



Photo: iStock/Damocean

ISSUE BRIEF

Funding ocean conservation and protection through blue bonds



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Series introduction

Global ambitions to protect and conserve the natural world have never been higher. In the face of the mounting biodiversity crisis, nations have set increasingly lofty targets to slow and reverse declines in wildlife. The most notable is the Kunming-Montreal Global Biodiversity Framework's commitments to protect 30 percent of nature and reverse biodiversity loss on land and in the ocean, by 2030. Such ambition must be met with equally strong action, and such action requires significant resources. The question that now looms large is how can we sustainably fund ecosystem protection and conservation at scale now and into the future?

To help answer this question, Our Shared Seas is producing an ongoing series analyzing opportunities to sustainably finance and derisk ecosystem conservation and protection in the marine environment. The task initially appears daunting—marine 30×30 on its own is estimated to cost 10.7 billion USD per year.¹ However, when compared with the ocean's global annual value of 2.5 trillion USD and a benefit/cost ratio of 1.4–2.7 for marine protected areas (MPAs), it quickly becomes clear that protecting and conserving the ocean is more than just a conservation imperative—it is a rational economic investment.²

In this issue, we explore **blue bonds**, an innovative method to leverage debt financing to attract multiple sources of capital into sustainable blue economy projects.

Background

How do blue bonds work?

Similar to a traditional bond, investors purchase a blue bond with the promise of being paid back their principal investment plus a pre-specified interest rate (e.g., 5%) over a specified timeline. Blue bonds generally fund projects in the ocean or in ocean-related sectors that return economic value by supporting sustainable industry, decreasing risk, or restructuring debt. Blue bonds can fund marine-based, environmentally sustainable projects in diverse sectors, such as fisheries, energy, habitat protection (including MPAs), and tourism. Some types of blue bonds are attractive for funding 30x30 because they bring private capital into marine area-based protection, a space largely dominated by public and philanthropic funding. However, this very benefit brings limitations. Unlike public or philanthropic financing, which do not need to receive a rate of return, blue bonds must generate measurable monetary benefits for their purchasers.³

Only five billion USD in blue bonds were issued between 2018 and 2022,⁴ but experts are optimistic that the sector could expand dramatically, based on precedent from the terrestrial sector. A decade ago, the terrestrial-focused green bond economy similarly only totaled a few billion USD, but by 2023 it had skyrocketed to an annual value of 575 billion USD.⁵

There are three methods of issuing a blue bond: 1) as a use of proceeds blue bond, 2) as a method of structuring a debt for nature swap (DFNS), and 3) as a sustainability-linked or outcome-based financing bond. As of the end of 2024, no sustainability-linked bonds (SLBs) have been issued for ocean habitats; all blue bonds have been in the form of use of proceeds, DFNS, or outcome-based financing. All types of bonds can be issued by a sovereign nation, company, or Special Purpose Vehicle (i.e., a separate legal entity established by an organization).

As a use of proceeds bond

In this case, an entity will issue a bond and sell it to investors who are aiming to achieve a return on their investment while supporting environmentally sustainable activities and projects. The capital raised by a blue bond's funds is spent on ocean sustainability-related projects. Because investors must receive a financial return, blue bonds largely fund projects that generate monetary value, such as advancing the sustainable fishing industry or marine-based renewable energy.⁶

However, there are some opportunities for use of proceeds bonds to support non-economic activities, such as area

Blue bond basics

What it is: A type of social impact bond where investors support environmentally sustainable activity and are paid back their principal plus interest

What it funds: Sustainable activities across diverse marine sectors including fisheries, tourism, energy, and habitat protection (including MPAs)

Where it's happened: In countries including Seychelles, China, Indonesia, Belize, Barbados, and Ecuador

Total funding to date: ~6.4 Billion USD⁵¹

What else is needed: Guidelines, standards, additional success stories, increased transparency

protection. Because a blue bond can support an array of projects, as long as the combined revenue from these various projects can support the pre-specified rate of return, the bond will function properly. For instance, if a large portion of the bond supports sustainable economic activities with a high rate of return (e.g., offshore wind), a smaller portion of the bond can fund activities with no rate of return (e.g., marine spatial planning), assuming that between the two projects there is a net positive rate of return. For this reason, experts note that a blue bond's proceeds can be partially spent on activities that do not generate direct economic returns, assuming the remaining amount is spent on revenue-generating activities.

Examples of national sovereign blue bonds: National sovereign blue bonds have been issued by the Seychelles, China, and Indonesia to support sustainable blue economy development, such as buildout of offshore renewables, coastal protection, and sustainable fisheries. In all of these examples, blue bonds have largely funded activities with direct economic returns; in the case of habitat protection, the nature of the activities remains unclear, with few public details on what funding "coastal protection" or "biodiversity conservation" really looks like. This opacity is one of the major concerns with blue bonds. See the [Concerns and limitations](#) section for more details.

Example of private company blue bonds: The energy firm Ørsted sold 100 million EUR in blue bonds to fund biodiversity-positive offshore wind development.⁷

Financing a debt for nature swap

Debt for nature swaps (DFNSs) require an entity to forgive a portion of a country's debt in exchange for that country utilizing a portion of the forgiven debt for environmental protection. Debt swaps do not always utilize a blue bond, but sometimes a blue bond may be issued as part of the debt swap to help finance the process.

Debt swaps can be either bilateral or trilateral; blue bonds are mostly part of trilateral swaps. In a bilateral debt swap, a creditor country allows a debtor country to repurpose some of its previously committed debt for conservation work. Bilateral debt swaps have declined in frequency since the early 2000s. In a trilateral debt swap, third-party donors or lenders support an indebted country to buy back a portion of its privately held debt at a discount, on the condition that a portion of the proceeds of the debt relief is used to fund conservation.⁸

Importantly, DFNSs themselves are not blue bonds; rather blue bonds can form part of the structure of a DFNS. For instance, as part of the 2023 Gabonese DFNS, The Nature Conservancy (TNC) issued a 500 million USD blue bond, which was purchased by investors. TNC then loaned the 500 million USD to Gabon to restructure its debts to achieve a less burdensome rate of return.⁹ The savings from this restructuring will support 30x30 planning and implementation at approximately 5 million USD per year for 15 years, and it will fund an endowment that is expected to grow to 88 million USD by 2038.¹⁰ The Gabonese government will also pay interest on the loan, which flows back to investors via TNC.

Ocean debt swaps have occurred in countries including Seychelles, Belize, Ecuador, and Barbados. These debt swap examples have been spearheaded by TNC, which refreshed the idea of a debt for nature swap (which had previously only been applied in terrestrial ecosystems) and applied it to marine protection.¹¹

As a sustainability-linked or outcome-based financing bond

Sustainability-linked bonds (SLBs) emerged from the private sector as a method to incentivize corporate sustainability. An SLB raises general funds that can be used for any purpose, and it contains a provision that makes payment terms easier for the issuer if the issuer meets sustainability targets.¹²

In 2023, Sovereign SLBs emerged to incentivize indebted countries' sustainability work. The most notable example is

Uruguay, which issued a Sovereign SLB of over 2 billion USD in 2023 to help improve its debt profile with a longer-term, lower-coupon bond that incentivizes improved forest management. The coupon rate for this bond is dependent on multiple sustainability metrics, including forest coverage.¹³ If Uruguay maintains forest coverage to the degree promised in their NDC, the bond's coupon rate decreases, easing payment terms. While the capital raised by the bond does not directly fund area protection (unlike a use of proceeds bond or a DFNS), it does incentivize it. In terms of potential application for marine 30x30, a country could issue a Sovereign SLB to incentivize MPA establishment, with the bond's interest rate being contingent upon achieving MPA coverage or a similar metric.

An outcome-based financing bond (OBF bond) functions similarly to an SLB in that it provides financial incentives to achieve environmental goals. However, unlike an SLB, it rewards the bond purchaser if environmental goals are met, not the bond issuer. Investors purchase the OBF bond, and the revenues from this purchase support an implementer to engage in environmentally friendly activities, such as developing sustainable fisheries. The investors in an OBF bond forego traditional coupon payments.¹⁴ Instead, the investor only receives the value of the coupon payments if the implementer successfully achieves environmental goals. This payment to the investor is known as a "success payment."¹⁵ A third party (e.g., a bilateral institution, a foundation) funds the success payment. This allows financial returns and investment incentives to be tied not only to a project's financial viability, but also to its environmental outcomes.

The primary example of an OBF blue bond is Rare's 2024 small-scale fisher (SSF) impact bond. The SSF bond raised 6 million dollars for Rare to help establish "Managed Access with Reserves" in Indonesia; these Reserves pair sustainable small-scale fishing with ecosystem protection. If Rare's activities achieve verified outcomes such as increased fish biomass, a group of outcome funders will furnish investors with the success payment. If Rare does not achieve the metrics, then the investors do not receive a return on their investment.

The diagrams below illustrate the high-level financial flows for the blue bond issuing structures described above. Please note, all of these are illustrative, and actual examples may differ from the exact format shown. Dashed boxes note where philanthropic and NGO support is a useful, but not inherently necessary, component of the bond development. Solid boxes indicate where the role of NGOs/Philanthropy is a necessary component of the process.

Diagram 1. Sovereign use of proceeds blue bond flow chart

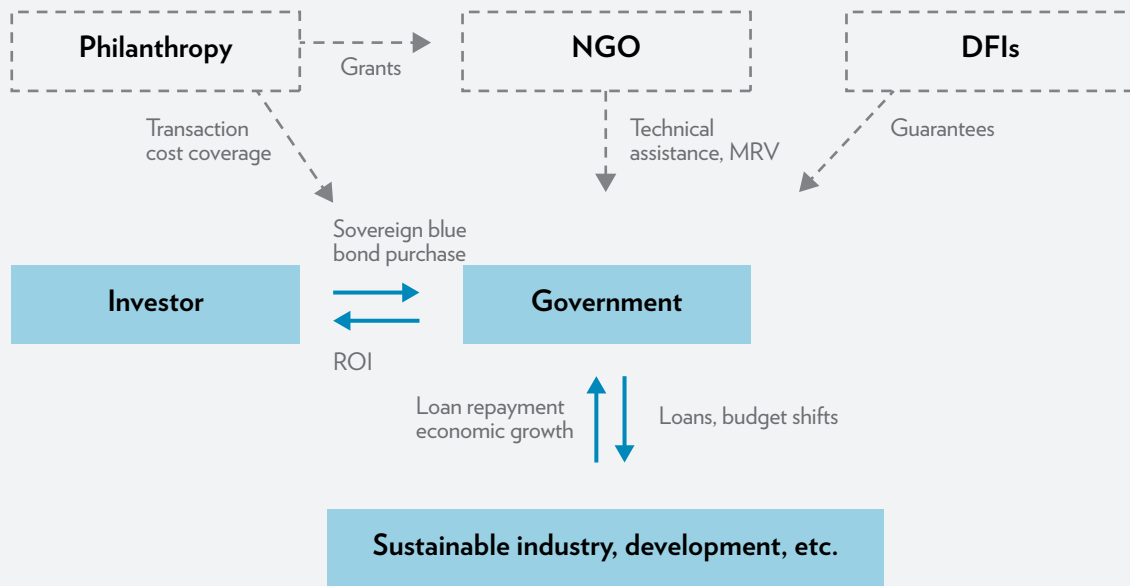
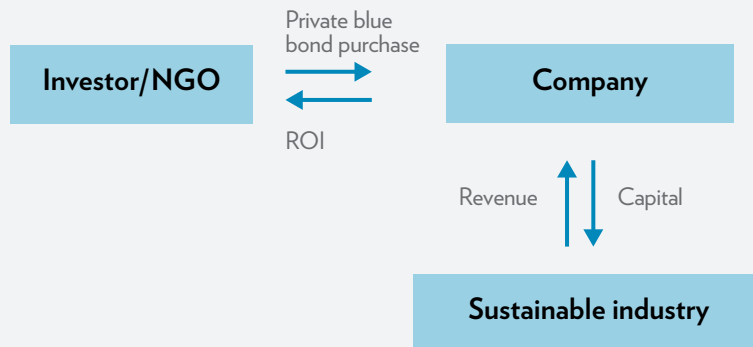


Diagram 2. Private use of proceeds blue bond flow chart



Dashed boxes note where philanthropic and NGO support is a useful, but not inherently necessary, component of the bond development. Solid boxes indicate where the role of NGOs/Philanthropy is a necessary component of the process. Acronyms in use are: Development Finance Institutions (DFI), Monitoring, Reporting, and Verification (MRV), Return on Investment (ROI).

Diagram 3. Bilateral debt for nature swap flow chart

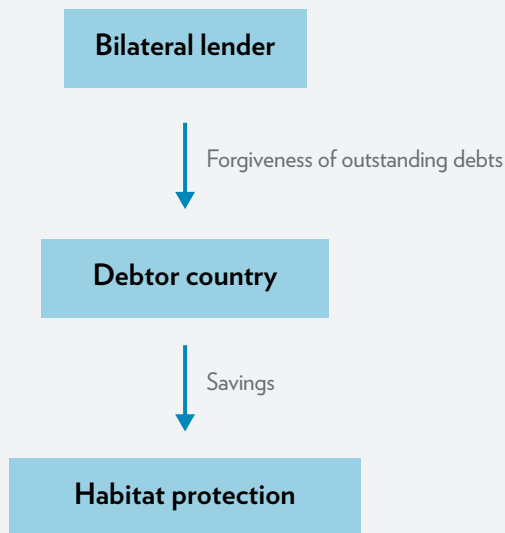
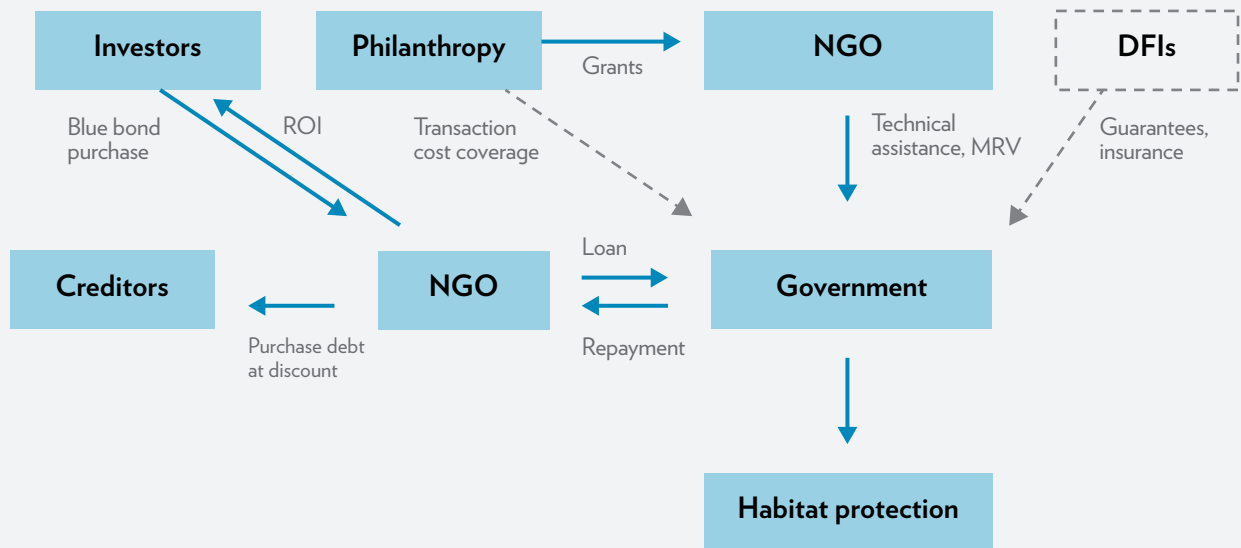


Diagram 4. Trilateral debt for nature swap flow chart
(based on TNC debt swap for Gabon; trilateral swaps can take many forms with many different possible players)



Dashed boxes note where philanthropic and NGO support is a useful, but not inherently necessary, component of the bond development. Solid boxes indicate where the role of NGOs/Philanthropy is a necessary component of the process. Acronyms in use are: Development Finance Institutions (DFI), Monitoring, Reporting, and Verification (MRV), Return on Investment (ROI).

Diagram 5. Sovereign sustainability-linked bond (theoretical for blue space)

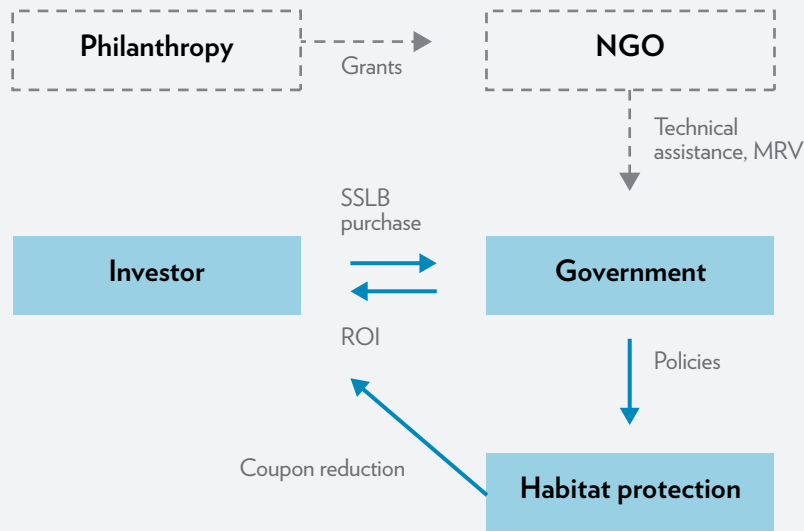
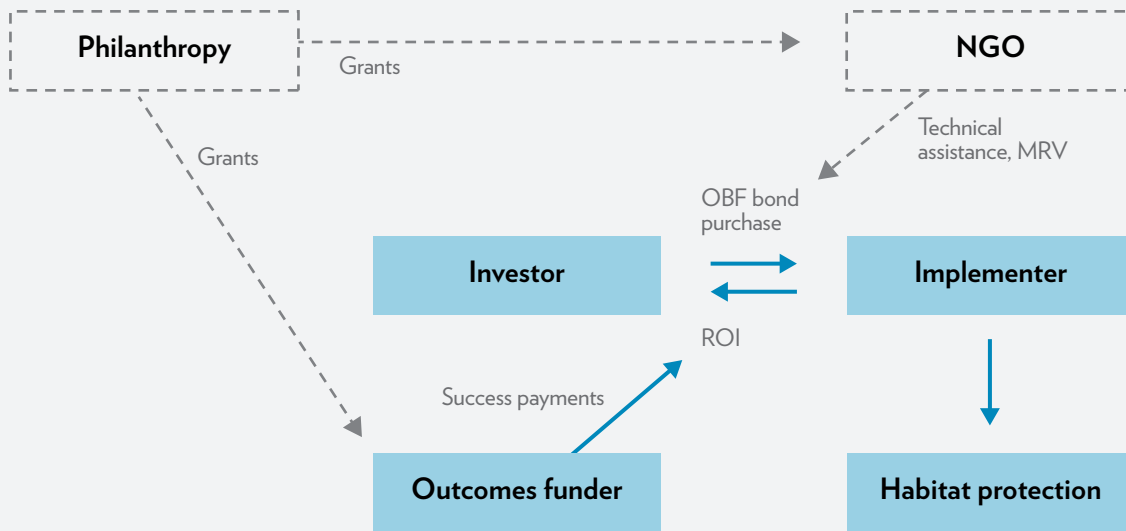


Diagram 6. Outcome-based financing bond flow chart



Dashed boxes note where philanthropic and NGO support is a useful, but not inherently necessary, component of the bond development. Solid boxes indicate where the role of NGOs/Philanthropy is a necessary component of the process. Acronyms in use are: Development Finance Institutions (DFI), Monitoring, Reporting, and Verification (MRV), Return on Investment (ROI).

The benefits of blue bonds

Blue bonds are associated with multiple potential and realized sustainability outcomes, with different issuing methods being fit for different purposes. The issue method also has consequences for other factors, including the size of capital that can be raised and the ease of developing the bond.

In general, activities most closely related to MPA establishment and protected area management are better fits for DFNSs and SLBs than use of proceeds bonds, which require revenue streams that MPAs are unlikely to generate. While sovereign use of proceeds blue bonds can partially fund activities without direct economic returns, such as marine spatial planning, it would be difficult to have a sovereign use of proceeds blue bond that purely funds such activities, as there would be no economic returns to pass along to investors. Private blue bonds are particularly ill positioned to fund MPAs, as the protected area would need to be under private management if it were to be funded by a private blue bond.

Another distinction worth noting is that debt swaps are more challenging to implement, have higher implementation costs, and are subject to greater equity concerns than the other two approaches. They also may mobilize more modest amounts of capital than use of proceeds bonds or SLBs, although the landscape on this is shifting (see details below on [Concerns and limitations](#)). Despite these limitations, debt swaps (particularly trilateral debt swaps) have dramatically increased

in scale over the 21st century; the value of debt for nature swaps between 2021 and 2023 was greater than the combined value of all previous swaps since 1987.¹⁶

One of the most important enabling conditions for blue bond success is that the activity funded by the bond achieves economic returns or savings. In some instances, particularly private blue bonds for offshore industries, achieving this rate of return is relatively simple. In other contexts, however, this mechanism is more complicated. Debt swaps can allow a bond-issuing nation to save money by reducing high-interest-rate debts; these savings can then be partially passed on to investors and the remainder used for ocean conservation activities.¹⁷ In contrast, sovereign use of proceeds blue bonds can fund government payments to achieve one or two objectives: 1) they can fund sustainable blue industries, improving environmental and business outcomes, increasing the value of those industries, and supporting small-scale producers to benefit coastal communities or 2) a portion of funds can support non-economic activities, assuming that the remainder of the funds is diverted toward enough revenue-generating activities to yield a reasonable rate of return.¹⁸

Table 1 lists some of the key features of blue bonds and their degree of relevance across the three different methods of issuing bonds.

Table 1. Key features of blue bonds and the relevance or “fit” of these features across the three different methods for issuing blue bonds. Green indicates high relevance or fit; yellow is medium; red indicates poor relevance/fit.

	Use of proceeds bond	Debt swap	Sustainability-linked or outcome-based financing bond
Applicability to funding/incentivizing 30x30 planning, policy, and establishment	medium	high	high
Applicability to funding/incentivizing improved protected area management	medium	high	high
Applicability to funding/incentivizing sustainable industry, including fisheries, aquaculture, and offshore renewables	high	medium	medium
Strong opportunities for philanthropic support	high	high	high
Strong opportunities to transition funding to private/public sources	high	medium	high
Minimal equity concerns	medium	low	medium
Ease of implementation/low transaction costs	medium	low	medium
Ability to mobilize large amounts of capital from a single bond issuing	high	medium	high

Concerns and limitations

As a relatively nascent space, there are many outstanding questions, concerns, and limitations with blue bonds. **Table 2** highlights some of the key challenges identified to date in the blue bond space and the degree to which these challenges are present across the three different methods of issuing blue bonds. The primary limitation of blue bonds is the requirement for funded activities to generate some degree of financial flows that can repay investors. While the establishment and maintenance of MPAs have been proven to have positive economic returns,¹⁹ those returns do not necessarily flow as clear, direct capital to actors. This contrasts with, for example, energy infrastructure or fisheries development activities.

A second and significant limitation is that many of the nations with the greatest opportunity for marine biodiversity protection have poor credit ratings, making it difficult to attract investment. For instance, when the Seychelles issued

the world's first sovereign blue bond, its credit rating was BB-, which is considered "below investment grade" and presents high risk to investors. The bond only came to fruition after the World Bank and the Global Environment Facility provided 10 million USD in credit enhancement.²⁰ Poor credit is a recurring issue for blue bonds, as a substantial portion of nations with the most at-risk biodiverse areas (e.g., Small Island Developing States) have poor credit ratings that may not be able to attract investors without enhancement. To issue a blue bond, these countries generally need international agencies, development banks, or philanthropy provide guarantees and/or insurance.²¹ By getting support from outside financial institutions, countries are able to enhance their credit rating and generate more investor confidence, although the process of developing and instituting these credit enhancements can be long and challenging, according to experts.

Table 2. Key concerns and limitations of blue bonds, the types of blue bonds they apply to, and a description of their impact.

	Impacted blue bond types	Impact level	Impact description
Equity concerns	Use of proceeds and sustainability-linked/outcome-based	Moderate	Global North investors leveraging inequitable financial pressure; little procedural equity for local communities
	Debt swap	High	Maintains colonial dynamics; historically little funding for or input from local communities
Lack of standards	All	High	No universally accepted standards for developing a blue bond, determining relevant fundable activities, or verifying impact
Poor credit rating	All	High	Nations most in need of support to establish or enforce MPAs often have poor credit to guarantee loans or facilitate debt buy backs, which erodes investor confidence and can keep a blue bond from finding enough willing investors..
High transaction costs	Use of proceeds and sustainability-linked/outcome-based	Moderate	Requires complicated, often international, debt transactions that countries may not have the expertise/capacity to conduct
	Debt swap	High	Requires complicated technical practices to develop and implement the swap
Opaque processes	All	Moderate	Impacted stakeholders, such as local communities near projects, have little insight into the development process for blue bonds.

Sovereign use of proceeds blue bonds or blue bonds issued as part of debt swaps have supported costs of marine spatial planning, MPA expansion, MPA establishment, and MPA management/operations in some countries, such as the Seychelles and Ecuador. However, debt swaps have not experienced steady growth over their nearly 4-decade lifespan; many experts believe this is due to their high transaction costs and tendency to unlock more modest amounts of funding.²² However, with the rise of increasingly large DFNSs, this second concern may be diminishing.

In addition to relatively higher costs and more limited capacity to raise capital, debt swaps also raise concerns about equity. Debt swaps involve Global North countries leveraging debt systems rooted in inequitable colonial dynamics to pressure local governments to protect their ecosystems. Some critics have argued that this is manipulative and pushes the burden of ecosystem protection onto the Global South. Further, critics dislike that these bonds and their negotiations are frequently opaque to local communities and do little to relieve the debt crises of Global South nations, particularly for individuals on the ground who may not receive enhanced social services from debt swaps or who could be actively harmed by them, such as fishers who may lose access to fishing grounds vital to their livelihoods when area protections are put in place.²³ This has become a particular point of contention in the Galapagos DFNS; communities' complaints over inadequate engagement from blue bond developers has launched a formal inquiry, described in greater detail in the case studies section.²⁴

For all three methods of issuance, lack of standardization poses a major challenge. Currently, there are a few guidelines that are meant to support best practices with blue bonds, but there is limited evidence for how much these are being used by industry or blue bond partners. The lack of universal standards, impact measures, transparency methods, and accountability mechanisms makes it challenging to ensure

the bond's conservation and sustainability goals are realized. Ørsted's private blue bond follows the *International Finance Corporation's Guidelines for Blue Finance*,²⁵ which has specific guidelines for blue bonds,²⁶ but there is no evidence that these guidelines have been taken up as the industry standard.²⁷ A second guidance document, the *Blue Natural Capital Framework*, was created in 2019 by IUCN to provide guidance for ensuring blue financing mechanisms achieve environmental and social goals, including specific guidance for blue bonds.²⁸ However, similar to the IFC's guidelines, there is little evidence of whether the IUCN's guidance has been used to ensure blue bonds' impacts.²⁹

Adding to this challenge is a lack of transparency, which results in limited opportunities for local communities to shape a bond's sustainable outcomes and a lack of awareness about a bond's intended conservation and protection impacts. Not all blue bonds publish clear guidance about what activities are "sustainable" enough to merit funding from the bond. For instance, a recent bond from the Indonesian government lists a range of potential activities, including fisheries improvement, coastal protection, and mangrove restoration, but there are no details on what criteria need to be met for a project to qualify under each of the categories, how projects will be vetted for sustainability, or how much financing each effort will receive.³⁰

Overall, the lack of standardization and transparency makes it difficult to both develop projects and monitor and validate those projects to ensure funds are generating environmental benefits. As one 2022 paper observed, the "lack of standardized definitions, metrics, and expertise by issuers and investors are significant barriers to the blue bond market."³¹ However, there have been concerted efforts on this front; experts note that World Wildlife Fund and others are working to adopt the *Science Based Targets for Nature* for blue bonds projects, which would provide a framework for monitoring and reporting.³²

Philanthropy's role

Blue bonds present a strong opportunity to move the cost of habitat conservation and protection away from philanthropy (an inherently short-term and limited resource) to the more durable dollars of the private sector. However, investors remain cautious given the novelty of blue bonds and the frequently poor credit ratings of the nations best suited to issue them (based on their ocean conservation and restoration potential). Philanthropy's more risk-tolerant financing can play an important role in helping to derisk the field.

There are multiple ways in which derisking can occur, including building the architecture for blue bonds, covering transaction costs, and conducting analyses of bond performance.

- **Technical assistance for bond development.** Philanthropic funds have been instrumental in supporting the nonprofit organizations crafting the architecture of blue bonds, such as The Nature Conservancy, and experts have noted that technical support and expertise are one of the primary limiting factors for blue bonds. While many investors have expressed interest in purchasing blue bonds, and many nations have expressed interest in issuing them, neither has the expertise needed to launch an effective bond; funding experts to fill this gap is a strong opportunity for philanthropy. Providing resources to secure technical expertise is even more important given the lack of standardization.
- **Covering transaction costs.** For the Seychelles' sovereign blue bond, the Rockefeller Foundation provided support to cover the substantial transaction costs associated with developing the first-of-its-kind financing mechanism.³⁵
- **Monitoring, reporting, and verification (MRV).** Currently, there is very limited funding dedicated to assessing blue bonds' performance by reliable, non-partisan third parties.^{34, 35} Without effective MRV, it is difficult to know whether and how effectively blue bonds achieve conservation mechanisms. Further, MRV is necessary to continuously improve blue bonds to maximize their environmental, social, and economic benefits. Some experts have voiced concerns that, without standards and with minimal verification of sustainability, there may be some sovereign blue bonds emerging that have limited environmental benefits.
- **Funding blue bonds at the junior level.** Philanthropy can provide a small amount of initial capital for bond purchases as the "junior funder," which derisks the bond for larger "senior funders." The junior funder receives debt payments second to the senior funder, making it a strong opportunity for philanthropy's risk-tolerant capital that can risk not receiving a return on investment.
- **Servicing "success payments" for outcome-based financing.** Philanthropy can agree to provide the success payment for outcome-based bonds, providing funders with a return if environmental goals are achieved. Because success payments are a net cost to the entity paying them, this is a strong role for philanthropies.
- **Bond guaranteeing.** Some experts have also suggested that philanthropies could help guarantee bonds issued by nations with poor credit. The guarantee itself is often covered by larger development financial institutions (e.g., the World Bank³⁶ or the US International Development Finance Corporation³⁷) that are more readily able to take on the size and insurance-style funding of bond guarantees. However, philanthropy can pay for the costs associated with developing and instituting the guarantee, as this process is long and challenging. Further, it is not unheard of for philanthropists themselves to guarantee a bond; in 2024, Builders Vision provided a co-guarantee for the Bahamas blue bond.³⁸

Case studies: sovereign use of proceeds, debt swap, and private use of proceeds

The Seychelles, the first sovereign use of proceeds blue bond

In 2018, the Republic of Seychelles, with support from TNC, launched the world's first ever sovereign blue bond. While other blue bonds had been developed before that (including a separate 2016 bond also in the Seychelles),³⁹ they had been issued by other parties as part of debt swaps. The Seychelles issued 15 million USD in sovereign blue bonds, which were purchased by international investors at a coupon rate of 6.5% and with a 10-year maturation timeline, to be paid out in three equal sums in 2026, 2027, and 2028.⁴⁰

The bonds were issued in part through a 5 million USD donation from the Global Environmental Facility and a 5 million USD guarantee from the World Bank. These supportive mechanisms allowed the Seychelles to decrease its own responsibility for the coupon from 6.5% to 2.8%, while also providing guarantees to investors that bolstered the Seychelles' poor credit rating. The funding from these bonds has supported expansion and increased sustainability of the fishing sector in the Seychelles. Fishing is the Seychelles' second largest sector, behind tourism, and it employs 17% of the country's population. The government hopes that by expanding and diversifying the sector, the country will be more resilient in the face of stressors and shocks from climate change. The bond supported both revenue-generating activities (e.g., loans to fishers and expansion of export markets) and non-revenue-generating activities (e.g., development of a sustainable fishing plan), which allowed it to maintain a sustainability focus.

Since this initial sovereign blue bond, several other countries have issued sovereign blue bonds, most notably Palau, Fiji, Indonesia, Portugal,⁴¹ China,⁴² and Japan, all within the low millions or tens of millions of USD. Notably, information about these bonds is difficult to find, especially for sovereign bonds that were developed without the support of environmental NGOs (e.g., the Indonesian example described above). However, while the market is still young, uncertain, and opaque, there is optimism across the blue financing sector that, over the coming decade, blue bonds could achieve a similarly meteoric rise as their green counterparts.

Ecuador, the world's largest debt for nature swap

In 2023, following the historic biodiversity protection and funding agreements of COP15 and amidst its own increasing debt crisis, Ecuador finalized the largest debt for nature swap ever recorded. The DFNS refinanced over 1.6 billion USD of Ecuador's debt to open 323 million USD of new funding for conservation efforts and sustainable activities in Ecuador.⁴³ The size of this transaction was monumental; it refinanced almost as much debt as every other previous DFNS combined.⁴⁴

The DFNS was developed as global creditors became increasingly nervous about the state of Ecuador's finances and the high potential for the country to default on existing loans. This market uncertainty led creditors to agree to sell 1.6 billion USD in outstanding debt to the bank Credit Suisse for only 656 million USD (approximately 40 cents on the dollar). Credit Suisse then forgave approximately 1 billion USD of the debt and opened a new line of credit for Ecuador, called the "Galapagos Bond," valued at 656 million USD. The bond required Ecuador to guarantee that 323 million USD of this value would be spent on enhanced biodiversity protections in the Galapagos Islands. The new bond has an 18.5-year payback period and a 5.645% coupon rate. The bond was supported with a 75 million USD guarantee from the Inter-American Development Bank (IDB) and 656 million USD in political risk insurance from the US International Development Finance Corporation.⁴⁵



Galapagos Islands. Photo: iStock/Konstik

The Ecuador DFNS will primarily fund improved habitat and species protections in the Galapagos Marine Reserve and the establishment of the new Reserva Marina Hermandad MPA. The funding will also capitalize a new endowment for biodiversity protection in Ecuador, whose investments will add an estimated 130 million USD in additional funding over the 18-year lifetime of the bond, bringing the total finance generated from the DFNS to approximately 450 million USD.⁴⁶

To secure both the debt refinancing and the guarantee/political insurance, Ecuador had to prove that it utilized a transparent, inclusive process to align on the conservation goals and projects that the bond will fund. Thus, the DFNS's conservation funding commitments were developed through consultations with fishers, local communities, academics, and environmental experts.⁴⁷

However, in the year since its close, the bond has been scrutinized for violating the IDB's transparency policies, following local groups' complaints that they were not adequately engaged with accessible, relevant information during the DFNS's development. This has resulted in a formal inquiry from the IDB's independent investigation arm, and should it be found that IDB policy was violated, corrective actions to achieve adequate transparency may be required.⁴⁸

Ørsted's nature positive offshore wind, a private use of proceeds blue bond

In 2023, Danish energy company Ørsted issued a 100 million EUR, 5-year private blue bond to support biodiversity-positive offshore renewable energy development. The bond's net proceeds support biodiversity research and monitoring, impact mitigation, species restoration, and ecosystem restoration activities.⁴⁹

The central tenant undergirding the blue bond is the notion of nature positivity, in which a business's activities don't just mitigate environmental harm but generate environmental benefits. Ørsted aims for their projects to increase biodiversity in the habitats where their offshore wind turbines are sited. By funding initial activities with this blue bond, Ørsted aims to make it possible for all of its offshore renewable energy to be nature-positive by 2030.

Ørsted's pioneering bond indicates how private blue bonds can be used to minimize blue industry's environmental impact and contribute to filling the biodiversity funding gap.⁵⁰ While not a formal method of ecosystem protection, these bonds draw in additional private finance for sustainable blue industry.



Offshore wind. Photo: iStock/Wirestock

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<https://oursharedseas.com/>

Endnotes

- 1 The estimated range for annual cost if 5-19 billion USD
- 2 https://wedocs.unep.org/bitstream/handle/20.500.11822/40275/MPA_Finance.pdf?sequence=3&isAllowed=y
- 3 <https://www.pewtrusts.org/-/media/assets/2022/07/funding-the-big-blue-offshore-and-high-seas-marine-protected-area-finance.pdf>
- 4 <https://www.man.com/maninstitute/blue-bonds-sustainable-debt#:~:text=Since%20the%20debut%20of%20blue,of%20the%20sustainable%20debt%20market.>
- 5 <https://www.bloomberg.com/professional/insights/trading/green-bonds-reached-new-heights-in-2023/>
- 6 <https://www.pewtrusts.org/-/media/assets/2022/07/funding-the-big-blue-offshore-and-high-seas-marine-protected-area-finance.pdf>
- 7 <https://orsted.com/en/media/news/2023/06/20230608684811>
- 8 <https://www.imf.org/en/Publications/Policy-Papers/Issues/2024/08/05/Debt-for-Development-Swaps-An-Approach-Framework-553146>
- 9 <https://www.nature.org/en-us/newsroom/tnc-announces-debt-conversion-for-ocean-conservation-in-gabon/>
- 10 <https://www.nature.org/en-us/newsroom/tnc-announces-debt-conversion-for-ocean-conservation-in-gabon/>
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