigns will be necessary for a protected area to be successful in attracting a regular flow of tourists. The product (i.e. the MPA) must highlight the nature tourism experiences that visitors will not be able to experience elsewhere (e.g. emblematic species, unique natural and cultural experiences). The product can be diversified to meet a larger target audience by tailoring the activities, such as promoting the quality of dive sites for divers or highlighting activities like marine life exhibit centers for

families with young children. The marketing can be done through various distribution channels (e.g. internet advertisement, travel agencies) to match ecotourism opportunities with potential ecotourists.

Nonetheless, this risk is mitigated in consolidated tourism destinations. The size of the market (>1M visitors per annum, >10 000 hotel rooms) and a positive track record of 10 years growth have shown that the target countries remain stable tourism destinations even during adverse economic conditions.

1. Investment delivering estimated financial returns

Financial under performance (and potentially payment default) might occur from insufficient incomes to cover an elevated operational expenses (Opex). This risk is nonetheless very limited as fixed costs are covered even with only a third of the existing MPA users.

The BEP in terms of number of visitors to cover the fixed costs are significantly lower than the current number of visitors. Management will control for Opex to evolve relatively in accordance with the flows of incomes (e.g. recruitments, marketing costs, environmental activities). All projections on market shares have been conservative.

2. Adequate enforcement to avoid poor performance of the MPA's marine conservation objectives

Ongoing training and financial incentives should result in an increase in the number of enforcement personnel with regulatory abilities. The proposed establishment of enforcement for the MPAs will see “soft enforcement” from the SPE staff (e.g. limited police functions as they can't make arrest) and “hard enforcement” from the regulatory agencies (full police functions); Coast Guard and Marine Police. The agreement in some cases allows for the Government to appoint officers in the SPE with various powers of searching and detaining for marine infractions. This would complement the MPA's enforcement capacity. In addition, self-enforcement from Fishers and other stakeholders will be encouraged via education and financial incentives.

3. Conservation measures implemented by the MPA to yield expected improvements in marine ecosystem health

Conservations measures implemented for the MPA will be based on the best available science. The monitoring programmes will allow for timely assessment of ecosystem health and determination if the measures are working, using the baseline as reference. Scientific staff will be obliged to keep current with recent advances in science and if measures are not working, actions will be changed. It is important to note that actions will not only be based on natural science, but also on social sciences (e.g. socio-economic monitoring of metrics such as employment, wages and local engagement).

4. Changes in governments and policies can result in an environment less conducive to ecological and financial returns

Ongoing investment in informed communities and stakeholders through trainings and awareness campaigns will allow for a powerful “backbone” that can weather changes in government. It will be crucial to have a SPE Manager, who can communicate effectively both with governments and communities, to ensure that support for the MPAs continue.

5. Risk of hurricanes & other natural disasters

As evidenced in 2017, hurricanes can almost completely “level” islands and so impact their ability to generate revenue from tourism, for a time. The growth forecast for 2017 has been reviewed to be between one and two per cent due to hurricanes – Irma and Maria – affecting Anguilla, Barbuda, the British Virgin Islands, Dominica, Puerto Rico, both Dutch and French Saint Martin and the US Virgin Islands. Updated hurricane codes & policies are being developed for the Caribbean to assist in strengthening buildings and protecting assets, these will be incorporated as far as possible in the design and operation of the visitor centre and MPA.

iv. The investment model

The financial instruments being sought to fund the business model

The structure relies on debt financing to finance initial capital expenditure (Capex).

Grants, non-repayable funds disbursed often by a government or other donor organisation, are critical to cover the development phase of each project related to the core disciplines of:

1. MPA business planning and scoping; design the revenue and business models, analyse risk and propose de-risking strategies;
2. Participate in the implementation of operational, legal and financial arrangements (incl. fundraising);
3. Define impacts and Key Performance Indicators framework;
4. Assist investors with the documentation and due diligence required for the different investment committees.

The relative size of these instruments and basic information on their terms

The capital expenditure (Capex) of each SPE is financed with a loan contracted with impact investors; For the target of 10 SPEs in the next years, the instrument size is approximately US\$25M;

The average debt is US\$2.5M per SPE with the following characteristics:

- 8-year term
- Above market interest rate coupon
- First 2 years with no capital payback, in other words a 2 years' grace period before lenders receive payments

Investor types and the finance they provide at different stages of project maturity

The investor type is: international impact investors (Development Finance Institutions (DFI), private funds), and national stakeholders (High-net-worth individual (HNWI)).

Investor types and the finance they provide at different stages of project maturity

The Investors take the following risk: market risk (e.g. tourism cycles), management risk (e.g. mismanagement) and environmental risks (e.g. major climate adverse events).

No collateral guarantee is asked to the SPE investee to secure debt payback. A guarantee is an agreement from a third-party lending institution or insurer which guarantees that losses will be recovered in the event of the borrower failing to pay back the debt also known as defaulting on the loan.

Some investors benefit from a USAID Development Credit Authority (DCA) guarantee which provides a 50% shared loss facility on invested capital.

The exit strategy employed

The overall lifetime of the investment is the same as the maturity of the debt (final payment date of a loan). As the debtor SPE pays down the debt, the investment is paid back.

The SPE will be capitalized from the revenue streams from user fees and visitor centre. The marine protected areas will continue to exist and will be efficiently managed by the SPE and other local partners.

Innovative features of the investment model

It is a business-model based innovation (as opposed to product or process related), which is focused on ensuring that revenue generated from the ecosystem services of marine ecosystems, pays for marine conservation and might even generate additional profit. The model (co-management MPA) is not "business as usual" with the global majority of MPAs being managed and funded by governments, or via NGOs and grants. This model "breaks that "mould" and sees private sector investment complementing that of governments and grants, all working towards improvements in marine conservation actions.

Replicability and Scalability

The current projects are in Antigua & Barbuda, Bahamas, Barbados, Dominican Republic, St Kitts & Nevis. New sites are being explored in the Caribbean (Honduras, Mexico) and Southeast Asia (Cambodia, Indonesia, Philippines). Countries with the MPA/MMA, touring, and legal context external dependencies are viable for replication.

Although climate change and acidification are global stressor of coral reefs, local stressors such as destructive fishing practices, careless tourism, pollution, coral mining, and sedimentation are immediate threats to coral¹. The Nature Conservancy reports that, “Over 60% of coral reefs worldwide are directly experiencing one or more local stresses.”² Blue finance directly addresses this issue and is crucial to the regions were projects are underway or are projected.

Almost 95% of coral reefs in Southeast Asia, 75% in the Atlantic Ocean, 65% in the Indian Ocean, 50% in the Pacific, and 14% of Australia’s Great Barrier Reef are threatened. Without actions taken to minimize local stressors, the percent of threatened coral reefs worldwide will rise to 90% by 2030 and close to 100% by 2050. Replication further into these areas is necessary to save these biodiverse fish nurseries that are important to overall abundance of seafood in a world that needs to feed an immensely growing population.

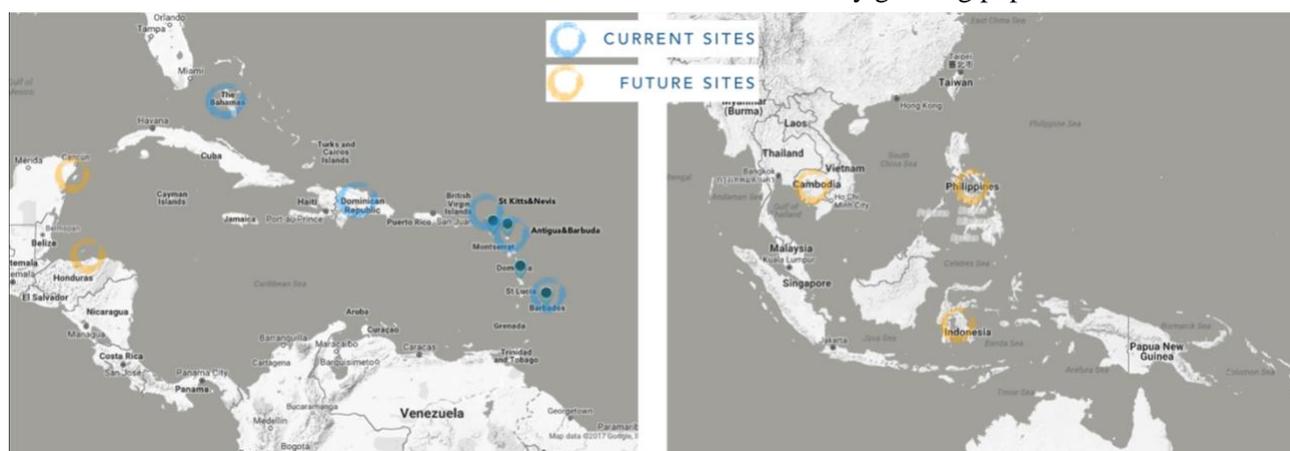


Figure 1 Pascal, Nicolas. CPIC Blueprint: Blue finance

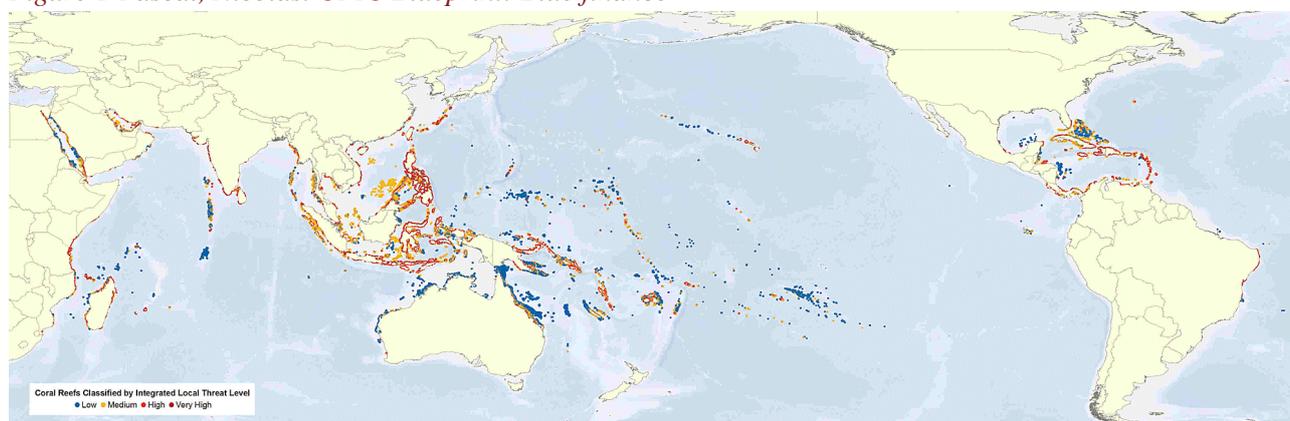


Figure 2. The Nature Conservancy. “Reefs at Risk World Map” Reef Resilience Network, 2018
http://www.reefresilience.org/images/Reefs-at-Risk-World-Map-by-Threat_large.png

¹ WWF - World Wide Fund for Nature. “Coral Reefs: Threats.” WWF, 2017, http://wwf.panda.org/our_work/oceans/coasts/coral_reefs/coral_threats/.

² The Nature Conservancy. “Reefs Are at Risk.” Reef Resilience Network, 2018, <http://www.reefresilience.org/coral-reefs/reefs-and-resilience/reefs-are-at-risk/>

Acknowledgements

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Blue finance develops impact investment solutions for marine conservation, livelihood improvements and climate change resilience. The Blue finance mission is to ensure efficient management and sustainable financing of Marine Protected Areas (MPAs).

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