Debt-for-nature swaps in the blue economy

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Momentum for debt-for-nature swaps is likely to build in the coming years. The sovereign debt woes of developing countries are expected to continue alongside the urgency to invest in curbing climate change, biodiversity loss and ocean degradation.

While this can generate important funding for global economic and environmental stability, debt swaps will neither provide sufficient relief from sovereign debt stress nor reduce the vulnerability of debtor countries to global shocks. It is therefore critical that momentum in the G20 Common Framework for Debt Treatment, agreed in November 2022, is ramped up.

This is admittedly much easier said than done. The Framework is challenged by complex procedures in the coordination amongst creditors (including private bondholders), difficult geopolitical dynamics, extremely complex technicalities on the comparability of debt treatment and terms of debt restructuring and, most importantly, poor transparency on public debt by indebted countries and certain creditors. As private creditors become involved in accepting haircuts and investing in bond issuances related to swaps, beneficiary nations should expect enhanced accountability and transparency in the administration of these transactions.

Developing countries also need to anticipate that time, complexity, and costs will be involved due to the financial engineering as well as legal due diligence required in debt-for-nature swaps. The deal negotiation, actual transaction and completion of due diligence can take many years. This is compounded by the uncertainty surrounding debtor countries’ ability to commit seriously to the sustainable use of marine environments – namely, due to low levels of in-country expertise on the sustainable management of the blue economy. The blue economy, which includes a plethora of industries – from fisheries to aquaculture, tourism, and renewable energy – lacks both funding for implementation and concrete action on sustainable development.

To address these complex challenges, there is a need for international organisations with strong mandates and expertise, such as the G20 Sustainable Finance Working Group (SFWG), along with the International Capital Markets Association (ICMA) and the Global Environment Facility (GEF), to begin discussions on a global framework on debt-for-nature swaps – on land as well as for the blue economy. Such a framework could include supplementary guidance on innovative ways for swap proceeds to benefit food security, climate mitigation and adaptation, sustainable agriculture and much more.

Such a framework would also increase the understanding and preparedness of indebted countries to negotiate debt swaps and, more critically, develop their institutional capacities to carefully administer proceeds, carry out projects on the sustainable use of natural resources, and report on progress on the ground.
The resurgence of debt-for-nature swaps

The debt-for-nature swap model is not new. Debt-for-environment swaps were first discussed and agreed in the 1980s. However, the current debt crisis is forcing some indebted countries to look for innovative ways to restructure their sovereign debt. One approach that is enjoying a resurgence is debt-for-nature swaps – i.e., the restructuring of sovereign debt in which proceeds are allocated for nature conservation.

The most recent deal made headlines because of its size: Ecuador’s Galapagos Debt Swap. Concluded in June 2023 for USD 11 billion, it marks a significant turning point for three reasons. First, it crosses the USD 1 billion threshold – all other swaps have been largely valued at under USD 500 million. Secondly, the debt swapped was awarded a provisional investment grade rating of Aa2 by Moody’s, a credit rating agency, which is 16 notches above that of Ecuador’s sovereign credit rating of Caa3 (Bryan & Daniels, 2023). Thirdly, one of the world’s largest institutional investors, Legal & General, bought USD 250 million of the bonds being ‘swapped.’ This marks the large-scale entry of institutional investors in the debt-for-nature swap arena.

Many developing countries that are debt-stressed and nature-rich are becoming interested in debt-for-nature swaps. What remains largely unexplored is the potential for these swaps to fund both conservation and sustainable use – which includes the sustainable farming of crops, livestock, fisheries and aquaculture. This is important, as nature conservation and protected areas include demarcated ‘sustainable use’ zones in which various forms of nature-integrated agriculture, aquaculture and fisheries are permitted – and even encouraged. Notably, farmers and producers...
working within these zones are often the first to experiment and practice sustainable designs in agriculture and aquaculture. If proceeds from debt-for-nature swaps increase funding for sustainable farming and food production in earmarked sustainable use areas and buffer zones, replication may spill over and drive the adoption of sustainable practices more widely.

This commentary focuses on ‘blue’ debt swaps, the proceeds of which are targeted towards coastal and marine conservation. It examines the opportunities and challenges of debt-for-nature swaps with a focus on the conclusion of three recent swaps in Ecuador (2023), Belize (2021), and the Seychelles (2015). The proceeds of these recent swaps are all dedicated to marine conservation and the wider blue economy. This includes sustainable on-shore and near-shore aquaculture and artisanal fisheries, which employ 177.5 million people across the world. Aquatic plants and animals also provide over 3.3 billion people with 20% of the average per capita intake of animal proteins. (Pita, 2022). This makes marine conservation and sustainable fisheries critical to both food security, improved nutrition and the broader remit if both SDG 2, Zero hunger and SDG 14, Life below water.

The correlation between undernourishment and sovereign debt is particularly noteworthy. Studying the 28+ low-income countries that the IMF classifies as “in or at high risk of debt distress,” seven appear to already be food insecure. The figure below shows food security vs. government debt to GDP as of April 2022.

Source: Centre for Global Development, 2022.
It is also noteworthy that funding for marine and coastal conservation, including as part of Nationally Determined Contributions and National Adaptation Plans, lags terrestrial efforts (Barber et al., 2021). In addition, the United Nations (UN) Sustainable Development Goal 14, Life Below Water, remains among the least funded of the SDGs.

While natural climate solutions receive less than 3% of all climate finance, only 1% is directed at oceans (Barber et al, 2021). The annual ocean conservation financing gap is estimated at USD 174.52 billion, while current spending globally amounts to USD 25.5 billion (Johansen & Vestvik, 2020). Furthermore, the UN Food and Agriculture Organization’s 2022 report on the State of Global Fisheries and Aquaculture highlights that, while the demand for aquatic animals and plants is rising, the health of oceans continue to decline due to pollution, overfishing and poor management.
GLOSSARY

• **Blue economy**: Sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of the ocean ecosystem (World Bank, 2017). This includes, for example, artisanal fisheries and sustainable aquaculture.

• **Bond**: Type of security that consists in a loan made by an investor (bondholder) to a borrower (issuer), in exchange for which the investor is paid by the borrower (issuer) a specified rate of interest over the life of the bond to repay its principal (i.e., amount borrowed) at maturity.

• **Coupon**: Interest payment made by the issuer to the bondholder from the issuance of the bond until the date of maturity.

• **Cross default provision**: Provision in a loan agreement that puts a borrower in default if there is a default on another obligation.

• **Debt conversion**: Process by which debt is converted into equity.

• **Debt swap**: Type of debt conversion designed as a refinancing deal by which a debt holder gets an equity position in exchange for the cancellation of the debt.

• **Facility agent**: Representative of the syndicate of lenders in a syndicated loan.

• **Grace period**: Length of time during which the interest payment (coupon) can still be made without defaulting on a bond.

• **Note**: Legal document similar to a bond in that the noteholder is paid an interest and is repaid the principal at maturity, but for a shorter maturity period than bonds (generally less than ten years).

• **Principal reinstatement**: Process by which the original principal amount of a loan or debt is restored after it has been reduced or modified.

• **Reinsurance**: Type of insurance that an insurance company (cedant) purchases from another insurance company (reinsurer) to reduce its risk in case of a major claims event.

• **Repackaging vehicle**: Special purpose vehicle that are subsequently securitized and sold off to investors in repackaging transactions (repacks).

• **Special purpose vehicle**: Legal entity created for a specific purpose (e.g., as a special investment vehicle).

• **Step-up bond**: Type of bond that includes a feature that allows for coupon payment increases over the life of a bond according to a pre-determined schedule.

• **Syndicated loan**: Type of loan that is provided by a group of lenders (a syndicate), and is structured, arranged, and administered by one or several commercial banks or investment banks (lead arrangers).

• **Term facility**: Type of loan that, unlike a revolving credit facility, has a fixed repayment schedule and is typically repaid over a fixed period of time (usually between one and five years).
What are sovereign debt-for-nature swaps?

Sovereign debt-for-nature swaps are highly complex financial transactions through which an indebted country repurchases or restructures a portion of its debt and uses the proceeds of that repurchase/restructuring for the conservation of nature and sustainable management and use of natural resources.

The commitment of the indebted country to use the proceeds of the swap for nature conservation is key in these transactions, with the proceeds of a swap earmarked for financing the conservation and regeneration of targeted landscapes or seascapes, as agreed with creditors. Most debt swaps involve promises to preserve or regenerate ecological gains, mitigate climate change, or even compensate (quantitatively or qualitatively) for ecological losses stemming from human activities (Levrel, 2020).

Debt swaps involve several counterparties and a multitude of concurrent processes.

Debt swaps involving governments: Many of the swaps prior to 2015 were arranged between governments - that of the indebted country and one or more creditor governments. The transactions were assisted by international non-governmental organisations (NGOs) or donor agencies, and the restructuring of the debt was performed by an international commercial bank. The financial and political conditions as well as the nature conservation commitments were agreed between the creditor and debtor governments and, once agreement was reached, the indebted country proceeded to repurchase or restructure its debt at a discounted price as follows:

- When the debt was **restructured**, the funds dedicated to nature conservation have typically been the equivalent of the interest rate that the debtor government would have paid to creditor governments if the debt had not been restructured.
- When the debt was **repurchased**, the value set aside for nature conservation has typically been a percentage of the buyback price.
- In both cases, the proceeds of the swap are typically held in a trust or similar special purpose vehicle in local currency.

Debt swaps involving private creditors: In recent years, the number of swaps involving private creditors, in addition to indebted governments and international NGOs, has been growing. The role of NGOs is particularly important as:
They raise funds to repurchase the debt of the indebted country (at a discount compared to face value) through dedicated loans provided by donor development agencies. The debt swaps in Ecuador, the Seychelles and Belize involved debt repurchases by international NGOs who raised concessional funding, expressly for this purpose, primarily from the United States International Development Finance Corporation (DFC).

The debtor country then repays the NGO at a price higher than the first buyback, but below the nominal value of the original debt. The financial structuring of the entire transition is undertaken by an international commercial bank.

The funds generated by this transaction are transferred, in local currency, to a dedicated special purpose vehicle (fund or trust) that administers its use per the terms and conditions agreed between the debtor country and its former private creditors.

An important feature of all debt swaps is that the transaction is backed up by:

- a credit guarantee, usually provided by a multilateral development bank; and,
- a reinsurance cover provided by several international insurance providers.
CASE STUDIES

The following case studies detail how this complex process occurred for the blue debt swaps in:

Ecuador
Belize
The Seychelles
Case study: Ecuador blue debt swap

The largest ever debt-for-nature swap was announced for Ecuador in June 2023.

Other than the government of Ecuador, represented by its Ministry of Economy and Finance and advised by the global law firm Dentons, the deal included many stakeholders:

- Credit Suisse was the global lead arranger, buying back the original debt and converting it into a blue loan to Ecuador through the issuance of a new blue bond.
- The Oceans Finance Company (OFC) acted as project manager, with the assistance of the global law firm Baker McKenzie to set up and structure the Galápagos Life Fund (GLF) in addition to documenting the sustainability commitments embedded in the deal.
- The GLF was set up as a non-profit organisation to direct marine conservation funding to the Galápagos National Park Service as well as direct efforts towards the management, monitoring and enforcement of marine protection in the Galápagos. The GLF is governed by a board of eleven members including five Ecuadorian ministers and six non-government representatives.
- Pew Bertarelli Ocean Legacy acted as a cooperating partner, with technical assistance from Aqua Blue Investments for the development of the GLF and the project.
- OFC’s marine ecosystem manager, Climate Fund Managers (CFM), and the Pew Bertarelli Ocean Legacy provided early-stage capital, established the GLF with Ecuador and will continue providing support to the GLF.
These actors came together for the two components of Ecuador’s debt swap: the debt conversion and funding for the blue economy.

**Debt conversion**

The debt conversion consisted in the repurchase of USD 1.628 billions of original debt at the price of USD 656 million. Credit Suisse bought back a USD 1.006 billion step-up coupon due in 2035 at a 61.5% discount (USD 387.31 million), USD 202 million of a 2030 note at a 46.75% discount (USD 107.565 million), and USD 420 million of a 2040 bond at a 64.5% discount (USD 149.1 million).

This repurchase was financed through the issuance, by Credit Suisse, of the Galápagos Marine Bond worth USD 656 million. The proceeds of these marine conservation-linked bonds were then used to issue a loan of USD 656 million to Ecuador, maturing in 2041 and with a seven-year grace period for principal repayments. The GPS Blue Financing Designated Activity Company (GPS Blue) acted as lender and the Bank of New York Mellon (BNYM) served as facility agent for this fixed-rate term facility. Repayment of the loan by Ecuador will mirror the payments made by the lender as issuer of the blue bonds.

The debt repurchase was made possible thanks to heavy discounts on the original debt, as well as credit enhancements that facilitated more favourable terms on the new debt. For the first time, political risk insurance and guarantees were combined to allow for capital to be mobilised from a variety of sources. Together, these credit enhancement facilities resulted in the new debt receiving a provisional investment grade of Aa2 by Moody’s, sixteen notches higher than the Caa3 ‘junk’ rating for Ecuador’s original debt.

Paradoxically, however, Moody’s still considered the debt conversion as a “distressed exchange and a default” (Reuters, 16 May 2023). Fitch also revised Ecuador’s credit rating from “stable” to “negative” - although the debt for nature swap was not a reason for this downgrade (i.e., Fitch did not consider the transaction a “distressed debt exchange”).

**The below stakeholders provided significant guarantees:**

- The United States International Development Finance Corporation’s (DFC) largest political risk insurance policy to date (USD 656 million) was secured thanks to “significant commitments to continued community engagement and transparency, [including] ongoing environmental and social impact assessments and reporting that detail engagement efforts, stakeholder concerns, and economic and ecological changes.” (DFC, 2023)
- A group of eleven private insurers (including AXA XL, Fidelis MGU, Chubb Global Markets, Sovereign Risk Insurance Ltd, Mosaic, Coface, and others) provided more than 50% reinsurance to facilitate the transaction.
- The Inter-American Development Bank provided a USD 85 million partial credit guarantee to cover the first six quarterly interest coupons, if needed.
Funding for the blue economy

The debt conversion is expected to generate more than USD 1.126 billion in lifetime savings (i.e., reduced debt servicing costs) over time, in addition to more than USD 450 million in funding for the blue economy through the Galápagos Life Fund (GLF), a special purpose vehicle which will fund projects for marine conservation and sustainable use of the Galápagos ecosystem.

Funding flows to the GLF will take the form of quarterly payments of USD 3,012,500 in new funding (USD 223 million over 18.5 years) plus USD 1,352,500 as capital endowment for the GLF (estimated to have grown to USD 227 million by 2041). Beyond the terms of the transaction, the endowment for the GLF will provide a permanent funding source to continue financing the blue economy in the Galápagos Marine Reserve and Hermandad Marine Reserve, both of which are central to Ecuador’s tourism and artisanal fishing sectors.

Beyond their economic value, the Galápagos and Hermandad reserves also host natural capital of a rare and rich value. The forty nautical miles of the Galápagos reserve house thirteen large islands and more than 3,500 species, 25% of which are endemic marine organisms, and 24 species of mammals, two of which are endemic. As for the 60,000 square kilometres of ocean that constitute the Hermandad reserve, they create a corridor of transnational protected areas between the Galápagos and Costa Rica, in addition to representing a habitat of vital importance for threatened shark species. The Hermandad reserve was created through a participatory process involving the government, fishers, academia, and civil society in 2022.

Sustainability commitments were built into the transaction, binding the Ministry of Trade, Investments and Fisheries to meet specified targets by agreed deadlines. Importantly, the specified blue economy commitments and funding priorities were decided by consensus through an inclusive process with numerous formal and informal consultations bringing together artisanal and industrial fisheries as well as local communities.

Overall, the funding will support sustainable use activities that advance the Galápagos’ targets on biodiversity and sustainability, as stipulated in the “30x30” goal agreed at the 15th Conference of the Parties (COP15) to the United Nations Convention on Biological Diversity (CBD). The new funding flows will also support Ecuadorian organizations in conducting research, advancing sustainable fisheries and aquaculture, strengthening climate resilience, and developing a sustainable blue economy.
Conclusion

As noted by Ecuador’s Minister of Foreign Affairs, the transaction “is another example that Ecuador, faithful to its democratic principles, has the confidence and support of organizations and countries that make biodiversity conservation possible. Conservation diplomacy, and these new resources, will enable us to work on a blue economy, promote climate resilience, and support sustainable fishing.” (DFC, 2023)

Despite this great promise, however, the Ecuador debt swap also raises key questions for future transactions of a similar structure and size. Although it is the largest debt-for-nature swap to date, it only represented a relatively small amount of Ecuador’s total debt (about 10% of the country’s USD 16.5 billion sovereign debt). However, this could also be an argument for the potential of debt swaps - converting only 10% of Ecuador’s debt freed up more than USD 1 billion in debt savings and is expected to generate more than USD 450 million in blue economy funding.

One major caveat here concerns the expensive transaction costs that this swap has undoubtedly generated. There is no publicly available data on the price paid for the expertise of the private firms involved in this deal, but one could assume that such fees must have represented a significant portion of the debt savings not converted into blue economy funding. There is thus a critical need to reduce transaction costs of such transactions, so that the potential benefits of debt swaps are maximised.
References


In 2021, Belize and The Nature Conservancy (TNC) completed what was, at the time, the world’s largest debt conversion for the blue economy. The swap reduced national debt by 12% of Belize’s GDP and enabled long-term sustainable financing for conservation, sustainable fisheries, and the blue economy. This arrangement provided Belize with a sustainable plan to restructure and manage its debt while also meeting its financing needs and goals for a sustainable blue economy.

The transaction was innovative, proving that agreements can be reached with multiple and even commercial creditors, with which debt is often more expensive. The involvement of TNC in the Belize deal provided high-level comfort to blue bond investors and credit enhancers regarding the achievement of environment, social, and governance (ESG) outcomes. TNC’s expertise, relationships, and credibility in conservation, science, and finance was thus critical in reassuring all parties in the transaction about the soundness of the deal.
Debt conversion

NatureVest, TNC’s impact investment arm, issued a blue loan (USD 364 million) to Belize through the Belize Blue Investment Company (BBIC), a limited liability company subsidiary of TNC. Much of the loan was used to retire Belize’s original debt (USD 301 million), which was then trading at a steep discount. Belize was able to repurchase a quarter of its public debt, worth USD 553 million, at a more than 45% discount. This reduced the principal amount of Belize’s debt by USD 189 million, reduced debt servicing costs by USD 200 million over 20 years and avoided USD 58.4 million in principal reinstatement in case of default, which had been agreed as part of a previous restructuring.

The remainder of the blue loan served to pre-fund the endowment for a Conversation Fund (USD 23.5 million), cover legal and advisory fees (USD 10 million), and capitalise a debt reserve account (USD 10 million). Consistent with Belize’s debt sustainability strategy, the blue loan also included a USD 18 million original issue discount and featured a step-up coupon schedule. The blue loan was solely financed by Credit Suisse via a repackaging vehicle called Platinum, which Credit Suisse then syndicated to institutional investors (i.e., financed through the issuance of highly rated and low-risk blue bonds on capital markets).

Notably, the blue loan was covered by a political risk insurance policy by the US International Development Finance Corporation (DFC). Insurance from the DFC was possible thanks to the deal’s conservation component. In turn, insurance by the DFC, combined with the debt reserve account, back-to-back structure, and other credit enhancement facilities, made possible the blue bond’s low interest rate, 10-year grace period on principal payments, long maturity of 19 years, and high Aa2 credit rating by Moody’s (16 notches higher than Belize’s sovereign rating of Caa3 at the time). This contributed to enlarging the potential investor base for the blue bonds.

After the transaction, Standard and Poor’s also upgraded Belize’s unsecured foreign currency credit rating from Selective Default to B-, making future borrowing even more affordable.

Furthermore, the world’s first commercial sovereign debt catastrophic insurance cover was built into the loan structure. This parametric insurance, designed by Willis Towers & Watson and underwritten by a subsidiary of Munich Re, provided for debt payments to be triggered by an eligible hurricane event (i.e., hurricane of category 3 at least and in proximity to economic hubs, two hurricanes of any intensity in a 12-month period, or a hurricane of any intensity accompanied by very heavy rainfall). Such an insurance appropriately addressed the IMF warning that natural disasters present a key risk to Belize and followed market guidance to integrate climate insurance products into sovereign debt issuance to improve financial management.
Funding for the blue economy

The blue loan was made conditional on commitments towards the blue economy, namely: protecting 30% of its ocean, including parts of the Mesoamerican Reef, under protection by 2026, using a transparent, participatory Marine Spatial Planning process, and establishing an independent Conservation Fund to allocate the sustainable blue economy funding to in-country partners.

These objectives were formalised in a signed and legally binding agreement between Belize and TNC, valid for 20 years. Per this agreement, Belize is set to pay USD 4.2 million per year in local currency to the Conservation Fund for a 20-year period, to be disbursed as grants to government agencies, NGOs and local businesses and partners working on marine conservation, sustainable fisheries, sustainable aquaculture and wider blue economy projects. This payment more than triples the amount previously allocated from the government budget to marine conservation.

The government payment adds to the USD 23.5 million borrowed through the blue loan to pre-fund an endowment which, assuming a 7% annual return on investment, is expected to grow to more than USD 90 million by 2041. By that time, the endowment will be transferred over to the Conservation Fund and will provide drawdowns that replicate the annual payments initially made by the government of Belize beyond the initial 20-year period.

Together, these flows enabled by the debt conversion and savings are thus estimated to have created nearly USD 180 million in funding in Belize over 20 years. Importantly, if Belize does not follow through on the commitments made in this agreement, it will be required to increase payments towards the blue economy. Furthermore, thanks to a cross default clause with the blue loan, Belize will also face the same penalties whether it defaults on the blue loan or on its payments towards blue economy projects.
References


In the aftermath of the 2008 global financial crisis and after it defaulted on a USD 230 million Eurobond and EUR 54.7 million in private placement¹, the Seychelles agreed to a debt cancellation with the Paris Club² countries. Six years later, in 2015, the Seychelles and the Paris Club reached another deal for debt relief conditional on commitments towards the blue economy (Hunt, 2020).

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¹ / Private placement is similar to an initial public offering (IPO), but securities are sold through a private - rather than public - offering (Ganti, 2023). The Seychelles blue bond, for example, was issued as a private placement sovereign bond (Calvert Impact, n.d.).

² / The Paris Club is an informal group of creditor nations that has 22 permanent members, including major Western European and Scandinavian nations, the United States, the United Kingdom and Japan.
In 2016, the Seychelles concluded a debt swap on USD 21.6 million of its sovereign debt. In recognition of the importance of marine and coastal assets, the debt swap was the first of its kind, negotiated and arranged as a plan to finance the country’s blue economy. It was also combined with the issuance of the first-ever sovereign blue bond in 2018, worth USD 15 million. Together with a discount on the debt, proceeds from the blue bond provided financing for the island nation’s sustainable blue economy and climate adaptation.

The Seychelles Blue Economy Roadmap (SMSP, n.d.) was critical to the credibility of the blue bond plan as well as the success of the blue bond issuance. It highlighted that “Seychelles’ current and future prosperity is uniquely linked to its marine and coastal assets, with fisheries and tourism the two main pillars of its economy, gross domestic product (GDP) and employment.” Indeed, fisheries is the country’s second most important sector after tourism, employing about 17% of its population, and fish products represent around 95% of its domestic exports in value (GEF, 2018). The country roadmap also heightened the ambition to develop a sustainable mariculture (marine farming) sector in the Seychelles, focusing on sustainable aquaculture as a priority means to diversify ocean-based activities and as a principal pillar to the development of the nation’s blue economy (The Commonwealth, n.d.).

1 / A blue bond is a type of green bond that specifically targets marine conservation.
Debt conversion

The Seychelles repurchased USD 21.6 million of its debt from creditors at a 6.5% discount for USD 20.2 million. The debt repurchase was financed through a USD 5 million grant and a USD 15.2 million loan from TNC’s impact investing arm NatureVest. The repurchase of USD 21.6 million was completed through the issuance of two notes to the Seychelles’ Conservation and Climate Adaptation Trust (SeyCCAT), which was established in 2015 as an independent trust to manage proceeds from the debt swap: the first note was for USD 15.2 million, to repay the loan from NatureVest, and the second, for USD 6.4 million (USD 5 million from an impact grant, and USD 1.4 million from the debt discount), to finance future conservation and adaptation activities.

The Seychelles is set to repay the loan from NatureVest through the first note to SeyCCAT at a 3% interest rate over 10 years, resulting in total payments worth USD 17.7 million (including principal and interest) at maturity. The Seychelles would also repay the second note to SeyCCAT through annual payments of USD 432,000 over a period of 20 years. This amount would flow into two vehicles: USD 281,000 per year disbursed annually through the Blue Grants Fund until 2036, and USD 151,000 per year invested through the Blue Endowment Fund and to be disbursed from 2036.

By 2036, the Blue Grants Fund would thus have received and disbursed USD 5.6 million, while the Blue Endowment Fund would have invested USD 3 million and grown to an expected matured value of USD 6.6 million (including principal and interest and assuming compounding interest of 7% annually over 20 years).

Two years after the debt repurchase, in 2018, the Seychelles and World Bank launched the world’s first sovereign blue bond, with a ceiling value of USD 15 million and a maturity of 10 years. The bond raised USD 15 million from three international institutional investors: Calvert Impact Capital, Nuveen, and US-headquartered Prudential Financial. The issuance of this bond was facilitated by the World Bank, in collaboration with several important stakeholders:

- The HRH Prince of Wales’ Charities International Sustainability Unit identified the business case for a sovereign blue bond.
- The World Bank, through its lending arm, the International Bank for Reconstruction and Development (IBRD), provided a partial credit guarantee of USD 5 million, lowering the annual borrowing cost by at least 2%.
- The Global Environment Facility (GEF) provided a second credit enhancement instrument in the form of concessional financing worth USD 5 million at 0.25% over 40 years (with a 10-year grace period), to partially cover interest payments, thus further lowering the annual borrowing cost by 3.7% - from 6.5% to 2.8% (SeyCCAT, n.d.).
- The Rockefeller Foundation covered most of the transaction costs.
- The Standard Chartered Bank and Bank of New York Mellon managed the process and payments.
Funding for the blue economy

The USD 15 million raised through the bond was then allocated between the Blue Grants Fund (USD 3 million in six tranches of USD 500,000 from 2018 to 2023), managed by SeyCCAT and the Blue Investment Fund (USD 12 million), administered by the Development Bank of Seychelles (DBS). Together with the debt swap proceeds, the blue bond proceeds would further capitalise the Blue Grants Fund by USD 3 million, bringing its total value up to USD 8.6 million. Over 20 years, SeyCCAT would thus be able to distribute, through the Blue Endowment Fund and the Blue Grants Fund, about USD 760,000 per year in grants and loans for blue economy activities.

The World Bank is supporting the Seychelles’ efforts to build a diversified blue economy with the Third South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish3), a project that supports countries in the region as they transition their fisheries sectors to sustainable practices, governance, and management (World Bank, 2018).

Both the debt swap and the blue bond provided financing of USD 15 million for the implementation of the Seychelles’ SWIOFish3 project. Another USD 10.3 million was provided by the IBRD (USD 5 million in loans) and by the GEF (USD 5.3 million in grants). The full USD 25.3 million budget for the programme supports four key components: expanded sustainable-use marine protected areas, improved governance of priority fisheries, sustainable development of the blue economy (including aquaculture) and project management and coordination.

Half of the blue bond proceeds capitalizing the Blue Grants Fund (USD 1.5 million, or 10% of the total blue bond proceeds), in addition to half of the GEF’s grant (USD 2.65 million) finance the first component of SWIOFish3, while the other half of these two flows fund the second component of the programme. The third component of SWIOFish3 is funded by the Blue Investment Fund (USD 12 million) and an IBRD loan (USD 4 million), while the fourth and final component of the programme is funded by a second IBRD loan (USD 1 million).
References


Opportunities for debt-for-nature swaps in the blue economy

As demonstrated in the examples above, debt-for-nature swaps present plenty opportunities for debtor countries: reduced sovereign debt burden, increased fiscal space to invest in sustainable development, dedicated funding for landscape/seascape restoration and the sustainable management and use of marine resources, etc. Funding to marine environments are particularly important and as discussed earlier, remain hugely underfunded. In the case of Ecuador, Belize, and the Seychelles, the swaps also provided funding specifically for sustainable aquaculture and artisanal fishing, which are important sources of food, nutrition and income for small-scale producers and local coastal communities.

An example of the momentum around debt swaps is the UN FAO’s Blue Growth Initiative, which “aims to strengthen coastal communities and restore the productive potential of fisheries and aquaculture in order to support food security, poverty alleviation and long-term management of living aquatic resources,” concludes that blue swaps can generate substantial funding to achieve the ambitions of the blue economy (FAO, 2017). According to recent media reports, large pools of capital may be available given the interested in ‘inclusive capitalism’ and the currency of ‘biodiversity’ (Bryan & Daniels, 2023).

Creditors may take comfort in knowing that, as a result of a swap, the debtor country may be better able to meet subsequent debt payments and even set aside funding for sustainable development. The international development community may also welcome reduced risks to global financial stability, while at the same time supporting progress towards the SDGs. The International Institute for the Environment and Development (IIED) estimates that USD 397 billion in external public and publicly guaranteed debt could be written off globally, with 26.3% of that amount – USD 104.5 billion – available for protecting the climate and nature conservation (Patel, 2022). The Nature Conservancy, meanwhile, estimates that as much as USD 2 trillion of developing country debt may be eligible to be converted in a debt-for-nature swap (White, 2023).

This is all good news. When the debt of poor countries is trading at a deep discount, there are real opportunities for (part of) it to be repurchased or restructured and thus generate funding for nature-positive activities. This is especially relevant in the context of rising levels of financial stress for many poor countries due to concurrent climate, economic and health shocks.

Further, finding ways to reduce sovereign debt can have a positive impact on food security given the correlation between sovereign debt and the prevalence of chronic undernourishment (Landers, 2022).
Currently, debt swaps are under consideration by several countries in the context of the current debt crisis. Discussions have been announced for the Bahamas, Gabon (USD 500 million), Sri Lanka (USD 1 billion) and Zambia (USD 13 billion). The Bank of America has arranged the USD 500 million deal for Gabon in August 2023. Citi, Deutsche Bank, HSBC, and Standard Chartered have also expressed interest in this emerging market (White, July 2023; White, May 2023; White and Sguazzin, August 2023). Similarly, the African Development Bank and European Investment Bank are exploring debt-for-nature swap transactions (White & Sguazzin, 2023; Jones 2023).

Recent progress in international fora on the sustainable use of marine resources add to the growing momentum on the blue economy and the relevance of debt-for-nature swaps as a key funding mechanism. For instance, the “30×30” goal, agreed in December 2022 at the UN Biodiversity Conference of the Parties (COP15) to the UN Convention on Biological Diversity, provided a reference frame for the conservation objectives defined in the Ecuador deal.

Similarly, further global impetus for nature conservation and the sustainable use of natural resources, including in marine environments, has been provided by the adoption of the Draft agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (High Seas Treaty) in March 2023 (UN, June 2023) and the mandate for a zero draft of an international legally binding instrument on plastic pollution, including in the marine environment following the second session of the Intergovernmental Negotiating Committee in June 2023 (UNEP, 2023).

Finally, in July 2023, the G20 Environment and Climate Ministers agreed to the Chennai High Level Principles for a Sustainable and Resilient Blue/Ocean-Based Economy, which include commitments on ecosystem protection, restoration, and sustainable use of resources, alongside a call for “accelerated, adequate and additional mobilization of climate finance from multilateral development banks, international financing institutions, private sector, and other sources.”
Challenges for debt-for-nature swaps in the blue economy

Nature and climate finance are still in their infancy. Stakeholders have worked tirelessly over the past 50 years to prepare the fundamentals for industries and the financial services sector to not only measure and account for climate and nature risks, but also channel capital towards reducing them. In 2022 and 2023, the sustainable finance agenda suffered serious reputational damage due to greenwashing, in addition to poorly conceived and managed investments, credits, and offsets. Sustainable finance should not suffer further setbacks from poorly administered debt-for-nature swaps.

Because they are still in their infancy on financial markets, and because they involve diverse stakeholders, debt swaps are time-consuming and complex to both design and deliver. As a case in point, it took Ecuador over three years to negotiate its swap (Carbon Pulse, 2023), while the Seychelles required over four years to finalize its own (Banque de France, 2023).

Transaction costs are another issue. There is very little information on the costs of negotiating and completing a debt-for-nature swap, but such costs are hardly negligible. Negotiating these transactions is complex and time consuming, requires highly specialised expertise and implies financial engineering in line with global banking and financial market standards. It is safe to assume that the higher the value of the swap, the higher its complexity and, as a result, its transaction costs.

The implementation of a swap can also be affected by global and local economic trends. Should fiscal instability prevail, and inflation continue to rise in debtor countries, local currencies would be expected to further depreciate. For example, the proceeds from the debt swap by Zambia in 1989 was spent within one year due to the rapid devaluation of the Zambian Kwacha (Resor, 1997).
Some also question the financial and development additionality of swaps. Financial additionality pertains to whether an indebted country would have secured funds for conservation and sustainable use of resources had the swap not taken place. Development additionality, on the other hand, questions whether the development impacts triggered by the swap are over and above what would have taken place anyway (e.g., whether improvements to food security and rural incomes would have happened at the same speed and to the same extent if the swap had not materialised).

These questions are difficult to answer as there is very little information available publicly to assess whether previous debt-for-nature swaps have resulted in any financial and development additionality (Cassimon, 2011). Record-keeping on these transactions has been poor and performance data may have been neglected given that many of these swaps were between sovereign governments. Meanwhile, the latest swaps, namely for Ecuador, Belize, and the Seychelles, involve the participation of private creditors and investors, all of which are likely to be closely monitoring the use of blue bond proceeds. It is therefore likely that due diligence on the administration and implementation of the proceeds will now benefit from a new level of transparency and accountability.

Terms and penalties for breaching a swap deal are agreed between the parties involved in the transaction and aim to ensure the enforcement of the deal. Generally, the agreement will outline commitments and obligations for both debtor and creditor sides. Breaching these commitments may result in the creditor country taking legal action against the debtor country to seek compensation or enforce the terms of the original agreement.

For example, failure by Belize to meet its commitments to the Conservation Fund by the stipulated date would require it to increase its annual conservation payment by USD 1.25 million for the first missed milestone and by an extra USD 250,000 for each subsequent missed milestone. In addition, due to a cross-default provision with the blue loan, Belize will be considered at default under both agreements if it defaults on either the Conservation Funding or the blue loan. Reputational damage is another consequence for breaching a debt-for-nature swap agreement; it would harm the debtor country’s reputation and may affect its ability to attract future investments or secure favourable terms with other creditors.

Additional challenges exist regarding the debtor country’s capacity for governance and administration of a swap. The first concerns the need for expertise, in the indebted country, for working effectively with creditors, credit enhancement providers, donors, environmental experts, financial intermediaries, insurers, international banks, consultants and NGOs, and exploring the conditions of a potential swap. It is true that most of the work is done by international consultants and that, given the level complexity and financial engineering involved, international actors may be better placed to undertake the due diligence. Questions therefore arise as to whether the indebted country has sufficient understanding and ‘skin in the game’ to carefully administer the proceeds of the swap.
Another challenge is that many countries may simply not have the institutional capacity to manage the trust funds and special purpose vehicles that are established to manage and disburse the proceeds of the swap. Further challenges may arise as many developing countries lack in-country expertise to work in collaboration with international NGOs, local governments, businesses, indigenous and local communities on the conservation and sustainable use activities committed under the swap. This can be particularly true in the case of marine and coastal conservation which, as discussed above, remain underfunded and poorly understood.

These governance challenges are increasingly important as global expectations on the future of debt-for-nature swaps heightens. Swaps are entering a new era with private creditors not only agreeing to haircuts on the original debt repurchase or restructuring but also investing in the subsequent bond issuances linked to the swaps. Private investors may agree to endure losses because the proceeds are targeting a noble goal – funding conservation and sustainable use. However, if the conservation and sustainable use goals are not reached in time or if the funds prove to be mismanaged, these same private investors may well lose confidence. This would have serious repercussions on climate and nature finance as a whole.

Mainstreaming debt-for nature swaps

There are several ideas that merit further exploration to increase opportunities while minimizing challenges related to debt-for-nature swaps – both within and outside the blue economy.

1. A global framework for debt-for-nature swaps

The transaction costs of debt-for-nature swaps are high given the complexity and pluri-disciplinary expertise required for their conception, design, approval, and execution. Required expertise ranges from sovereign debt restructuring and financial engineering to the design and administration of trusts and special purpose vehicles, the implementation of sustainable use activities such as aquaculture or artisanal fisheries, and their integration with marine and coastal conservation. In the context of blue swaps as discussed in this commentary, additional expertise on blue carbon credits would also be extremely valuable. Besides, terms and conditions for each swap are bespoke to each country’s natural capital and debt obligations.

While any individual swap will need to be engineered to match the country and creditor context, a global framework that outlines and guides the preparation of a debt-for-nature swap can be extremely useful. First, it could help indebted countries to better appreciate the context and conditions under which a swap could take place. Second, it could reduce uncertainty, streamline processes, help collaboration between parties, and hence lower transaction costs. Finally, such a framework could provide guidelines on who should administer the proceeds of the swap and how the environmental, social, and economic benefits of the swap should be measured and reported.
The unit of ecological gain per dollar of debt relief would be an essential metric to be used in this global framework. It would allow for forecasting and monitoring, both of which are necessary to develop a global market on debt-for-nature swaps. Such intelligence would also increase predictability and comparability across transactions, in addition to providing a benchmark for monitoring the use of proceeds. Moreover, it would help future swaps continue to attract higher credit ratings which shall, in turn, bring numerous other investors to the ‘debt-for-development’ table.

The G20 Sustainable Finance Working Group (SFWG), along with the International Capital Markets Association (ICMA) and the Global Environment Facility (GEF), are best placed to take on the challenge of developing this global framework for debt-for-nature swaps. The G20 SFWG is already working on the G20 Common Framework for Debt Treatments, which was agreed in November 2022. ICMA, on the other hand, has produced the Green Bond Principles, Social Bond Principles, Sustainability Bond Guidelines, Sustainability-Linked Bond Principles, and a range of other sustainable finance handbooks and guidance.

As for the GEF, it has valuable expertise and experience from over three decades of providing funding for the sustainable use of natural capital and the blue economy. The GEF network, including implementing agencies, also has deep knowledge of the sustainable use of marine and coastal environments in developing countries. Together, these three organisations are likely to have the right mix of mandate and know-how to develop, in a transparent and participatory manner, a new framework for debt-for-nature swaps – on land as well as in coastal environments.

2. Further innovation in the financial engineering of swaps

Drawing parallels with the debt-for-wind power swap between Spain and Uruguay in 2005, under which certified carbon credits were offered to creditors during the negotiation of the swap (Cas-simon et al., 2011), debtor countries may have the opportunity to offer creditors significant biodiversity and carbon credits derived directly from the landscape or seascape targeted by the swap.

To provide for this, however, more stringent standards for such credits might be required. Since a global carbon market remains far from reality, greater harmonisation between leading independent biodiversity and carbon credit standards and brokers will be extremely useful. These include, among others, the America Carbon Registry, Architecture for REDD+ Transactions, Climate Action Reserve, Global Carbon Council, Gold Standard, Plan Vivo, Verra, etc.

Further innovation is also to be expected in the issuance of green and blue bonds as part of a debt repurchase or restructuring. This was the case, for example, in the blue swaps for the Seychelles and Belize, both of which featured proceeds targeted at domestic sustainable aquaculture and artisanal fisheries.

3. Bringing non-Paris Club creditors to the table

Debt swaps have historically been organised between Paris Club sovereign creditors and indebted countries. Nowadays, sovereign credit extends beyond Paris Club members to include emerging countries such as China, India, Brazil and South Korea, as well as international financial institutions, banks, private bond holders, etc. If more indebted countries are to benefit from debt-for-nature swaps, these creditors must also be engaged in debt swap negotiations.
First steps in this direction began in April 2023, when the IMF, G20 and World Bank convened the first Global Sovereign Debt Roundtable, which brought together the Paris Club, China, and private creditors. Debtors and creditors will be keenly awaiting and watching for developments in the months and years ahead. While this forum will focus on sovereign debt sustainability and case-by-case conditions for debt restructuring, it could also provide a platform for dialogue and debate on debt-for-nature and debt-for-climate swaps.

4. Expanded use of proceeds from debt-for-nature swaps

Evidence and practice on the case for expanding debt-for-nature swaps beyond conservation are increasing. Debt-for-climate swaps are perhaps the most explored, aiming to help low- and middle- income countries raise funding for their transition towards a low-carbon economy (IEA, 2021; Weder di Mauro, 2021; Volz et al., 2020). The IMF working paper Debt-for-Climate Swaps: Analysis, Design, and Implementation further explores the emerging case for debt swaps as a source of climate finance (Chamon et al, 2022).

Innovation in expanding the use of proceeds from debt swaps is already underway. For example, the authors of this commentary worked with the government of Sri Lanka on a debt-for-nature swap including proceeds that would target sustainable agriculture projects. In 2021, during the COVID-19 pandemic, the World Food Programme (WFP) reported on food security and nutrition projects implemented using proceeds from debt forgiveness. The cases cited included Germany-Egypt, Italy-Egypt, and Russia-Mozambique (WFP, 2021). While these arrangements did not involve a restructuring of sovereign debt, they provide insights into the international development community’s growing appetite for innovation regarding the use of debt relief for funding in more than nature conservation – including food security and sustainable agriculture.
Conclusion

Debt-for-climate and debt-for-nature deals are most viable where there is significant ‘natural capital’ and/or large biodiversity-rich ecosystems and conservation and sustainable use activities can deliver substantial benefits for society while helping countries achieve the sustainable development goals.

When sovereign debt is trading at a deep discount, the opportunity arises to restructure and reallocate funds in support of sustainable development. This, in principle, is a very good idea. Blue swaps, in which the proceeds of the restructured debt target the sustainable use of marine ecosystems – which have so far been largely underfunded – is particularly valuable.

The reality, however, is that many developing countries may not have institutions that can administer the proceeds of swaps or organisations which have the necessary pluri-disciplinary expertise to implement sustainable use activities that would be targeted by a swap. Building institutions takes time and generating the expertise on the sustainable use of marine resources takes even longer. If indebted countries are not capable of meeting the commitments made under swap agreements, capital market participants will quickly lose confidence and investments in debt swaps can be expected to rapidly decrease thereafter.
While blue swaps could offer crucial funding for the blue economy of indebted countries, they will not fully solve their chronic debt problems nor shield them from global shocks. In this context, addressing creditor coordination, geopolitical dynamics, and transparency gaps to enhance the G20 Common Framework for Debt Treatment is vital. Moreover, as private creditors are increasingly becoming involved in swaps, beneficiary nations should strive to enhance transparency and accountability.

The case studies for Ecuador, Belize and the Seychelles demonstrate that the innovative use of debt swap proceeds for the blue economy, in combination with financial mechanisms such as blue bonds and political risk insurance, can support underfunded sustainable development goals in highly indebted but nature-rich countries. The parametric insurance and political risk insurance instruments have proven especially critical in mitigating risks associated with natural disasters and political uncertainties, thus allowing for more favourable borrowing terms, lower interest rates, and increased investor confidence.

These three case studies also highlight the importance of tying debt swaps to specific sustainability commitments. Such commitments provide assurance that the funds generated through debt conversion will be used for marine conservation, sustainable fisheries and other blue economy activities that align with global environmental goals.

Also critical to the success of debt swaps is the collaboration between various stakeholders ranging from governments and international financial institutions to NGOs, private banks and law firms. Engaging diverse parties with expertise in finance and environmental sustainability helps ensure effective implementation. The involvement of reputable organizations such as The Nature Conservancy and Pew Bertarelli Ocean Legacy, for example, gives credibility to these deals and gives lenders as well as investors confidence that such deals can deliver environmental and social benefits.

Investment by debtor governments in capacity-building will help to enhance their ability to negotiate and structure debt-for-nature swaps for the blue economy. Developing in-house expertise and understanding the intricacies of financial and environmental considerations in debt swaps would be particularly valuable, both to reinforce credibility and to lower costs.

Finally, leadership and collaboration between the G20 Sustainable Finance Working Group, International Capital Markets Association and Global Environment Facility, is sought to establish a global framework for debt-for-nature swaps that promotes innovative strategies for using swaps to tackle pressing development concerns such as food security, sustainable agriculture, and climate adaptation.
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