

**Drowning in Debt: Understanding Debt-for-Climate Swaps
Through a Case Study of the Belize Blue Bond**

Sheil Desai

*Submitted to the Philosophy, Politics and Economics Program at the University of Pennsylvania
in partial fulfillment of the requirements for Honors.*

Thesis Advisor(s): Dr. Daniel Garrett

Date of Submission: April 12, 2023

ACKNOWLEDGMENTS

I cannot start this thesis without first acknowledging the people that made it possible. Thank you to Dr. Daniel Garrett for taking the time to serve as a mentor and guiding me through this research project. This thesis was possible because your feedback challenged my assumptions and encouraged me to think more critically. I appreciate all your support throughout this semester and being so generous with your time and patience. I want to thank my friends at Penn for being so understanding as I spent long nights working on this thesis. Your encouragement meant the world. Lastly, I want to thank my mom and dad without whom my education would not be possible. Thank you for recognizing how important this thesis is to me and encouraging me to see it to completion.

ABSTRACT

Debt-for-climate swaps are an increasingly popular policy to help developing countries achieve debt sustainability and invest in climate action. However, there is a lack of research that critically evaluates the limitations of debt-for-climate swaps. In this paper, I seek to understand the challenges and successes of debt-for-climate swap through an analysis of the 2021 Belize Blue Bond, a case study representing the most ambitious and innovative debt-for-climate swap to date. I begin with an overview of the global eco-bond market and the history and structure of debt-for-climate swaps. I then retrace the economic history of Belize to contextualize the events leading up to the 2021 debt-for-climate swap and its aftermath. Next, I delve into the details of the Belize Blue Bond agreement and attempt to analyze its successes and shortcomings. Through an economic analysis and an ethics-based discussion, I will argue that the Belize Blue Bond cannot guarantee long-term debt sustainability and warrants allegations of greenwashing. Next, I will condense the lessons learned from the Belize Blue Bond and argue that debt-for-climate swaps are only effective under a narrow set of conditions. Instead, I will make the case for de-linking debt restructuring and climate finance as a more efficient alternative to debt-for-climate swaps.

TABLE OF CONTENTS

Acknowledgments	1
Abstract	3
Introduction	4
The Eco-Bond Market	6
Debt-For-Nature Swaps	9
Economic History of Belize Prior to the BBB	16
The Belize Blue Bond Proposal	25
Successes and Failures of the Belize Blue Bond	32
Impact on Long Term Debt Sustainability	32
Other Metrics for Economic Analysis	36
Allegations of Greenwashing	38
The Insurance Policy	41
Transparency	43
Lessons Learned From the Belize Blue Bond	48
The Future of Debt-for-Climate Swaps	52
Alternative Policies to Debt-For-Climate Swaps	56
Conclusion	60
Bibliography	62

INTRODUCTION

On November 5, 2021, Belizean Prime Minister John Briceño signed an agreement with a non-profit environmental group, The Nature Conservancy (TNC), that would lower the small Central American country's staggering external debt. In exchange, Belize promised to conserve the Belize Barrier Reef, the second largest coral reef system in the world, which runs along the country's coastline and extends into the Caribbean Sea. The agreement was named the Belize Blue Bond (BBB) and received instant praise from multilateral financial institutions and media outlets. A Reuters headline cleverly remarked that "Belize Offers Ocean 'Blue' Print With Debt-For-Reef Swap".¹ Jamie Guajardo, the International Monetary Fund's mission chief for Belize, claimed "the deal is of tremendous benefit to the country and contributes to the authorities' objectives of restoring debt sustainability, promoting sustainable development, and enhancing resilience to natural disasters and climate change".² With one signature, Belize and TNC seemingly addressed climate change and wealth inequality, two of the most pressing issues facing developing countries in the 21st Century. Both investors and other small developing nations with large external debts are watching Belize closely to see if the BBB model can be replicated elsewhere and scaled up.

The BBB is an example of a debt-for-climate swap, an increasingly popular policy being used to promote conservation and climate change mitigation in debt-saddled countries. This thesis will evaluate the policy of debt-for-climate swaps through an analysis of the BBB, the largest swap of its kind to date. The analysis will begin with a thorough review of the international eco-bond market, previous debt-for-climate swaps, and the fiscal and monetary

¹Jones, "Analysis."

²Owen, "Belize."

history of Belize to provide the context from which the BBB was born. Then, I will explore the details of the swap including how Belize's debt is to be restructured, marine conservation provisions, and the penalties for non-compliance. In the third section, I will analyze and discuss the successes and failures of the BBB in regards to its two goals of creating debt sustainability and protecting Belize's oceans. My focus in this section will be to address the question of whether Belize is truly better off under the conditions of the BBB as opposed to previous debt agreements. In the final sections, I will condense the lessons learned from the BBB and use them to understand the implications for future debt-for-climate swaps. Lastly, I will discuss alternative policies to debt-for-climate swaps and share the conditions in which they are most effective.

The Eco-Bond Market

Eco-bonds are defined as credit instruments designed to support and promote achievement of environmental or social projects or goals.³ There are many variations of eco-bonds, but the main forms discussed in this paper are green bonds and sustainability linked bonds (SLBs). Similar to vanilla bonds, either corporations or countries can issue eco-bonds to raise funds for projects or investments. The caveat with eco-bonds is that the project must promote sustainability or the issuer must pledge to achieve sustainability goals in exchange for the credit. Before going any further, it is important to identify the key differences between eco-bond variations.

Green bonds are financial instruments used to raise capital for green projects and provide investors with regular income payments in return.⁴ The projects are often predefined and the use of funds is specifically relegated for the projects. The different categories that comprise green

³ Investopedia, "Green Bond: Types, How to Buy, and FAQs."

⁴ World Bank, "Climate Explainer: Green Bonds."

projects can include renewable energy, clean transportation, wastewater management, and climate adaptation among others. Issuers must comply with the predetermined use of the proceeds or they can risk legal action from investors for breach of contract or misrepresentation. There is also potential for regulatory fines based on the jurisdiction where the bond was issued. Green bonds are by far the most common form of eco-bond by issuance volume.⁵ The BBB is an example of a blue bond. Blue bonds are a relatively newer subset of green bonds that require funds to be allocated for marine conservation and offshore energy development.

Sustainability-linked bonds are similar to green bonds in their association with environmental conservation and sustainable development, but differ on the use of capital. Unlike green bonds, a firm or country that issues a SLB is not bound to use raised funds for predefined green investments. Instead, SLBs are linked to the achievement of specific sustainability targets. If key performance indicator targets are not met by a predetermined date, then there are associated penalties for the bond's interest payments. For example, a firm may issue a SLB and in return agree to lower greenhouse gas emissions produced from its facilities by a specific value. The firm may use the funds from the bond for any expense it requires. However, if the firm is unable to meet this target by the predetermined date, one form of a penalty can be an increase in the rate repaid to bondholders. SLBs are a relatively newer credit instrument, originating in 2018, but over U.S. \$160 billion have been issued by 2021 and expected to keep growing because of the flexibility they offer.⁶

⁵ Flammer, "Corporate Green Bonds."

⁶ OECD (2022), "Green, social, sustainability and sustainability-linked bonds in developing countries: How can donors support public sector issuances?"

By the end of 2021, the eco-bond market was valued at U.S. \$2.7 trillion.⁷ Since 2014, the market has grown at an incredible average pace of 80% per year.⁸ Despite the tremendous growth, eco-bonds constitute a relatively small part of the global bond market. As of 2022, eco-bonds represent 1% of total assets outstanding and 2% of new bond issuances.⁹ Eco-bonds are still a niche market within the global bond market, a fact that may be attributable to its nascency. The first green bond was issued in 2007 after a group of Swedish pension funds expressed interest in investing in climate related projects. The World Bank responded and became the first institution to issue a green bond for use in its climate focused development projects. At first green bonds were mostly used by multilateral institutions like the World Bank and individual countries, but corporations began to issue green bonds after 2013.¹⁰

Generally, eco-bonds offer lower yields compared to vanilla bonds, but the demand for eco-bonds continues to grow.¹¹ This phenomenon has been referred to as the “Greemium”, or the additional value that green bonds and SLBs seem to offer despite less monetary returns on investments. Existing literature is fairly divided over the existence of a greemium and its potential causes. The fundamental disagreement is whether investors are willing to trade off wealth for perceived societal benefits. For example, Flammer (2021) identifies no greemium but explains the purchase of green bonds by the desire to signal a public commitment to environmental issues.¹² On the other hand, Fatica, Panzica, and Rancan (2021) find a green bond premium, especially for bonds issued by frequent green bond issuers and externally assured

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ World Bank, “Climate Explainer: Green Bonds.”

¹¹ OECD (2022), “Green, social, sustainability and sustainability-linked bonds in developing countries: How can donors support public sector issuances?”

¹² Flammer, “Corporate Green Bonds.”

green bonds.¹³ One potential reason for the absence of a green bond premium could be investors' lack of trust in the positive environmental impact promised by green bond issuers. Unlike SLBs, green bonds lack specific metrics from which investors can easily hold issuers accountable and access legal recourse. Due to a lack of a universal set of standards to classify a bond as "green," private agencies like the Climate Bonds Initiative (CBI) have been formed to provide third-party certification that green bonds are being used as marketed for green purposes.

This understanding of eco-bonds is essential because it highlights the young and growing nature of the market. Some of the larger issues in the market like the credibility of green bonds, motivations for green investors, and lack of regulations will reappear in the analysis of the BBB in later sections of this paper. The next subsection will provide a primer on climate-for-debt swaps to provide background for the BBB.

Debt-For-Nature Swaps

Debt-for-nature swaps are agreements in which debt is reduced in exchange for spending or policy commitments towards areas like nature conservation and climate change by a debtor country.¹⁴ Debt-for-climate swaps are specific types of debt-for-nature agreements with a focus on climate adaptation, mitigation, and resilience. The concept for debt-for-nature swaps was born at a time of crisis in Latin America. Countries in Latin America were facing crushing debt in the 1980s while simultaneously environmental degradation was on the rise.¹⁵ Thomas Lovejoy, an ecologist working on behalf of the World Wildlife Fund, introduced the idea in a 1984 *New York Times* editorial:

¹³ Fatica, Panzica, and Rancan, "The Pricing of Green Bonds."

¹⁴ Zettelmeyer, "Debt-for-Climate Swaps."

¹⁵ Visser and Mendoza, "Debt-for-Nature Swaps in Latin America."

The international debt crisis should remind us of the ecological as well as the economic links between rich and poor... Debtor nations willing to protect natural resources could be made eligible for discounts or credits against their debts... Simulating conservation while ameliorating debt would encourage progress on both fronts.¹⁶

The world's first debt-for-nature swap soon followed Lovejoy's call for action. In 1987, Bolivia reached an agreement to have U.S. \$650,000 canceled from its debt in exchange for pledging U.S. \$100,000 towards the conservation of a major biosphere reserve in the country.¹⁷ Following the example of Bolivia, over a dozen other Latin American countries participated in similar swaps over the next decade, the most prominent and successful of which included Costa Rica and Ecuador. Over the next two decades, debt-for-nature swaps became a standard practice for developing countries attempting to manage their debt.¹⁸ Debt-for-nature swaps inspired similar debt-for-development swaps to fund projects related to education, healthcare, and child development, many of which were implemented outside of Latin America in Eastern Europe and Africa.¹⁹

Debt-for-climate swaps were inspired by debt-for-equity swaps, a common policy used in the 1980s to rescue banks holding developing countries' debt and the countries unable to pay the debt. U.S. and European banks could sell their debt for as low as 5 percent of face value to foreign investors on a secondary market.²⁰ In exchange, the debtor country agreed to pay the foreign investor with a stake in a national industry equivalent to the debt's face value or in local currency. Seemingly, all three stakeholders benefited from this swap. Banks could escape their

¹⁶ Ibid.

¹⁷ Thapa, "Debt-for-Nature Swaps."

¹⁸ OECD, "Lessons Learnt from Experience with Debt-for-Environment Swaps in Economies in Transition."

¹⁹ Ibid.

²⁰ Standing, "Debt-for-Nature Swaps and the Oceans."

bad investments with some cash, investors could cheaply acquire business interests in foreign countries, and debtor countries could transfer their debt to local currency to be spent in the country. One major criticism surrounding these swaps was that they accelerated the privatization of national industries by foreign investors at extremely cheap prices.²¹

Conservation NGOs realized that the debt-for-equity model could be applied to conservation. U.S. NGOs could make cash purchases of discounted commercial debt from banks and debtor countries returned the favor by committing to conservation projects. By the mid-1990s, these debt-for-nature swaps slowed down because the U.S. Brady Plan allowed developing countries to restructure their bank held debt into one U.S. backed bond. This reduced the discounts in secondary debt markets that allowed conservation NGOs to repurchase the debt for swaps.²²

It is worth noting that historically, NGOs made direct cash payments to purchase debt from banks. This cash came from the NGOs themselves, raised from donations and grants. The BBB is a unique form of debt-for-nature swap in which the NGO does not use any of its own money, but rather facilitates a transaction between a hedge fund or investment bank and the debtor country. This money must be paid back with interest because the hedge fund or investment bank needs to see a return on their investment. Since the swaps are not limited by the budgets of NGOs, the scale of the swaps has increased with the financialization of the nature-for-debt swap market. The value of the NGO as an intermediary is that they provide assurance to investors concerned about the use of proceeds for green purposes. Additionally, they bring technical knowledge in designing conservation provisions. The first debt swaps organized

²¹ Ibid.

²² Ibid.

in this style were done by TNC in The Seychelles in 2018 and Belize in 2021. Prior to these two swaps, 47 nature-for-debt swaps had been completed.²³ NGOs had spent U.S. \$42.5 million to buy developing country debt at a value of U.S. \$326 million.²⁴ The Belize Blue Bond alone refinanced U.S. \$533 million.²⁵ However, there are various ethical concerns that accompany the financialization of debt-for-climate swaps. These will be discussed in further detail later in this paper.

Debt-for-climate swaps can include bilateral debt as well as commercial debt. Since the structure of debt-for-nature swaps can vary, it is important to understand the different forms to assess the BBB. Debt swaps usually take the form of either a bilateral or a third-party swap, also known as tripartite swaps. We will begin with a discussion of bilateral swaps. Bilateral debt is when debt is owed from a debtor government to a creditor government, essentially a loan between nations. The swap occurs when the creditor government cancels debt for the debtor country, setting aside funds in local currency for an agreed upon purpose.²⁶ The first example of this kind of swap occurred in 1989 between the Netherlands and Costa Rica. The Dutch government canceled 70% of the debt owed by Costa Rica (U.S. \$23 million) and in return required that the Costa Rican government establish a joint Dutch-Costa Rican nature trust fund with spending decisions in the hands of Costa Rican officials and the Dutch ambassador to Costa Rica.²⁷

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

²⁶ OECD, “Lessons Learnt from Experience with Debt-for-Environment Swaps in Economies in Transition.”

²⁷ Post, “The Debt-for-Nature Swap: A Long-Term Investment for the Economic Stability of Less Developed Countries.”

The other form of debt-for-nature swaps is third-party swaps. In a simplified overview of tripartite debt-for-nature swaps, an international nongovernmental organization (NGO) facilitates a buyback of privately owned debt using the financial support of donors and new lenders. The lenders raise the initial funding for the NGO which lends the funds to the debtor country at below market interest rates contingent on two main conditions. First, the country must use the funds to buy back commercial debt at a reduced value.²⁸ The difference between the reduced value of the new debt owed to the NGO and the original commercial debt represents the debt relief the debtor country experiences as a result of the swap. In the second condition, a portion of the debt relief must be used to fund nature conservation or climate related projects.²⁹ The debtor country must then pay the loan back to the NGO with interest which is used to repay the original investors. The Bolivian swap and BBB are examples of tripartite swaps, which are common throughout Latin America, Asia, and Africa.³⁰

In the specific case of the BBB, the TNC provided a loan to Belize through a Special Purpose Vehicle (SPV), a legal entity that disburses funds for agreed-on projects and loans money to the debtor country to buy back its debt from commercial creditors. Credit Suisse issues blue bonds and raises the initial funds to give to the SPV. Belize uses a portion of the loan from the SPV to buy back its debt at a discounted rate from its creditors. Belize also pledges to use other portions for the loan and some of the savings for conservation projects. Belize must pay the loan back with interest to the SPV which is passed on to Credit Suisse which then retains a portion before repaying its bondholders.

²⁸ Zettelmeyer, “Debt-for-Climate Swaps.”

²⁹ Ibid.

³⁰ Ibid.

In tripartite swaps, public debt held by foreign investors is usually targeted. The creditors are usually a mix of hedge funds and private investors. In contrast to bilateral swaps, tripartite swaps introduce NGOs and banks into the picture. As will be discussed in the analysis of the BBB, a third party means another set of interests must be addressed in addition to the debtor country and creditors. Historically, the three major NGOs that have led swaps include Conservation International (CI), The Nature Conservancy (TNC), and World Wildlife Fund (WWF).³¹ In the brief history of debt-for-nature swaps, it is also worth noting that the scale of which these swaps have occurred is relatively small in the context of the total debt owed by debtor countries.³² Tripartite swaps usually rely on relatively small amounts and one-off financial transfers to establish a nature based trust fund. As of 2017, the United Nations estimated that the principal value of the total debt has been reduced by debt swaps by U.S. \$2.6 billion.³³ About U.S. \$1.2 billion was used to fund nature or climate related projects as a result of these swaps.³⁴ In contrast, climate grants have provided over \$17 billion in funding to date.³⁵ The BBB is unique in comparison to preceding debt-for-nature swaps in that it applies to a significant portion of Belize's debt. The following section will introduce the economic and fiscal history of Belize so that the BBB can further be contextualized.

³¹ Ibid.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

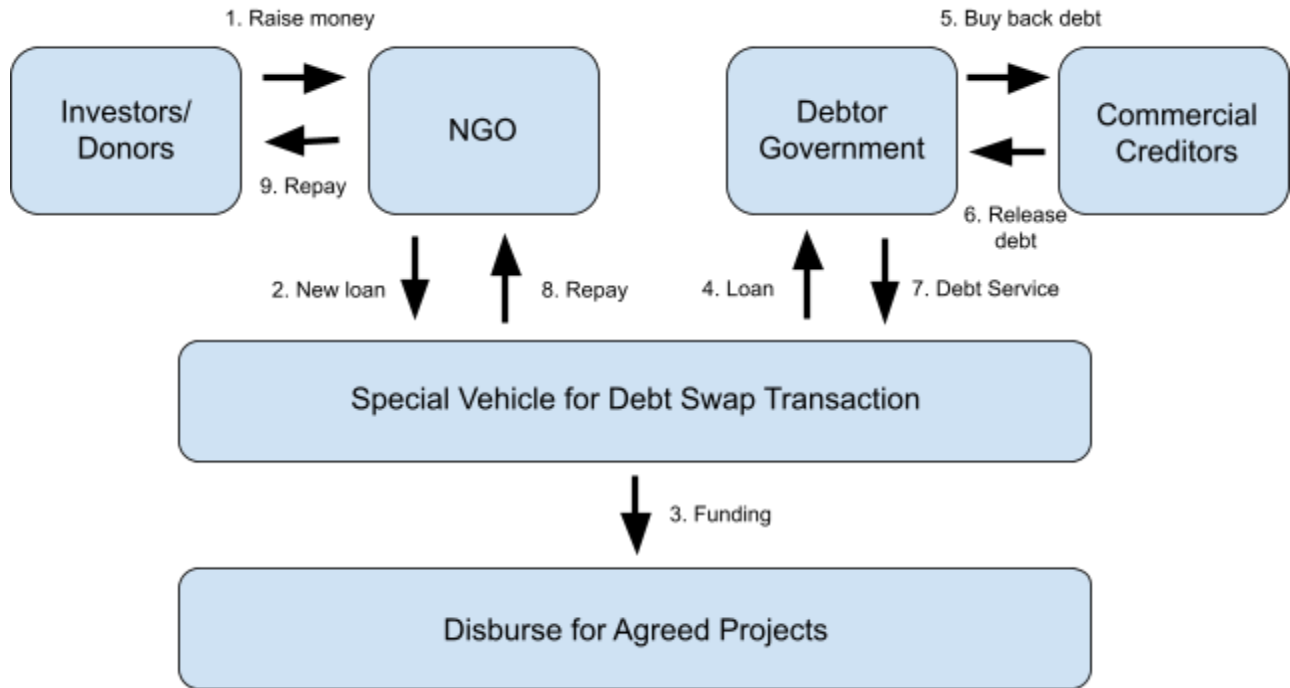


Figure 1: Structure of a tripartite debt swap. Investors and donors raise money for a NGO to issue a loan to a special vehicle (SV) established for the swap. The SV works to disburse funding for agreed projects. The SV issues a loan with remaining funds to the debtor government for buy back of debt. Debtor government repays SV which repays NGO and investors.³⁶

³⁶ Zettelmeyer, “Debt-for-Climate Swaps.”

ECONOMIC HISTORY OF BELIZE PRIOR TO THE BBB

Like much of the Caribbean, Belize was a contested possession during from the 16th to 18th centuries.³⁷ Several clashes occurred between Spain and England as they vied for access to Belize's prized forested land known for its high quality mahogany wood.³⁸ In the process of colonization, many indigenous Mayan communities were forcibly removed and displaced from their territories.³⁹ Eventually, England emerged victorious and Belize, then known as British Honduras, was annexed into the British empire as an official Crown Colony in 1783. Belizean mahogany continued to be shipped to Europe and later in the United States for the production of furniture and shipbuilding. African slaves arrived in Belize on British ships to work in the timber industry until slavery was abolished in 1833.

Belize's timber industry began to decline in the 1950s but its economy continued to rely on other agricultural exports like sugar, shrimp, and fruit.⁴⁰ As of 2021, agriculture is responsible for 11% of the country's GDP.⁴¹ The presence of the Belize Barrier Reef, the second largest in the world, white sand beaches, Mayan ruins, and extensive rainforests teeming with biodiversity have turned Belize into a tourist destination for American and European travelers. In 2021, tourism contributed U.S. \$350 million to the Belizean economy, accounting for about 14% of its annual GDP.⁴² A sizable portion of Belize's economy is directly dependent on tourism and global commodity prices. This means that Belize is extremely vulnerable to shocks in the global

³⁷ Macpherson, "The Economic History of Belize: From the 17th Century to Post-Independence."

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁴¹ O'Neill, "Belize - Share of Economic Sectors in Gross Domestic Product 2021."

⁴² Ibid.

economy like recessions, commodity prices, exchange rate fluctuations, and pandemics like COVID-19.

Belize was finally granted formal independence from Great Britain in 1981. As an independent state, Belize was permitted to join international organizations like the United Nations (UN), International Monetary Fund (IMF), and The World Bank among others. This opened up new opportunities for credit that were previously inaccessible to Belize's government. Belize quickly learned that independence did not mean complete freedom to enact its own economic policies. In the 1980s, Latin America was in the midst of a debt crisis.⁴³ Deficits ballooned and the risk of defaults was looming across the Americas. In response, the Belizean government sought a loan from the IMF but it came with strings attached. Article IV of the IMF Articles of Agreement mandates that member countries, usually in the context of requesting a loan, are required to consult with IMF delegates on an annual basis.⁴⁴ These consultations are one way that Belize has had to contend with external pressures over its economic policy.

Outside of multilateral organizations, foreign governments have also applied pressure on Belize.⁴⁵ A notable example includes the U.S. using its unilateral drug certification policy as a way to strongarm Belize into signing bilateral treaties unrelated to narcotics trafficking.⁴⁶ Under this drug certification policy, the U.S. government annually publishes a list of countries where illicit drug production or trafficking occurs. The countries on the list must be certified by the U.S. government by a certain time that the country is cooperating with the U.S. on addressing narcotics otherwise foreign aid is suspended or sanctions can be imposed.⁴⁷ In this manner, the

⁴³ Visser and Mendoza, "Debt-for-Nature Swaps in Latin America."

⁴⁴ "Articles of Agreement of the International Monetary Fund."

⁴⁵ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁴⁶ Ibid.

⁴⁷ Spencer, "Drug Certification."

U.S. has been able to coerce Belize, a much smaller and economically dependent country, into entering favorable trade agreements for the United States or risk sanctions that would cripple the export based Belizean economy.⁴⁸

Historically, even when the U.S. has imposed sanctions on particular entities in Belize for alleged connections to narcotics trafficking, the economic impact has been devastating in Belize. For example, in 2016 the U.S. government sanctioned a Belizean banana farm connected to Mexican drug cartels. Though just one major farm was directly sanctioned, the downstream effects in a country as small as Belize can be extreme. Hundreds of jobs were lost and yearly banana exports dropped off by over 40 percent following the sanctions.⁴⁹ The allegations of drug trafficking were never verified. Examples like this one demonstrate the Belizean economy's vulnerability to powerful foreign governments. The negative effect of foreign governments on Belize's economy can also impact Belize's ability to raise revenue, ultimately affecting its ability to service its debt and fund public services.

With the ability to access credit, also came the need for it. Belize's public revenue is mostly reliant on taxes on goods and service followed by income and profit taxes.⁵⁰ As of 2020, these raise about 60% and 24% of total public revenue respectively.⁵¹ Since Belize gained independence, public revenue as a share of GDP has not increased significantly despite the growth of GDP.⁵² The World Bank estimates that Belize has experienced an annual average GDP growth rate of 4% since 1981, but public revenue has hovered between 16 to 20 percent.⁵³ Yet,

⁴⁸ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁴⁹ Torbati, "How U.S. Sanctions Targeted a Belize Banana Farmer, and Hurt an Economy."

⁵⁰ Ibid.

⁵¹ "Details of Tax Revenue - Belize."

⁵² Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁵³ "Details of Tax Revenue - Belize."

public expenditure has been consistently increasing as expected in democracies, especially around elections.⁵⁴ The result is longstanding deficits that have become commonplace in Belize.

At the time of independence in 1981, Belize's new government inherited a deficit.⁵⁵ The global recession at the beginning of the 1980s certainly played a role.⁵⁶ However, deficits continued throughout the 1990s and peaked between 2001 and 2006 as account balance as percent of GDP reached as far as -16.4%.⁵⁷ In just the short period between 2000 and 2003, public debt surged from 72 percent of GDP to over 100 percent of GDP.⁵⁸ In these periods, public investment was particularly high as Belize's two main political parties were locked in contested battles over upcoming national elections.⁵⁹ Hurricanes and tropical storms battered the country between 2000-02, further slowing economic growth and revenue.⁶⁰ To finance the deficits, Belize's central government turned to borrowing, mainly from external sources. In 2001, the growing deficit and borrowing spiraled so much out of control that the World Bank suspended its programme in Belize citing "fiscal and governance concerns."⁶¹ The programme was not reinstated until 2011.

Due to this borrowing and spending, Belize's economic history is marked by several major episodes of debt restructuring. In 2006, Belize restructured its debt for the first time. This move came when Belize eroded its foreign reserves after repeatedly borrowing from the Belize central bank to finance its debt.⁶² Much of Belize's public external debt at the time consisted of

⁵⁴ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁵⁵ "Current Account Balance (% of GDP) - Belize | Data."

⁵⁶ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁵⁷ "Current Account Balance (% of GDP) - Belize | Data."

⁵⁸ Tsuda, "Sovereign Debt Restructurings in Belize."

⁵⁹ Bulmer-Thomas, "Performance, Structure And Policy In The Belize Economy."

⁶⁰ Tsuda, "Sovereign Debt Restructurings in Belize."

⁶¹ Ibid.

⁶² Ibid.

short and medium-term debt that matured in 1-5 years.⁶³ This debt needed to be refinanced frequently, often done by commercial borrowing at an average high interest rate of 11.25 percent.⁶⁴ Considering the dire situation, Belizean authorities announced their intention to work with a formal committee of creditors representing holders of at least 51 percent of the debt. It is worth noting the restructuring only applied to external commercial debt and not domestic or official external creditors.⁶⁵ The negotiations concluded with Belize exchanging its external debt into one single U.S. dollar denominated bond, known as a “superbond” valued at U.S. \$547 million. The restructuring was organized under New York state law as part of a U.S. effort to shore up debt concerns across the Western hemisphere.

The superbond established several new terms for the payment and maturity of the debt. The face value of the principal debt, approximately U.S. \$547 million, did not experience a haircut. However, the coupon rate, or the annual interest rate paid on the bond divided by the face value of the bond, was lowered by 2.1 percent. The maturity of the bonds was extended by 16 years to 2029. The goal of these measures was to provide Belize with some liquidity and relieve some of its debt service burden.⁶⁶ This agreement was reached because Belize invoked a Collective Action Clause (CAC), in which a certain majority of bondholders have the ability to change a bond’s financial terms, binding other bondholders, before or after a default.⁶⁷ Most countries required the majority threshold to be holders of 75 percent of debt, but Belize required 85 percent. Ultimately, 87.3 percent of Belize’s bondholders accepted, attempting to avoid costly litigation options and the illiquidity of the bonds should they not accept.⁶⁸

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

The results of the first debt restructuring were mixed. In the short-term, the superbond provided much needed liquidity and a decline in debt service. The relief amounted to 1 percent of GDP in 2007 and 2.6 percent of GDP per year from 2008 to 2012.⁶⁹ Belize's credit rating improved as Standard & Poor's upgraded Belize's short and long term debt from CCC- to B immediately following the restructuring.⁷⁰ However, Belize's long term debt sustainability was insufficiently addressed. The superbond called for coupon rate increases over time. The rate was set at 4.25% until 2010, increased to 6% until 2012, and 8.5% until maturity.⁷¹ These increases would endanger Belize's ability to service its debt once again and played a large role in the government's decision to restructure its debt for the second time in 2012.⁷²

Following the first debt restructuring in 2006, Belize succeeded in easing short-term liquidity concerns. However, between 2006 and the next debt restructuring in 2012, Belize experienced slowed economic growth that hindered its ability to build up reserves and secure future debt service payments. Real growth decreased to an average of 1.9% between 2007-11 compared to 5.4% in 2002-06.⁷³ A series of tropical storms in 2008 decimated infrastructure and weakened the agricultural industry.⁷⁴ As previously mentioned, the coupon rate of the first superbond was set to increase once again in 2012 as per the terms of the restructured debt. Belizean authorities grew concerned about the step up and its effect on an already struggling economy. In 2012, Belize held a general election in which incumbent Prime Minister Dean Barrow made the restructuring of the 2006 superbond a key issue, even going as far as to say it

⁶⁹ Ibid.

⁷⁰ "Belize Credit Rating."

⁷¹ Tsuda, "Sovereign Debt Restructurings in Belize."

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

would be his first course of action in office.⁷⁵ With Barrow's reelection, Belize's credit rating and superbond price plummeted as investors anticipated a painful restructuring in sight.⁷⁶

Belize's second debt restructuring saw another invocation of the Collective Action Clause to force all bondholders into the new debt agreement. The new superbond saw a principal haircut of 3 percent, bringing the bond's face value to U.S. \$530 million with a nine year extended maturity date of 2038.⁷⁷ The coupon rate was adjusted to 5 percent until 2017 (4.5 years from the time of signing), followed by an increase to 6.77 percent through maturity. This was a reduction compared to the 8.5 percent coupon rate at maturity mandated by the original superbond. The results of the newly negotiated superbond was an immediate short-term relief for Belize's cash flow.⁷⁸ From 2013 to 2017, the superbond would reduce debt service obligations by U.S. \$20 million per year or about 1.1 percent of GDP.⁷⁹ Until the original superbond maturity date of 2029, Belize's debt relief was projected to be a substantial U.S. \$384 million.⁸⁰

Despite the positive short-term outlook following the second debt restructuring, Belize once again did not achieve a sustainable level of debt. In 2012, the Belizean government was in the process of nationalizing two major utility companies and future compensation payments were due to the owners of the companies.⁸¹ The expected compensation payments and continued high rates of public spending indicated the debt crisis had only been kicked further down the road.

In 2017, Belize initiated its third and final restructuring prior to the BBB. Once again approaching a coupon rate step up, Belizean authorities worried about the additional pressure

⁷⁵ Hughes, "UPDATE 1-Belize Votes with Financial Future at Stake."

⁷⁶ Ibid.

⁷⁷ Tsuda, "Sovereign Debt Restructurings in Belize."

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Selm, "Belize's 2016-17 Sovereign Debt Restructuring - Third Time Lucky?"

generated by the increased debt service payments. Public debt was at 100 percent of GDP.⁸² A combination of Hurricane Earl-related devastation in 2016, compensation payments to nationalized utilities, and lower than expected economic growth had already left the Belizean economy under stress.⁸³ The third restructuring invoked the CAC and reached the following terms: no principal haircut of the U.S. \$530 million face value debt, a coupon rate reduction to 4.9375 percent until maturity, and an extension of the grace period for principal repayments by 11 years with a shortening of 4 years for the final maturity.⁸⁴

Leading up to the BBB, Belize had restructured a single debt instrument, the superbond, three times in a span of about ten years. All 3 of these debt restructurings shared common mistakes. Each time there were overly optimistic assumptions on the ability of Belize to maintain a budget surplus. Natural disasters, liabilities like compensation payments, and slow economic growth consistently hindered economic growth following each restructuring period. All of the restructurings focused only on external commercial debt and did not consider Belize's considerable bilateral and domestic public debt. The first two superbonds included coupon rate step ups that led to calls for restructuring around the time the step up was due to happen. Each time, short term cash flow relief was prioritized without creating a long term economic and fiscal plan for Belize to sustainably manage its debt.

With Belize's economic history in mind, we can now discuss the specifics of the BBB and what led up to its creation just five years after the last debt restructuring. The history of Belize shows us that Belize's economy is prone to external shocks like natural disasters, fluctuations in tourism, and commodity price changes. Public debt has had to be restructured

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

several times, with a fiscal solvency crisis looming. The following sections will explore the specific provisions of the BBB and an analysis of whether it accounts for the mistakes of the past.

THE BELIZE BLUE BOND PROPOSAL

The COVID-19 pandemic decimated the global economy, especially burdening Small Island Developing Nations (SIDS) like Belize.⁸⁵ In his 2021 address to Belize's legislature, Prime Minister John Briceño announced the need to once again restructure the country's debt given the financial hardship and level of debt.⁸⁶ Belize was now the fifth most indebted country in the world in terms of public debt as a share of GDP.⁸⁷ Instead of reattempting to reduce the coupon rate and extend the maturity, Belize announced its intention to engage in a blue bond debt-for-climate swap. The agreement was to be facilitated by U.S. based environmental NGO, The Nature Conservancy (TNC), making it only the second blue bond in history to ever be issued.⁸⁸

The BBB targeted the superbond debt that was the target of the previous restructurings. The face value of this debt was U.S. \$553 million or about 30 percent of the GDP in 2021.⁸⁹ To provide a loan to the government of Belize, TNC established a subsidiary called the Belize Blue Investment Company (BBIC) based in Delaware, a tax haven state in the U.S. The BBIC loaned U.S. \$363 million with interest to Belize's government conditional on specific uses for the funds. The primary purpose of the money was for Belize to buy out the original bondholders at a discount and significantly reduce the outstanding public debt. As part of the deal in exchange for reduced debt, Belize agreed to establish a national Marine Trust Fund and to continue contributing to it in the future. The intention of the trust fund was to finance conservation and

⁸⁵ Antonio, "Socioeconomic Impact of the COVID 19 Pandemic in Belize | United Nations Development Programme."

⁸⁶ "Blue Loan Agreement Passed."

⁸⁷ Standing, "Debt-for-Nature Swaps and the Oceans."

⁸⁸ Ibid.

⁸⁹ Ibid.

restoration projects for the Belize Barrier Reef, a massive coral reef essential to marine ecological health in the Caribbean.⁹⁰ BBIC appointed Credit Suisse to issue the blue bonds, raise the money for the loan, and sell its newly accumulated Belizean debt to commercial investors. These investors would purchase the new blue bonds and claim to support marine conservation with their investment.

The exact text of the BBB has remained confidential and never been released to the public. However, Prime Minister Briceño made a statement to the Belizean legislature in which he shared the specific conditions for the allocation of the BBIC loan funds. U.S. \$301 million of the total U.S. \$363 million loan was to be used to directly pay off the original bondholders.⁹¹ This represented a 45% discount from the original face of the debt, saving Belize U.S. \$260 million.⁹² About U.S. \$24 million was used for the endowment of the marine trust fund.⁹³ U.S. \$10 million was set aside for a debt reserve account, acting as an insurance if interest on the loan could not be paid.⁹⁴ Another U.S. \$10 million was used for legal and advisory fees that were incurred in the negotiation and buyout of the original bondholders.⁹⁵ The final U.S. \$18 million was designated for a special “original issue discount.”⁹⁶ This 5 percent discount is larger than usual in subnational debt or corporate bond markets, but about the same for the previous blue bond in Seychelles. Credit Suisse needed to find investors to purchase the bonds it issued in order to turn a profit. The \$18 million will be used by Credit Suisse to offer a discount for the first customers and incentivize early investors on the fence. Prime Minister Briceño indicated the

⁹⁰ Ibid.

⁹¹ “Blue Loan Agreement Passed.”

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid.

loan given to Belize by the BBIC would be at a 6 percent interest rate and the full value of the loan must be repaid within a 9 year period.⁹⁷

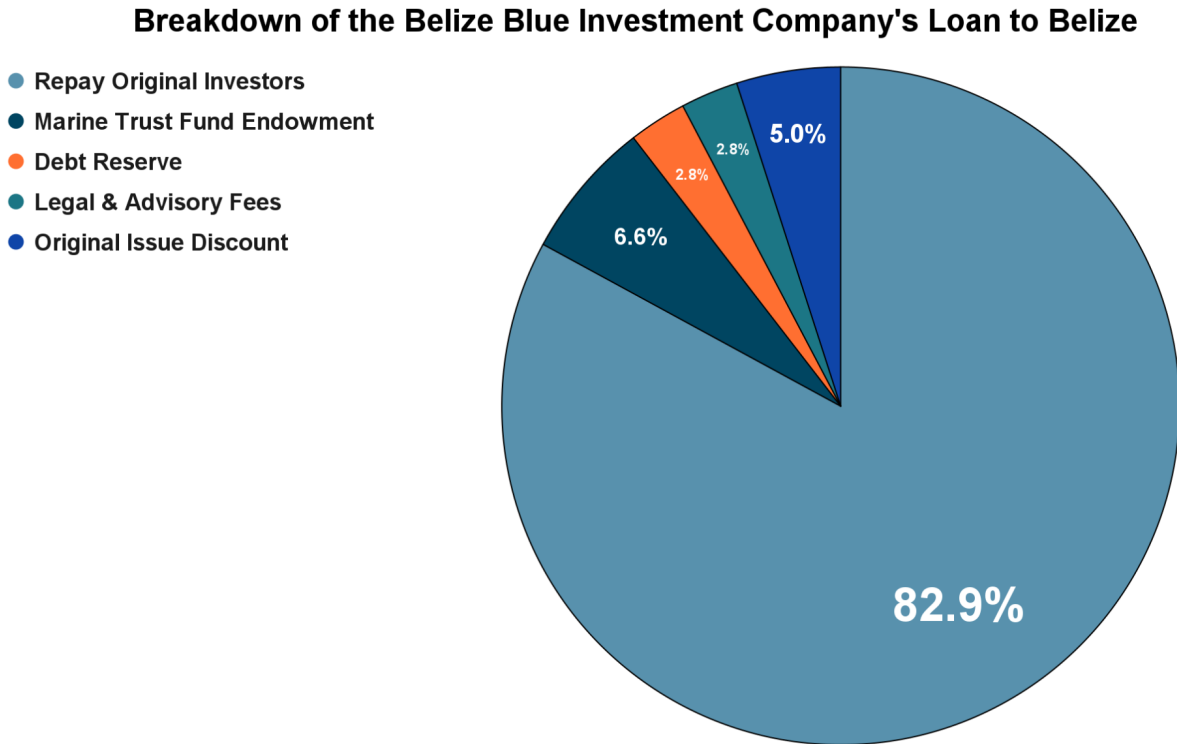


Figure 2: Allocated use of U.S. \$363 million loan issued by the Belize Blue Investment Company through the TNC’s debt-for-climate swap.⁹⁸

Investors who purchased the Belize Blue Bond received an investment guarantee by the U.S. government.⁹⁹ This was done through the International Development Finance Corporation (DFC), the United States’ development bank, which provided \$610 million in political risk insurance to pay investors both the full loan principal and interest if Belize was to default on its payments.¹⁰⁰ This insurance value is greater than the principal value of the BBB, because it

⁹⁷ Ibid.

⁹⁸ Standing, “Debt-for-Nature Swaps and the Oceans.”

⁹⁹ “DFC Provides \$610 Million in Political Risk Insurance for Innovative Debt Conversion in Support of Marine Conservation in Belize | DFC.”

¹⁰⁰ Ibid.

covers the sum of undiscounted interest payments and the principal. The United States government cited its insurance of the Belize Blue Bond as evidence of its commitment to climate finance and conservation while Credit Suisse was able to use the insurance as a selling point for investors concerned about risk. In addition, the Belize Blue Bond was the first to be covered by a “parametric insurance deal”, or an insurance policy linked to specific climate measurements.¹⁰¹ If values defined in the policy reach a threshold, then the insurance policy will cover Belize’s costs of maintaining interest rate payments. For example, the policy could be activated if a hurricane that impacts Belize is of a certain severity. The intention of the parametric insurance policy was to provide Belize with some relief during natural disasters when economic downturn and spending increases make debt service difficult. The exact terms of the policy have not been released to the public. The climate insurance policy was set to last 30 months from the creation of the blue bond and be renewed on different terms as needed afterwards.¹⁰² The policy was issued by German underwriters Munich Re but developed by Anglo-American insurance firm Wills Tower Watson.¹⁰³

A majority of 85 percent of the superbond bondholders needed to agree to the debt swap as per the Collective Action Clause. Global asset managers that held over 50 percent of the superbond debt like heavyweights Abrdn, Grantham, Mayo, Greylock Capital Management, and Van Otterloo & Co. were quick to support the swap.¹⁰⁴ The prospects of recovering the full amount of the debt owed was looking slim and investors were looking for a way out. The marine conservation aspect of the debt swap offered that exit with the benefit of creating positive press.

¹⁰¹ Delaney, “Willis Towers Watson Places Parametric Solution for Sovereign Debt.”

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Guthrie, “Belize Blue Bonds Inspire Hope for More Debt-for-Nature Deals.”

Following the support of the major bondholders, 85 percent was reached and the CAC kicked in, entering all bondholders into the debt swap agreement.

In the agreement that TNC negotiated with Belize's original debtholders, the subsidy provided to Belize is the difference between the market value of Belize's debt before the agreement and the market value of Belize's new debt following the agreement. The market values of the debt can be different from the face value, meaning that the subsidy can be vastly different than what is claimed by TNC and Credit Suisse. Prior to the Belize Blue Bond, the superbond debt was trading at about 40 cents on the dollar.¹⁰⁵ The investors were bought out at 55 cents on the dollar.¹⁰⁶ This represents a massive subsidy for investors who were able to greatly diminish their losses by accepting the swap.

As part of the Belize Blue Bond, the government of Belize agreed to several terms related to marine conservation and climate mitigation. As part of the agreement, Belize moved to double the amount of its ocean classified as Biodiversity Protection Zones from 15.9 percent to 30 percent by the year 2030.¹⁰⁷ The Belize Barrier Reef System is the second largest reef system in the world and one of the most biodiverse marine reserves in the Northern hemisphere.¹⁰⁸ Doubling the amount of protected area would restrict the amount of ocean available for commercial fishing, tourist activity, and oil and gas exploration. Additionally, in October 2022, TNC announced that it would be providing Belize with scientific expertise and technical support to draft a comprehensive Marine Spatial Plan (MSP).¹⁰⁹ An MSP is a document that deals with

¹⁰⁵ Spink and Berrospi, "Belize's Blue Bonds May Find Soggy Reception."

¹⁰⁶ *Ibid.*

¹⁰⁷ "DFC Provides \$610 Million in Political Risk Insurance for Innovative Debt Conversion in Support of Marine Conservation in Belize | DFC."

¹⁰⁸ Centre, "Belize Barrier Reef Reserve System."

¹⁰⁹ "Belize Starts Drafting Its Marine Spatial Plan."

ocean zoning. In this case, the MSP, officially named the Belize Sustainable Ocean Plan, would determine which specific areas were to be included in the expanded protected zones. Due to the economic implications on Belize's outsized fishing and tourism industries, TNC asserted they will be consulting stakeholders like local communities, fishing associations, tourism businesses, and government officials throughout the process.¹¹⁰ The plan was still being drafted at the time this paper was written.

There are several other conservation provisions outside of the expansion of Biodiversity Protection Zones. Belize is required to declare all public lands bordering the Belize Barrier Reef as mangrove reserves, effectively prohibiting the sale or use of the land. Belize was also required to pass an Integrated Coastal Zone Management law which establishes marine biodiversity offsets. Companies responsible for destruction of marine biodiversity can purchase these offsets to compensate for their pollution and protect marine biodiversity elsewhere. In addition, there are a host of general conservation undertakings like drafting national blue carbon strategies, complying with international agreements on fishery management, and developing watershed management plans.

The government of Belize also made commitments to marine conservation that use funds not related to savings generated from the debt reduction. Until 2041, Belize promised to put U.S. \$4 million into the newly created marine trust fund every year using government revenue, separate from the BBIC loan.¹¹¹ According to Prime Minister Briceño, the agreement also included penalties if Belize did not meet its conservation goals.¹¹² If defined conservation

¹¹⁰ Winters, "The Nature Conservancy Partners with The Government of Belize to Conserve 30% of Its Ocean Through Debt Conversion."

¹¹¹ Standing, "Debt-for-Nature Swaps and the Oceans."

¹¹² "Blue Loan Agreement Passed."

milestones were not completed within their grace period, the government of Belize must make a payment of U.S. \$250,000 plus a sum of U.S. \$50,000 times the number of conservation milestones that have been completed to date.¹¹³ These conservation milestones are defined in the original loan resolution, but they are unknown to the public.

With the details of the Belize Blue Bond laid out, the next section will analyze the successes and failures of the innovative climate-for-debt swap. This will include a look at statistical projections for the Belizean economy and outstanding debt, public opinion in Belize, effectiveness of conservation provisions in the agreement, evaluation of insurance policies and penalties, and concerns regarding transparency among others.

¹¹³ Ibid.

SUCCESSSES AND FAILURES OF THE BELIZE BLUE BOND

Impact on Long Term Debt Sustainability

The Belize Blue Bond provides some immediate relief for Belize by extending the maturity of the Superbond and reducing the face value of the debt. However, at the time the Belize Blue Bond contract was drafted, the BBIC made optimistic assumptions about Belize's long term economic outlook and primary balances that resembled the same errors made in Belize's previous three debt restructurings. In 2021, the IMF's World Economic Outlook and Oxford Economics offered significantly lower projections for Belize's primary surplus compared to the projections by the BBIC. For example, in the years between 2020-23, the IMF and Oxford Economic predicted an average primary balance of -0.5 and 1.2 percent of GDP respectively.¹¹⁴ In contrast, the BBIC predicted a primary surplus of 3 percent of GDP.¹¹⁵ If the projections for Belize's primary balance from 2023-2031 are graphed using the Oxford Economic, IMF, and BBIC estimates made in 2021, the differences are evident.

¹¹⁴ Munevar, "Making Sense of Belize's Blue Bond Proposal."

¹¹⁵ Ibid.

Belize Public Debt as % of GDP in Alternative Fiscal Projections

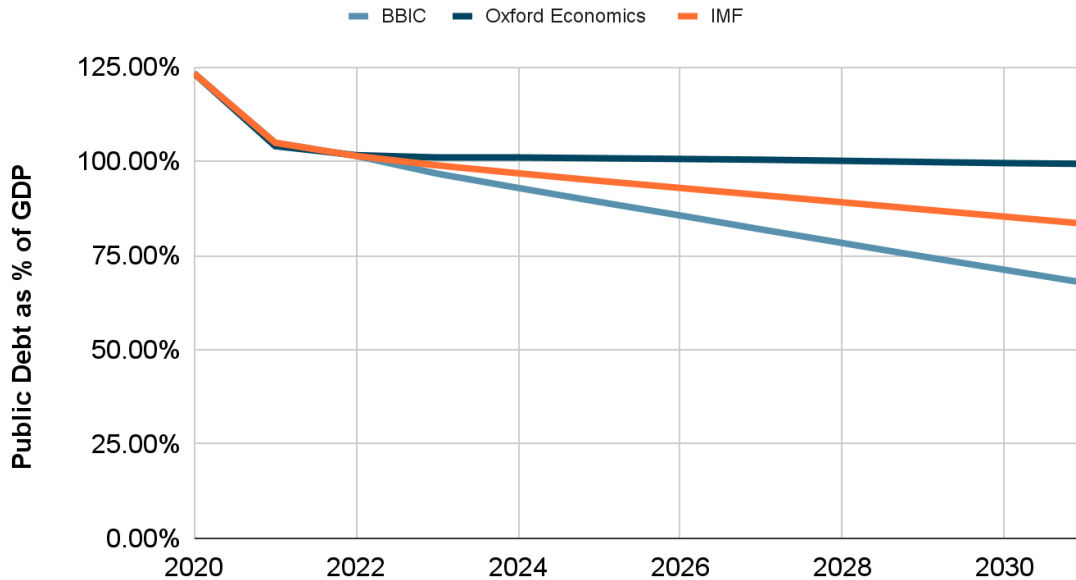


Figure 4: Belize Public Debt as % of GDP from 2020 to 2031 using 3 alternative fiscal projections of primary balance as percentage of GDP. The alternative projections made in 2021 include those by the BBIC, the IMF World Economic Outlook, and Oxford Economics.¹¹⁶

Figure 4 shows the BBIC projections estimated public debt as a % of GDP to dip below 75 percent, a level that would be considered sustainable by the IMF.¹¹⁷ Both the IMF and Oxford Economics projected debt levels that remain above 80 percent, a level considered unsustainable. These projections do not take into account potential economic and climate shocks like hurricanes, low tourist seasons, and reduced agricultural production. These factors have greatly diminished Belize’s ability to maintain a primary surplus in the past and are likely to occur again.¹¹⁸

¹¹⁶ Ibid.

¹¹⁷“Belize: Staff Concluding Statement of the 2023 Article IV Mission.”

¹¹⁸ Bulmer-Thomas, “Performance, Structure And Policy In The Belize Economy.”

In March 2023, Prime Minister Briceño provided economic data estimates for Belizean Fiscal Year 2022/23 (April 1st-March 31st) in his annual budget presentation to the National Assembly. In his presentation, he claimed public debt was on track to fall to 64.1 percent of GDP and the overall deficit would be only 1.38 percent of GDP in 2022.¹¹⁹ This is an incredible improvement considering Belize’s public debt was 101 percent of GDP in 2021.¹²⁰ At the time this paper was written, Belize has greatly outperformed the 2021 projections made by the BBIC, Oxford Economics, and the IMF in terms of lowering its debt as percentage of GDP. However, the role of the BBB in the exceptional performance of the Belizean economy is subject to further discussion.

There are several factors that could contribute to the reduction in public debt and deficit outside of the BBB. One reason is an agreement the government of Belize reached with Venezuelan authorities in 2022 to reduce Belize’s outstanding debt by about U.S. \$130 million or 4.4 percent of GDP.¹²¹ The debt was related to Venezuela’s Petrocaribe program which provides oil at a discounted rate to Caribbean member states. Another reason is following the COVID-19 pandemic Belize adopted strict expenditure cuts such as a 10 percent cut in public wages and suspension of public wage increments.¹²² As the world transitioned into a post-pandemic recovery period, economies like Belize began experiencing rapid growth. In 2022 alone Real GDP increased by 11.4 percent.¹²³ The net result was massive revenue savings that allowed the government to service its debt.¹²⁴ With the economy expected to stabilize onwards following 2023, the IMF estimates Real GDP growth will center around 2 percent annually in the medium

¹¹⁹ Briceño, “Delivering on Plan Belize.”

¹²⁰ “Belize: Staff Concluding Statement of the 2023 Article IV Mission.”

¹²¹ Ibid.

¹²² Ibid.

¹²³ Ibid.

¹²⁴ Ibid.

term.¹²⁵ The growth and temporary expenditure cuts that bolstered Belize's accounts following the pandemic will be short-lived, further putting Belize's long term debt sustainability into question.

The BBB reduces the face value of the Superbond, but it still leaves the country with a significant amount of debt. The BBB removes the Superbond and replaces it with two new forms of debt for Belize. The first is the debt owed to the new BBB bondholders whom Credit Suisse and TNC sell the debt to. The second form of debt is owed to the marine trust fund created as part of the agreement. U.S. \$24 million was initially put into the fund but Belize is required to continue contributing to it. The creation and monitoring of marine protection zones and other conservation measures required in the agreement will also require significant amounts of funding for the foreseeable future that further risks increased unsustainable borrowing.¹²⁶ This means the Belizean government may have to reduce the public spending budget in other essential sectors like public health, education, or poverty reduction.

The BBB does not address the poor fiscal policies that lead to excessive borrowing in developing countries and create debt crises. Instead, the Belize Blue Bond is shifting debt from one place to another. This is not necessarily a negative point because countries can benefit if the new debt is owed in local currency to national actors who can spend their payments domestically, enriching the local economy. This could increase national revenue and drive long term debt sustainability. The BBB shifts the debt, but maintains a high interest rate in foreign currency still

¹²⁵ Ibid.

¹²⁶ Standing, "Debt-for-Nature Swaps and the Oceans."

owed to foreign creditors.¹²⁷ Today, the two major creditors that hold Belize's debt are SEI Investments Company and Vanguard Group, both major U.S. based investment managers.¹²⁸

It is worth discussing the nature of the newly restructured BBB. It maintains an interest rate comparable to the Superbond debt at 6 percent.¹²⁹ The BBB has a 4.5 percent spread relative to the risk free rate (10-year U.S. treasury note) on the date the BBB was issued compared to 3 percent on average 3 years leading up to the BBB.¹³⁰ Like previous restructurings, it only focuses on the Superbond debt, made up only of external commercial creditors. The majority of Belize's debt is owed to domestic, multilateral, and bilateral creditors.¹³¹ Only 27 percent of Belize's debt is held by commercial creditors.¹³² By only focusing on a minority of Belize's public debt, the Belize Blue Bond narrows the scope of its impact. If there are climate or economic shocks, Belize will likely fall short of the projected surpluses in the BBB. This means it will surely fall short in its ability to repay the new debt holders and support marine conservation.

Other Metrics for Economic Analysis

Due to the relative recency of the BBB, there are limits to the types of economic analyses that can be used to evaluate its success. The question of whether a particular debt-for-climate swap is successful or not may require long term economic data that is not available as of when this paper was being written. For example, past analyses have looked at real GDP per capita, debt-service-to-exports, and external debt/GNI (Gross National Income) to measure economic growth and quality of life following debt swaps.¹³³ These analyses have examined data 10 years

¹²⁷ Composite Bloomberg Bond Trader.

¹²⁸ Ibid.

¹²⁹ Standing, "Debt-for-Nature Swaps and the Oceans."

¹³⁰ Ibid.

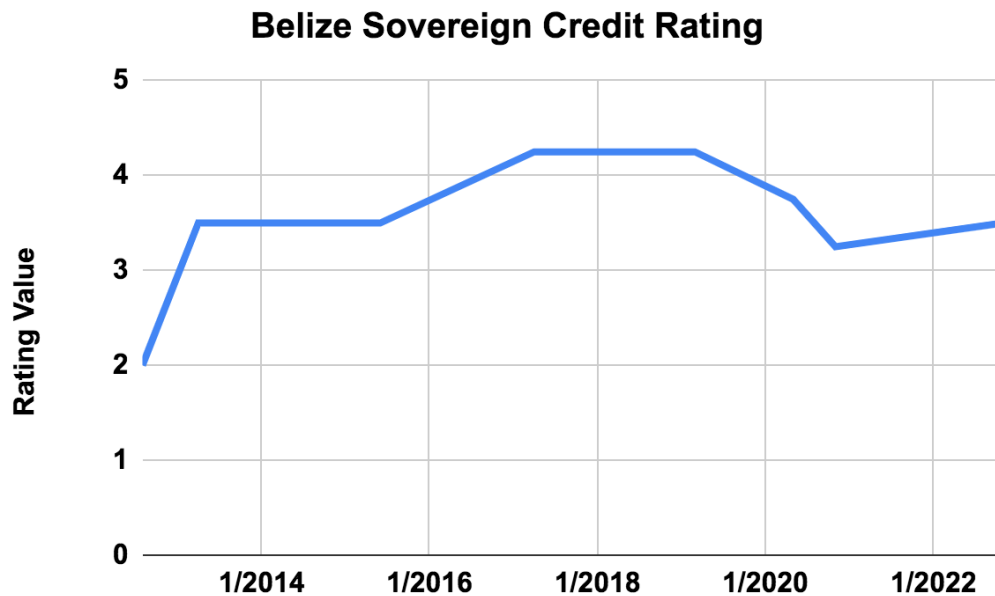
¹³¹ Munevar, "Making Sense of Belize's Blue Bond Proposal."

¹³² Ibid.

¹³³ Reinhart and Trebesch, "Sovereign Debt Relief And Its Aftermath."

or more into the future, but this paper can only rely on projections due to the recency of the BBB debt swap.

One metric that can be considered is the credit rating of Belize before and after the BBB. Sovereign credit ratings can be interpreted as a forward looking macroeconomic indicator because it reflects the country's ability to repay debts and capacity to continue borrowing.¹³⁴ Using Moody's credit ratings and a numerical value system described below, Figure 3 shows the changes to Belize's credit rating. Prior to the BBB, Belize had a Caa3 rating, implying a position on the lower end of the poor standing and high credit risk group. Following the Belize Blue Bond, Belize was upgraded to Caa2, or in the mid-range of the group. This implies that the debt swap had a small but positive impact on Belize's ability to borrow and investors' confidence in Belize to repay its debts.



¹³⁴ Ibid.

Figure 3: Sovereign Credit Rating of Belize from 2012 to 2022. The rating value was calculated by scaling Moody’s credit evaluations. The lowest credit rating, C, was assigned to 1 and the highest credit rating, Aaa, was assigned to 9. A numerical modifier of 1 or the higher end of the rating group means 0.75 is added, a modifier of 2 or middle of the rating group means 0.5 is added, and a modifier of 3 or the lower end of the rating group means 0.25 is added.¹³⁵

The Belize Blue Bonds themselves received an extremely stable rating of Aa2 from Moody’s.¹³⁶ Debt obligations under this rating are considered to be high quality and low credit risk for investors. The reason for this unprecedented high rating is the U.S. government’s insurance guarantee to cover investors’ losses if Belize were to default.¹³⁷ Therefore, the credit risk of Belize Blue Bonds are tied to the credit risk for U.S. government bonds, usually highly stable and risk-free.¹³⁸ In theory, this rating and the U.S. government’s guarantee should make Belize Blue Bonds highly marketable to investors.

Allegations of Greenwashing

The Belize Blue bond has attracted criticism for promoting “greenwashing” by allowing TNC, Credit Suisse, and investors to make exaggerated claims to the environmental benefits of the bond without evidence.¹³⁹ For example, the use of the term “blue bond” can be misleading because only a small portion of the proceeds from the loan are being used to finance marine conservation. Out of the total U.S. \$363 million being loaned to Belize, U.S. \$301 million is being used for a debt buyback. About U.S. \$38 million is being used for legal fees, debt reserves, and offered as a discount for new investors. As will be discussed in the Transparency section below, the real transaction costs could be even higher than this in the long term. Only U.S. \$24 million out of the total U.S. \$363 million loan is being directly put to use for marine

¹³⁵ “Belize Credit Rating.”

¹³⁶ “Moody’s Assigns a Definitive Aa2 Rating to Platinum’s Blue Bonds for Belize Blue Investment Company; Outlook Stable.”

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ “Barclays Sees Real Risk of Greenwashing in ESG Debt-Swap Market.”

conservation. A blue bond is a subset of a green bond. However, the BBB would not meet the World Bank's definition of a green bond, which refers to debt instruments whose proceeds are being used exclusively to fund environmentally friendly projects.¹⁴⁰ TNC claims that U.S. \$180 million has been generated for marine conservation as a result of the BBB.¹⁴¹ This is a misleading statement because this number represents the reduction in debt between the Superbond and BBB. A reduction in debt does not mean that all of the saved amount is now allocated for conservation. As discussed, only a small fraction of the loan has been specifically allocated for the Marine Trust Fund.

A significant portion of the BBB proceeds are being used for legal fees, transaction costs, and subsidies for first investors. In the process, Credit Suisse and TNC are making profits off the debt swap that raises ethical questions about potential greenwashing. The BBB is marketed as a way to reduce public debt in Belize while protecting critically valuable coral reefs.¹⁴² Yet, much of the debt Belize is taking on as part of the deal is funding profits for Credit Suisse and TNC instead of being used directly for marine conservation. Credit Suisse mediated the transaction and in return was paid for its services with an undisclosed amount. While it is customary for financial institutions to be paid fees for these services, it is important to consider the potential funding that could have been used for marine conservation (See the Transparency Section below for further discussion). It is also worth noting that Credit Suisse has used its role in the transaction as an opportunity to tout its socially and environmentally conscious minded business

¹⁴⁰ World Bank, "Climate Explainer: Green Bonds."

¹⁴¹ Winters, "The Nature Conservancy Partners with The Government of Belize to Conserve 30% of Its Ocean Through Debt Conversion."

¹⁴² Ibid.

practices.¹⁴³ There is a contradiction of using the debt swap as an opportunity to highlight their environmental values while profiting off the transaction at the expense of further conservation.

Credit Suisse's partnership with TNC raises the prospect of a conflict of interest. Banks like Credit Suisse facilitated the debt crises in developing countries in the first place.¹⁴⁴ Credit Suisse was one of the largest banks involved in lending and underwriting bonds in Latin America since it entered the market in the 1950s. In this situation, Credit Suisse takes advantage of the debt crisis by facilitating the debt swap and further profiting. There are examples of Credit Suisse engaging in illegal activity with relation to bonds in developing countries that raise concerns with their involvement in Belize. One such example includes a bond issued to develop a national tuna fishing industry in Mozambique. Credit Suisse was found guilty of promoting corruption and corporate espionage and forced to shell out fines to U.S. and British courts.¹⁴⁵ Meanwhile, the crisis cut off aid to Mozambique and worsened the country's poverty and debt crisis.¹⁴⁶ Credit Suisse claims to support marine conservation through its work in Belize, but simultaneously engages in malpractice in other developing countries.

Like Credit Suisse, TNC is a stakeholder that personally gains from the BBB at the expense of further marine conservation or other domestic priorities. The penalties within the agreement state that if Belize fails to meet its conservation benchmarks, it must pay a fine to TNC of U.S. \$250,000 plus a sum of U.S. \$50,000 times the number of conservation milestones that have been completed to date.¹⁴⁷ This is the first arrangement of its kind where a government must pay a foreign NGO penalties if it fails to meet environmental goals. The fines could further

¹⁴³ "Credit Suisse Finances The Nature Conservancy's Blue Bond for Marine Conservation for Belize."

¹⁴⁴ Sachs, "U.S. Commercial Banks and the Developing-Country Debt Crisis."

¹⁴⁵ Prentice and Revill, "Credit Suisse to Pay \$475 Mln to Resolve Mozambican Scandal Charges."

¹⁴⁶ Ibid.

¹⁴⁷ Standing, "Debt-for-Nature Swaps and the Oceans."

tighten Belize's finances and reduce the ability to spend on other critical domestic needs. Any money accumulated as a result of fines are not necessarily bound to stay within Belize because of TNC's global presence and large annual operating costs.

The BBB has also faced accusations of greenwashing the extreme levels of debt in Belize that have accumulated from unsustainable borrowing and unethical lending practices.¹⁴⁸ The model of the Belize Blue Bond has the potential to be replicated in other developing countries. Any country with high levels of public debt will be viewed as prime candidates for these sorts of debt-for-climate swaps without addressing the root causes of why the debt crisis exists in the first place. Instead, conservation groups can pay off creditors to leverage climate related projects in developing countries. In doing so, the extreme levels of debt that Belize has accumulated becomes normalized.

The Insurance Policy

The BBB has two forms of insurance that are designed to protect investors and the government of Belize if repayments are not possible at any point in time. The first form of insurance is the investment guarantee provided by the U.S. government through the International Development Finance Corporation (DFC). The DFC offered to cover the BBB with a political risk insurance policy so that if Belize cannot continue making payments, the U.S. government will assist in getting investors their money back. This loan covers both the principal U.S. \$363 million loaned and interest payments thereafter.¹⁴⁹ The main function of this insurance is to ease investors' concerns about the high risk involved with lending to Belize. In theory, this should

¹⁴⁸ "Barclays Sees Real Risk of Greenwashing in ESG Debt-Swap Market."

¹⁴⁹ "DFC Provides \$610 Million in Political Risk Insurance for Innovative Debt Conversion in Support of Marine Conservation in Belize | DFC."

lower interest rates and make it cheaper for Belize to borrow. However, the investment guarantee did not achieve this in Belize's case. The spread of interest payments as compared to risk free U.S. Treasury bonds at the date of issue increased instead of decreasing.¹⁵⁰ It is also worth noting that the insurance policy does not account for liquidity risks, because a bond that cannot default does not imply that the bond can be sold if needed.

The other insurance policy part of the BBB agreement is the parametric insurance policy that provides protection against climate related events. The policy is tied to certain thresholds related to climate shocks like hurricane severity. If this threshold is met, the policy covers interest rate payments while the Belizean government channels money to recovery and stabilization efforts in the event of a natural disaster. This would provide security against the catastrophic natural disasters that shook Belize's economy in the past and hindered its ability to make debt repayments. The policy only covers up to 2 debt service payments.¹⁵¹ Since the BBB's interest payments are semiannual, the policy could provide up to 1 year of relief for Belize's government to focus on disaster recovery.

Belize's insurer is Munich Re, a German underwriter, and the policy was developed by U.S. and British insurance firm Wills Tower Watson (WTW). WTW is owned by Elliott Management, a prominent U.S. hedge fund. Elliott Management is known for its practice of purchasing sovereign bonds issued by debt straddled developing countries and aggressively litigating when the country defaults on its debt to recover the full amount owed.¹⁵² The practice has earned Elliott Management the title of "vulture fund" by some media accounts.¹⁵³

¹⁵⁰ Tsuda, "Sovereign Debt Restructurings in Belize."

¹⁵¹ Conway, Dhanjal, and Wade, "WTW-Designed Parametric Solution Protects Belize's Blue Bond Debt Servicing from Climate Disasters."

¹⁵² Kolhatkar, "Paul Singer, Domsday Investor."

¹⁵³ Ibid.

There is reason to believe that the first of its kind parametric insurance policy carries significant risk for Belize. The official policy is not available to the public, but WTW claims the policy's thresholds were designed to only be surpassed on events that cause damage equivalent to over 20 percent of GDP.¹⁵⁴ Since the BBB took effect, Belize experienced one major storm in 2022, Hurricane Lisa. The strong winds and storm surges wreaked havoc on critical infrastructure and housing in Belize. Nearly 40 percent of the population was affected by the damage to homes.¹⁵⁵ The official estimate of the total damages from the hurricane was U.S. \$121 million.¹⁵⁶ The GDP of Belize as of 2021, when the policy was drafted, is U.S. \$2.4 billion.¹⁵⁷ This means the parametric insurance policy is designed to activate only when damages reach over about U.S. \$500 million or 20 percent of U.S. \$2.4 billion. Belize has never experienced damages from a hurricane that have exceeded this amount in cost even while adjusting for inflation.¹⁵⁸ Considering Belize pays for the policy through premiums built into the debt service payments of the BBB, it is worth evaluating the real benefits of the policy to Belize versus the profits it generates for foreign companies Munich Re, WTW, and Elliott Management.

Transparency

One concern about the BBB is the lack of transparency with regards to its negotiation, agreement, and future planning. A large percentage of Belize's debt was swapped with new terms and huge swaths of Belize's oceans were included in environmental protection provisions, but none of the official documents of the agreement are publicly available outside of an annex listing general conservation milestones. The legal contract between the Belize Blue Investment

¹⁵⁴ Conway, Dhanjal, and Wade, "WTW-Designed Parametric Solution Protects Belize's Blue Bond Debt Servicing from Climate Disasters."

¹⁵⁵ "Belize Asks for Funds in the Aftermath of Hurricane Lisa | Loop Caribbean News."

¹⁵⁶ "Hurricane Lisa Situation Report 8 - 16 November 2022."

¹⁵⁷ O'Neill, Aaron. "Belize - Share of Economic Sectors in Gross Domestic Product 2021."

¹⁵⁸ *Advancing Disaster Risk Finance in Belize*.

Company and the government of Belize is not available. The lack of public information is not unusual for TNC mediated debt swaps as no information was provided in the prior Seychelles blue bond debt swap.

Belizean Prime Minister John Briceño claims that U.S. \$10 million of the total U.S. \$363 million loan from the Belize Blue Investment Corporation was used to pay legal and advisory fees, essentially the cost of the transaction.¹⁵⁹ The real cost occurs over the lifetime of the bond until 2040. There is a difference between the interest payments Belize makes and the returns Credit Suisse provides to investors. The difference, Credit Suisse and TNC claim, pays for costs like accounting, auditing, financial rating agencies, insurance premiums to both the U.S. Development Finance Corporate and Munich Re, and repayment of a U.S. \$10.5 million loan from TNC to Belize at 3% interest.¹⁶⁰ TNC also states the difference will provide reimbursement for time spent by staff on conservation work.¹⁶¹ The BBB interest rate started at 3 percent as of 2021 but will gradually increase to 6 percent as of 2026 until it is paid off in 2040.¹⁶² The interest rate of the blue bonds being sold by Credit Suisse offer an initial 1.6 percent return as of 2021 and a gradual increase to 4.5 percent as of 2026.¹⁶³ Over the course of the bond's lifetime, the difference adds up to about U.S. \$86 million.¹⁶⁴

The U.S. \$86 million amount is certainly more substantial than the U.S. \$10 million that was advertised by Belizean officials. Clearly, the costs and benefits of the BBB were misrepresented. This lack of transparency is concerning because the debt swap is being funded

¹⁵⁹ "Blue Loan Agreement Passed."

¹⁶⁰ White, "Wall Street's New ESG Money-Maker Promises Nature Conservation — With a Catch."

¹⁶¹ Ibid.

¹⁶² "Blue Loan Agreement Passed."

¹⁶³ White, "Wall Street's New ESG Money-Maker Promises Nature Conservation — With a Catch."

¹⁶⁴ Ibid.

directly by Belize and U.S. taxpayer money. Though Credit Suisse has not outright stated the amount of profit they are making from the BBB, the debt swap is essentially free money for the bank. The U.S. government promises to recover investors' money in the event Belize defaults, meaning Credit Suisse is taking on very low risk with guaranteed returns. The balance sheet costs and interest rate risk while Credit Suisse places the bonds are the only costs incurred and certainly much smaller than the scale of profits.

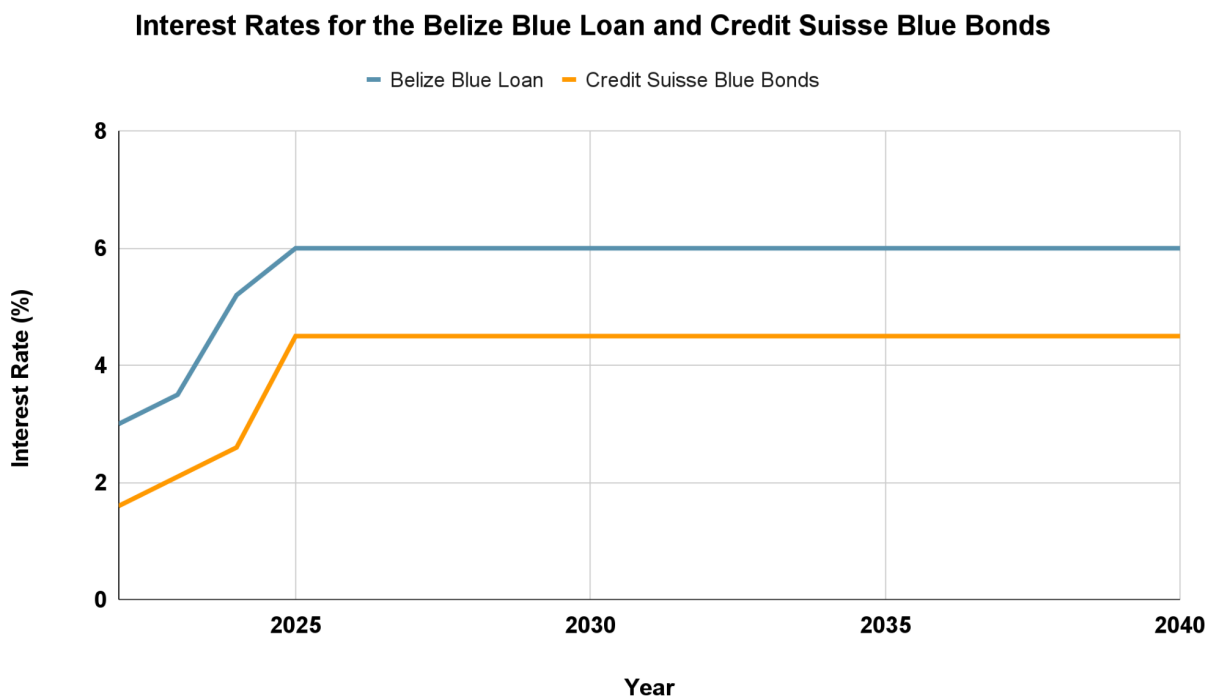


Figure 5: Interest Rates vary for the loan given to Belize's government and the Credit Suisse blue bond debt sold to investors. Over the bond's lifetime, the difference between the interest rates adds up to U.S. \$86 million in revenue for Credit Suisse and TNC, some of which they state is used for operational and transactional costs.¹⁶⁵

Another issue with regards to transparency is drafting of the conservation requirements in the Belize Blue Bond. Debt-for-climate swaps have been controversial among environmental and

¹⁶⁵ Ibid.

indigenous groups, one reason being they risk infringing on the sovereignty of developing countries and indigenous communities.¹⁶⁶ In this specific debt-for-climate swap, the concern is over the vulnerable position of Belizeans who rely on the fishing industry and are likely to be impacted by new environmental protections. The biggest concern stems around the designation of marine protected zones that would close off large parts of the ocean to economic activity like commercial fishing or tourism. TNC has stated they will incorporate the input of small scale fishers and Belize government officials while drafting the Marine Spatial Plan.¹⁶⁷ TNC has also pledged to channel funds to local NGOs in the actual implementation of environmental projects instead of directly getting involved.¹⁶⁸ These are promising signs that TNC is committed to participatory processes, but there are reasons for apprehension.

TNC takes on a dominant and outsized position with regards to national policy debate because of its role in the organization, financing, and drafting of the Belize Blue Bond. Part of the loan contract requires TNC to have a seat in the stakeholder steering committee that is responsible for drafting management plans.¹⁶⁹ TNC is the world's largest conservation organization. Its assets and annual revenues are larger than some small countries it works with.¹⁷⁰ The governing board is composed of big hedge funds and investment banks.¹⁷¹ Given how dependent TNC and other environmental NGOs are on the private sector, it is not far-fetched to believe the private sector will be able to exert greater influence over policy debates in developing countries like Belize.

¹⁶⁶ Aligiri, "Give Us Sovereignty or Give Us Debt: Debtor Countries' Perspective on Debt-for-Nature Swaps."

¹⁶⁷ Winters, "The Nature Conservancy Partners with The Government of Belize to Conserve 30% of Its Ocean Through Debt Conversion."

¹⁶⁸ Ibid.

¹⁶⁹ Standing, "Debt-for-Nature Swaps and the Oceans."

¹⁷⁰ "The Nature Conservancy's 2021 Annual Report."

¹⁷¹ Ibid.

One other significant concern regarding transparency in the Belize Blue Bond is the omission of regulations for oil. In the original contract between TNC and the government of Belize, there was a clause banning offshore oil exploration and production in Belize's waters.¹⁷² Before the contract was made official, the government of Belize had the clause removed.¹⁷³ Since then, local NGOs and fishing communities have petitioned the government to stop any oil exploration because of the serious threat oil production poses to fragile marine ecosystems. In closed meetings, Prime Minister Briceño has indicated that he intends to move forward with offshore seismic testing for petroleum deposits.¹⁷⁴ The relative silence by the media and TNC about the omission of such a crucial clause to the protection of Belize's oceans, raises alarms about the true intentions behind the Belize Blue Bond and its potential effectiveness.

¹⁷² Ysaguirre, "Oceana Belize Launches Anti-Oil Referendum."

¹⁷³ Ibid.

¹⁷⁴ Ibid.

LESSONS LEARNED FROM THE BELIZE BLUE BOND

The main question that this paper attempts to answer is whether debt-for-climate swaps are an effective policy to reduce debt in developing countries and successfully promote conservation and pro-climate projects. As the case of Belize demonstrates, answering this question is incredibly complex because it is so difficult to define and measure success in this context. This is largely in part also because involved parties have not made much of the relevant information public. In Belize, the debt-for-climate swap is controversial because of this reason. TNC and the government of Belize point to dramatic reductions in public debt as a sign the swap worked.¹⁷⁵ They cite Belize's pledge to designate 30 percent of its coastal waters as an environmental success story.¹⁷⁶ The bond has won dozens of international awards for its innovation in climate finance and drawn great praise from the IMF, World Bank, and media outlets around the world.¹⁷⁷ Doing a deep dive into the BBB, this paper has highlighted the real benefits of rethinking how debt is owed by developing countries, especially given their importance in addressing the climate crisis.

Once bondholders agreed to the terms of the BBB debt swap, Belize reduced its public debt by 10 percent of GDP overnight.¹⁷⁸ The next year and a half saw public debt fall to below 70 percent of GDP, some of the lowest levels in decades.¹⁷⁹ The BBB certainly contributed to this dramatic reduction, but other factors like strict expenditure cuts and revenue increases following the COVID-19 pandemic or bilateral debt negotiations with Venezuela have had a major impact

¹⁷⁵ Briceño, "Delivering on Plan Belize."

¹⁷⁶ Winters, "The Nature Conservancy Partners with The Government of Belize to Conserve 30% of Its Ocean Through Debt Conversion."

¹⁷⁷ Standing, "Debt-for-Nature Swaps and the Oceans."

¹⁷⁸ Briceño, "Delivering on Plan Belize."

¹⁷⁹ Ibid.

as well. The responsible fiscal practices Belize adopted during and after the pandemic merit praise for their success. It is also worth noting that Belize is only paying interest until 2031 because of the 10 year grace period on principal payments.¹⁸⁰ The true impact of the Belize Blue Bond can only be determined after observing how Belize manages the full payments. For these reasons, how much of Belize's short-term success is attributable to the Belize Blue Bond is debatable.

The success of the Belize Blue Bond as an investment is because of the U.S. International Development Finance Corporation's insurance against default. Investors were wary of purchasing the Belize Blue Bond considering the novelty of blue bonds and Belize's turbulent history of defaults.¹⁸¹ Having the U.S. government insure investors eased their concerns, earned a low risk credit rating from Moody's, and allowed Credit Suisse to better market the debt.

The marine conservation requirements of the Belize Blue Bond are historic in their scope. In theory, doubling the amount of ocean under protected status and designating all surrounding public land as protected mangrove reserves offer much needed relief to the Belize Barrier Reef. The introduction of financial penalties promises to keep Belize true to its commitments, but as previously discussed, open up ethical concerns over a developing country paying large sums to a foreign NGO. The impact of the agreement on Belize's fishing and tourist industry also remains to be seen. TNC says they will incorporate local fishing communities and Belizean representatives into the planning process, but TNC's presence in stakeholder decision making committees and their outsized influence will certainly impact all conservation policy in Belize. The omission of a clause preventing oil exploration and extraction off the coast of Belize from

¹⁸⁰ White, "Wall Street's New ESG Money-Maker Promises Nature Conservation — With a Catch."

¹⁸¹ Ibid.

the agreement also generates suspicion to the extent of how effective the Belize Blue Bond's marine conservation efforts will be.

This paper has also highlighted serious criticisms of the BBB. To start with, the scope of the debt swap only focuses on external public debt despite it only being a small minority of Belize's outstanding debt.¹⁸² This narrow focus repeats the same mistake of debt restructuring attempts in Belize's past, each of which failed to bring Belize to a sustainable level of debt. It also prioritizes foreign investors over domestic investors. In 2020, knowing Belize was on the cusp of another default, the BBB provided a lifeline to private foreign investors. Despite the 45 percent haircut off the principle, these investors were given a chance to exit with an above market value of their holdings.¹⁸³ Belize entered a new form of debt obligation, extending the maturity date as in previous debt restructurings. These new obligations were once again owed to foreign private investors, specifically two major U.S. hedge funds.¹⁸⁴

Lack of transparency has been a big concern with debt-for-climate swaps in the past and remains a concern with the BBB. The loan given to Belize by TNC has an alarming amount allocated for subsidizing investors, legal and advisory fees, and a climate insurance policy that is unlikely to cover interest rates in the event of a natural disaster. The agreement is financed by taxpayers in Belize and the U.S. while Credit Suisse is expected to make huge profits off a completely risk free investment.¹⁸⁵ Though TNC and Credit Suisse have earned big sums in the transaction at Belize's expense, few official documents have been released to the public such as

¹⁸² Standing, "Debt-for-Nature Swaps and the Oceans."

¹⁸³ Spink and Berrospi, "Belize's Blue Bonds May Find Soggy Reception."

¹⁸⁴ Composite Bloomberg Bond Trader.

¹⁸⁵ White, "Wall Street's New ESG Money-Maker Promises Nature Conservation — With a Catch."

the official loan agreement and climate insurance policy terms. Ultimately, this erodes the trust Belizeans can place in the BBB and brings forth allegations of greenwashing.

Addressing Belize's debt was a step in the right direction. Recognizing the need for Belize to protect its critically important marine biodiversity in the face of climate change was also forward thinking. Linking debt financing to conservation is not a new concept but the scale on which it was applied makes the BBB an especially important case study.

THE FUTURE OF DEBT-FOR-CLIMATE SWAPS

The lessons learned from the Belize Blue Bond can provide a glimpse into the future of debt-for-climate swaps and the eco-bond market. Debt-for-climate swaps are poised to become more important than ever in the coming decades as developing countries seek ways to reduce their rising public debt and address the effects of climate change. According to the World Bank, 37 low-income countries are at high risk of debt distress as of 2023.¹⁸⁶ As Figure 6 demonstrates, these debt distressed countries also tend to be some of the most vulnerable to climate change. The Seychelles and Belize were the first to act and execute blue bond debt swaps but many other countries are lining up for similar debt-for-climate swaps. Gabon has proposed a U.S. \$700 million restructuring to protect its marine life, Ecuador is developing a U.S. \$800 million swap, and Sri Lanka is interested in a U.S. \$1 billion deal.¹⁸⁷ Experts predict the growing interest to

¹⁸⁶ “Debt Sustainability Analysis.”

¹⁸⁷ White, “Wall Street’s New ESG Money-Maker Promises Nature Conservation — With a Catch.”

form a global debt-for-climate swap market worth over U.S. \$800 billion.¹⁸⁸

■ In or at high risk of debt distress ■ No imminent debt crisis

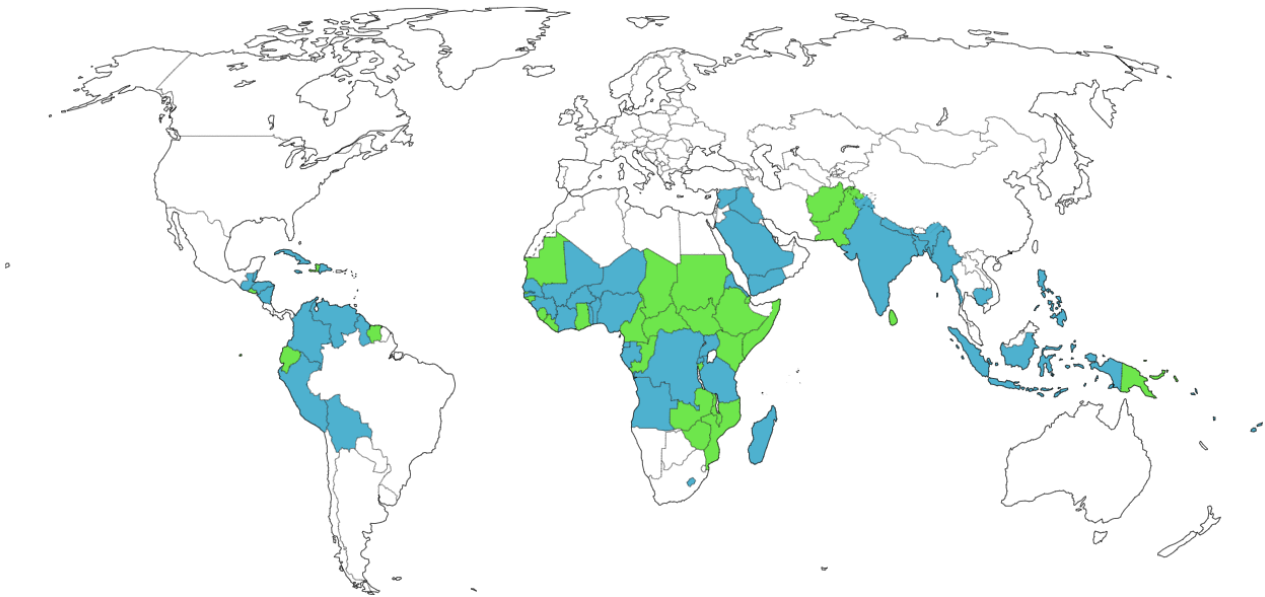


Figure 6: Risk of debt distress in climate vulnerable countries. Map illustrates that many of the most climate-sensitive countries in the world are facing debt crises, especially in Africa. Graphic from Bloomberg News.¹⁸⁹

As debt-for climate swaps become more popular, opposition has grown. During the United Nations’ COP15 biodiversity conference in Montreal, dozens of nonprofits and environmental activists led by Greenpeace released a statement condemning debt-for-climate swaps as the future of climate change mitigation.¹⁹⁰ Some of their criticisms are similar to the concerning aspects found in the BBB. One of the issues with the BBB was the amount Credit Suisse, Munich Re, and U.S. hedge funds were making from a deal meant to protect Belize’s coastal waters. The introduction of foreign investment banks, NGOs, and insurance firms leads to unnecessary third parties taking taxpayer money that could be used for conservation or other

¹⁸⁸ Ibid.

¹⁸⁹ Ibid.

¹⁹⁰ “Financing the 30x30 Agenda for the Oceans.”

domestic priorities. In the BBB, millions of dollars were exchanged in the deal yet only a small portion was marked for conservation related purposes. The inefficiency of the transaction maintains high levels of debt for Belize and reduces funds available for domestic programs.

There are other risks associated with involving the private financial sector in conservation efforts through debt-for-climate swaps. One concern is that debt-for-climate swaps endorse the idea of saving nature as a profit making endeavor. Ultimately, making marine conservation dependent on profitability supports an idea of the ocean as an unlimited resource for economic growth. It raises the question if conservation projects will be completed only if they generate wealth for investors. This is an unsustainable way of thinking that has historically been rejected by environmentalists and indigenous groups.¹⁹¹

The lack of transparency in the Belize Blue Bond is a common occurrence in debt-for-climate swaps. Because disclosing the nature of these swaps beforehand can alter bond markets, the deals are negotiated in secret. Because of this, voters in developing countries do not get to voice their concerns about the swap before it is enacted. Additionally, the official documents regarding the swap remain confidential, preventing citizens from learning what the swap entails or how much foreign financial institutions are earning at taxpayer expense. When conservation trust funds or domestic NGOs are set up to manage the country's newfound savings, there is little input from the public on their mission or directive. Additionally, the funds are locked in to be used by these conservation funds and NGOs, reducing the flexibility of the government to use the debt swap savings as needed. Like in the case of Belize, the contracts of these swaps can commit governments to putting money into the funds for the long-term. This

¹⁹¹ Aligiri, "Give Us Sovereignty or Give Us Debt: Debtor Countries' Perspective on Debt-for-Nature Swaps."

may force governments to divert money from essential public services like healthcare or education to sustain the conservation trusts or NGOs.

Though debt-for-climate swaps will experience tremendous growth in the coming years, some experts argue that other forms of climate financing are more effective in promoting conservation than debt-for-climate swaps. They make the case that other forms of debt restructuring are also more effective in reducing public debt levels. The debate over which debt restructuring and climate finance policies are most effective will only get more intense as more developing countries seek out innovative ways to refinance their debt and mitigate climate change.

ALTERNATIVE POLICIES TO DEBT-FOR-CLIMATE SWAPS

Previous literature from the World Bank and U.S. government has found evidence that by linking commercial financial institutions to conservation through debt-for-climate swaps, the financial institutions benefit more greatly than developing countries where the swaps occurred.¹⁹² Depending on the country and its fiscal situation, there are more effective policies. There are several situations in which a country cannot finance climate investments.¹⁹³ One reason is that a country's high credit risk leads to borrowing constraints and disinvestment. Another reason is lack of fiscal space to borrow. A country may have a sustainable level of debt, but further borrowing for climate projects may push the debt to unsustainable levels. This means that traditional climate finance tools like green bonds are not feasible because they would bring debt to unsustainable levels. The last reason is that debt is unsustainable regardless of climate investment. We will focus on situations of unsustainable levels of debt because this represents the case of Belize in 2021.

In countries with unsustainable levels of debt, climate investment can strongly impact or not strongly impact sovereign risk. If there is no potential impact of climate actions on sovereign risk, the first course of action should be to achieve debt sustainability through a comprehensive debt restructuring. If debt levels are unsustainable, a country cannot repay creditors and fund the climate investment simultaneously. A donor or creditor looking to promote climate investment will have to make a higher contribution in order to both buy back the original creditors' debt and additional funds to complete the climate investment.¹⁹⁴ The funds are not entirely going towards climate investment, instead subsidizing the original creditors. Additionally, debt-for-climate

¹⁹² Kushner et al., "Developing Country Debt: Debt Swaps for Development and Nature Provide Little Debt Relief."

¹⁹³ Zettelmeyer, "Debt-for-Climate Swaps."

¹⁹⁴ Ibid.

swaps focus on one creditor or one type of creditor class.¹⁹⁵ In the case of the BBB, the swap only affected foreign commercial creditors. The result is that a debt swap can reduce debt, but does not necessarily lead to debt sustainability in the long-term. A better option is a comprehensive debt restructuring that addresses all forms of public debt across creditor classes to ensure long-term debt sustainability. The climate investment support should come in the form of separate climate-conditional grants or a combination of grants and loans. These grants are interest free, do not require repayment, and can only be used for climate projects. The conditionality of the grant should be negotiated directly with the recipient country to ensure it meets their best interests. The grants could come from donors such as environmental NGOs, multilateral institutions like the World Bank, or other countries in the form of foreign aid. All of the donated or loaned funds would be used exclusively on climate projects unlike the debt-for-climate swap, making the de-linking of debt restructuring and climate finance much more efficient.

One argument against comprehensive debt restructuring is that the process can cause traumatic reputational and financial harm to a debtor country. The costs of a painful structured default can be so great that a smaller debt swap may be preferable. However, as we saw in the case of Belize, repeated small debt restructurings do not fix long-term debt sustainability issues. Each subsequent default only worsens the credit risk of the country and leads to more economic distress. If a debt swap cannot address a high risk country's long-term debt sustainability issues, then a comprehensive debt restructuring is more appropriate. Research has shown that in the

¹⁹⁵ Ibid.

long-term, a comprehensive debt restructuring is less reputationally and economically costly than a disorderly default or post-default restructuring.¹⁹⁶

In the case of countries with unsustainable debt where sovereign risk can be affected by climate action, there is a case that can be made for debt-for-climate swaps. This usually refers to small island nations where frequent climate shocks adversely impact economic activity and reduce levels of debt sustainability. For these countries, providing debt relief without provisions for climate adaptation can lead to a moral hazard problem.¹⁹⁷ If a country participates in a debt-for-climate swap, the best course of action is to prioritize climate financing over debt service to ensure the climate projects are funded to completion. Debt-for-climate swaps are promising under these narrow sets of conditions: unsustainable levels of debt, high sovereign risk associated with climate action, and prioritization of climate finance over debt service. Most importantly, debt-for-climate swaps must maximize benefit to the debtor country and keep external costs to a minimum if they are to successfully replace the combination of comprehensive debt restructuring and climate conditional grants.

From the perspective of a donor or creditor looking to maximize the environmental impact of their donation or investment, a climate conditional grant or loan is far more efficient than a debt-for-climate swap because it ensures all the funds will be used for green projects. Dealing with third-party creditors not involved with conservation absorbs extra funds that detract from further conservation. Debt-for-climate swaps in high risk countries like Belize only work if they receive an insurance guarantee, like the U.S. government's guarantee of the Belize Blue Bond—a feature that may not be included in every debt-for-climate swap in the future. While

¹⁹⁶ Asonuma and Trebesch, "Sovereign Debt Restructurings: Preemptive or Post-Default."

¹⁹⁷ Ibid.

debt-for-climate swaps have a place in the future of climate finance, they are useful in a limited scope and require specific features to be successful. De-linking climate finance and debt restructuring has more promise to see climate projects through to completion while ensuring there is long-term debt sustainability and preserving the sovereignty of the debtor country.

CONCLUSION

Though they are not a new concept, debt-for-climate swaps are experiencing a 21st Century resurgence. Media attention has been mostly positive for these debt swaps and created an image of a global win-win situation. This paper sought to evaluate the merits and flaws of debt-for-climate swaps and paint the full picture of what they encompass. Belize's 2021 debt swap was the largest debt-for-climate swap to date and one of the first examples of a blue bond. By using the case study of the Belize Blue Bond, this paper evaluated how well the debt swap helped Belize reach its goals of promoting marine conservation and achieving debt sustainability.

In terms of achieving debt sustainability, Belize has dramatically reduced its public debt levels since 2021. How much of the improvement is attributable to the debt swap is unclear because of other confounding economic policies. From a conservation standpoint, the Belize Blue Bond doubles the area of Belize's protected oceans, but does not account for maintenance costs. There is doubt over the meaningfulness of the protected status given the Belizean government's inclinations to develop offshore oil exploration and extraction. Lack of transparency over both the debt swap and conservation provisions in the Belize Blue Bond contract has created suspicion over potential greenwashing. Only a small portion of the loan provided to Belize actually is allocated for conservation purposes. The vast majority went to buy back debt and pay transaction, legal, and advisory fees. Private financial institutions like Credit Suisse are estimated to generate massive profits from facilitating and insuring the debt swap at the expense of Belize's taxpayers.

The inefficiency of the Belize Blue Bond has rightfully drawn criticisms of debt-for-climate swaps. This paper highlighted alternate policies like comprehensive debt

restructurings and climate conditional grants in countries with unsustainable levels of debt in place of debt-for-climate swaps. Debt-for-climate swaps still have a utility but under a rather narrow set of conditions. From the perspective of a donor or creditor looking to maximize their environmental impact, the Belize Blue Bond and other debt-for-climate swaps do not provide as much funding for green projects as it may seem from media reports.

The recency of the Belize Blue Bond means that further evaluation will be needed to see its long-term impacts. In the meanwhile, debt-for-climate swaps will become more widespread. Future research should incorporate long-term economic and environmental data to observe the utility of debt-for-climate swaps. The lack of transparency should be further studied by gathering public opinion data about the swaps in debtor countries. To hold countries, creditors, NGOs, and financial institutions behind these debt-for-climate swaps accountable for greenwashing unsustainable levels of debt, greater attention is needed from researchers and policymakers. The dual threat of the climate crisis and debt inequality has never made such research more urgent for developing countries and billions of people around the world.

BIBLIOGRAPHY

- Advancing Disaster Risk Finance in Belize*. World Bank, 2018. <https://doi.org/10.1596/33088>.
- Aligiri, Priya. "Give Us Sovereignty or Give Us Debt: Debtor Countries' Perspective on Debt-for-Nature Swaps." *American University Law Review* 41, no.1 (1992): 485-516. <https://www.bloomberg.com/news/articles/2023-01-12/bankers-bet-millions-on-sovereign-debt-deals-tied-to-green-goals>.
- Amandala Newspaper. "Belize Starts Drafting Its Marine Spatial Plan," October 22, 2022. <https://amandala.com.bz/news/belize-starts-drafting-its-marine-spatial-plan/>.
- Amandala Newspaper. "Blue Loan Agreement Passed," October 30, 2021. <https://amandala.com.bz/news/blue-loan-agreement-passed/>.
- Antonio, Denise. "Socioeconomic Impact of the COVID 19 Pandemic in Belize | United Nations Development Programme." UNDP. Accessed March 12, 2023. <https://www.undp.org/belize/publications/socioeconomic-impact-covid-19-pandemic-belize>.
- "Articles of Agreement of the International Monetary Fund." Accessed February 21, 2023. <https://www.imf.org/external/pubs/ft/aa/index.htm>.
- Asonuma, Tamon, and Christoph Trebesch. "Sovereign Debt Restructurings: Preemptive or Post-Default." *Journal of the European Economic Association* 14, no. 1 (February 1, 2016): 175–214. <https://doi.org/10.1111/jeea.12156>.
- "Belize Credit Rating." Accessed March 4, 2023. <https://tradingeconomics.com/belize/rating>.
- "Belize - Market Overview | Export.Gov." Accessed April 7, 2023. https://www.export.gov/article?series=a0pt0000000GnExAAK&type=Country_Commercial_kav.
- Bloomberg.com. "Barclays Sees Real Risk of Greenwashing in ESG Debt-Swap Market," January 23, 2023. <https://www.bloomberg.com/news/articles/2023-01-23/barclays-sees-real-risk-of-greenwashing-in-esg-debt-swap-market>.
- Briceño, John. "Delivering on Plan Belize." Presented at the Government of Belize Budget Meeting, March 10, 2023. <https://www.nationalassembly.gov.bz/wp-content/uploads/2023/03/Mar-10-Prime-Ministers-Budget-Presentation.pdf>.
- Bulmer-Thomas, Victor. "Performance, Structure And Policy In The Belize Economy." *Anuario de Estudios Centroamericanos* 46 (2020): 1–17. <https://doi.org/10.15517/AECA.V46I0.43825>.
- Centre, UNESCO World Heritage. "Belize Barrier Reef Reserve System." UNESCO World Heritage Centre. Accessed March 13, 2023. <https://whc.unesco.org/en/list/764/>.
- Coalition for Fair Fisheries Arrangements. "Financing the 30x30 Agenda for the Oceans: Debt for Nature Swaps Should Be Rejected," December 6, 2022. <https://www.cffacape.org/publications-blog/joint-statement-financing-the-30x-30-agenda-for-the-oceans-debt-for-nature-swaps-should-be-rejected>.
- Conway, Sarah, Maya Dhanjal, and Georgina Wade. "WTW-Designed Parametric Solution Protects Belize's Blue Bond Debt Servicing from Climate Disasters." Willis Towers Watson. Accessed March 20, 2023. <https://www.wtwco.com/en-HK/insights/2022/09/wtw-designed-parametric-solution-protects-belizes-blue-bond-debt-servicing-from-climate-disasters>.

- “Credit Suisse Finances The Nature Conservancy’s Blue Bond for Marine Conservation for Belize.” Accessed March 19, 2023. <https://www.credit-suisse.com/about-us-news/en/articles/media-releases/credit-suisse-finances-the-nature-conservancys-blue-bond-for-marine-conservation-for-belize-202111.html>.
- Delaney, Rebecca. “Willis Towers Watson Places Parametric Solution for Sovereign Debt.” *Captive Insurance Times*. Accessed March 13, 2023. https://captiveinsurancetimes.com/captiveinsurancenews/article.php?article_id=7823.
- “Details of Tax Revenue - Belize.” Accessed February 27, 2023. <https://stats.oecd.org/Index.aspx?DataSetCode=REVBLZ>.
- “DFC Provides \$610 Million in Political Risk Insurance for Innovative Debt Conversion in Support of Marine Conservation in Belize | DFC.” Accessed March 12, 2023. <https://www.dfc.gov/media/press-releases/dfc-provides-610-million-political-risk-insurance-innovative-debt-conversion>.
- Fatica, Serena, Roberto Panzica, and Michela Rancan. “The Pricing of Green Bonds: Are Financial Institutions Special?” *Journal of Financial Stability* 54 (June 1, 2021): 100873. <https://doi.org/10.1016/j.jfs.2021.100873>.
- Flammer, Caroline. “Corporate Green Bonds.” *Journal of Financial Economics* 142, no. 2 (November 1, 2021): 499–516. <https://doi.org/10.1016/j.jfineco.2021.01.010>.
- Guthrie, Amy. “Belize Blue Bonds Inspire Hope for More Debt-for-Nature Deals.” *Law.com International*. Accessed April 7, 2023. <https://www.law.com/international-edition/2021/11/10/belize-blue-bonds-inspire-hope-for-more-debt-for-nature-deals/>.
- Hughes, Krista. “UPDATE 1-Belize Votes with Financial Future at Stake.” *Reuters*, March 7, 2012, sec. Oil & Gas Drilling. <https://www.reuters.com/article/belize-election-idUSL2E8E788020120307>.
- “Hurricane Lisa Situation Report 8 - 16 November 2022.” Pan American Health Organization & World Health Organization. Accessed March 20, 2023. <https://www.paho.org/en/documents/hurricane-lisa-situation-report-8-16-november-2022>.
- IMF. “Belize: Staff Concluding Statement of the 2023 Article IV Mission.” Accessed March 19, 2023. <https://www.imf.org/en/News/Articles/2023/02/17/belize-staff-concluding-statement-of-the-2023-article-iv-mission>.
- Investopedia. “Green Bond: Types, How to Buy, and FAQs.” Accessed February 17, 2023. <https://www.investopedia.com/terms/g/green-bond.asp>.
- Jones, Marc. “Analysis: Belize Offers Ocean ‘blue’ Print with Debt-for-Reef Swap.” *Reuters*, November 5, 2021, sec. COP26. <https://www.reuters.com/business/cop/belize-offers-ocean-blue-print-with-debt-for-reef-swap-2021-11-0/>.
- Kolhatkar, Sheelah. “Paul Singer, Doomsday Investor.” *The New Yorker*, August 20, 2018. <https://www.newyorker.com/magazine/2018/08/27/paul-singer-doomsday-investor>.
- Kushner, Ronald, Wyley Neal, James Lee, and Berel Spivack. “Developing Country Debt: Debt Swaps for Development and Nature Provide Little Debt Relief.” Report to Congressional Requestors. United States General Accounting Office, December 1991. <https://www.gao.gov/assets/nsiad-92-14.pdf>.
- Loop News. “Belize Asks for Funds in the Aftermath of Hurricane Lisa | Loop Caribbean News.” Accessed March 20, 2023. <https://caribbean.loopnews.com/content/belize-asks-funds-aftermath-hurricane-lisa>.

- Macpherson, Anne. "The Economic History of Belize: From the 17th Century to Post-Independence." *Hispanic American Historical Review* 94, no. 3 (August 1, 2014): 496–98. <https://doi.org/10.1215/00182168-2694427>.
- Moody's.com. "Moody's Assigns a Definitive Aa2 Rating to Platinum's Blue Bonds for Belize Blue Investment Company; Outlook Stable," November 5, 2021. http://www.moody's.com:18000/research/Moodys-assigns-a-definitive-Aa2-rating-to-Platinums-Blue-Bonds--PR_457728.
- Munevar, Daniel. "Making Sense of Belize's Blue Bond Proposal." Eurodad, November 4, 2021. https://www.eurodad.org/making_sense_of_belize_blue_bond_proposal.
- OECD (2022), Green, social, sustainability and sustainability-linked bonds in developing countries: How can donors support public sector issuances? OECD Publishing, Paris.
- OECD. "Lessons Learnt from Experience with Debt-for-Environment Swaps in Economies in Transition." *OECD Papers* 7, no. 5 (November 14, 2007): 1–65. https://doi.org/10.1787/oecd_papers-v7-art15-en.
- O'Neill, Aaron. "Belize - Share of Economic Sectors in Gross Domestic Product 2021." Statista. Accessed February 21, 2023. <https://www.statista.com/statistics/727205/share-of-economic-sectors-in-the-gdp-in-belize/>.
- Owen, Nicholas. "Belize: Swapping Debt for Nature." IMF. Accessed February 16, 2023. <https://www.imf.org/en/News/Articles/2022/05/03/CF-Belize-swapping-debt-for-nature>.
- Post, Marilyn. "The Debt-for-Nature Swap: A Long-Term Investment for the Economic Stability of Less Developed Countries." *The International Lawyer* 24, no. 4 (1990): 1071–98.
- Prentice, Chris, and John Revill. "Credit Suisse to Pay \$475 Mln to Resolve Mozambican Scandal Charges." *Reuters*, October 20, 2021, sec. Business. <https://www.reuters.com/business/credit-suisse-pay-475-mln-resolve-charges-related-mozambican-bond-offerings-2021-10-19/>.
- Reinhart, Carmen M., and Christoph Trebesch. "Sovereign Debt Relief And Its Aftermath." *Journal of the European Economic Association* 14, no. 1 (February 1, 2016): 215–51. <https://doi.org/10.1111/jeea.12166>.
- Sachs, Harry Huizinga and Jeffrey D. "U.S. Commercial Banks and the Developing-Country Debt Crisis." *Brookings Institute* (blog), June 1, 1987. <https://www.brookings.edu/bpea-articles/u-s-commercial-banks-and-the-developing-country-debt-crisis/>.
- Selm, Tamon Asonuma, Michael G. Papaioannou, Eriko Togo, Bert Van. "Belize's 2016-17 Sovereign Debt Restructuring - Third Time Lucky?" IMF. Accessed March 5, 2023. <https://www.imf.org/en/Publications/WP/Issues/2018/05/22/Belize-s-2016-17-Sovereign-Debt-Restructuring-Third-Time-Lucky-45842>.
- Spencer, Bill. "Drug Certification." Institute for Policy Studies, September 1, 1998. https://ips-dc.org/drug_certification/.
- Spink, Christopher, and Miluska Berrospi. "Belize's Blue Bonds May Find Soggy Reception." IFRE. Accessed April 2, 2023. <https://www.ifre.com:443/story/3095390/belize-blue-bonds-may-find-soggy-reception-m13yygbpjv>.
- Standing, Andre. "Debt-for-Nature Swaps and the Oceans: The Belize Blue Bond." Coalition for Fair Fisheries Arrangements, March 15, 2022. <https://www.cffacape.org/publications-blog/debt-for-nature-swaps-and-the-oceans-the-belize-blue-bond>.

- Thapa, Brijesh. “Debt-for-Nature Swaps: An Overview.” *The International Journal of Sustainable Development & World Ecology*, June 2, 2009. <https://doi.org/10.1080/13504509809469990>.
- The Nature Conservancy. “The Nature Conservancy’s 2021 Annual Report.” Accessed March 25, 2023. <https://www.nature.org/en-us/about-us/who-we-are/accountability/annual-report/2021-annual-report/>.
- Torbati, Yeganeh. “How U.S. Sanctions Targeted a Belize Banana Farmer, and Hurt an Economy.” *Reuters*, August 16, 2016, sec. Business News. <https://www.reuters.com/article/us-usa-belize-sanctions-insight-idUKKCN10R0DF>.
- Tsuda, Tamon Asonuma, Gerardo Peraza, Kristine Vitola, Takahiro. “Sovereign Debt Restructurings in Belize: Achievements and Challenges Ahead.” IMF. Accessed March 3, 2023. <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Sovereign-Debt-Restructurings-in-Belize-Achievements-and-Challenges-Ahead-41775>.
- Visser, Dana R., and Guillermo A. Mendoza. “Debt-for-Nature Swaps in Latin America.” *Journal of Forestry* 92, no. 6 (June 1, 1994): 13–16. <https://doi.org/10.1093/jof/92.6.13>.
- Ysaguirre, William. “Oceana Belize Launches Anti-Oil Referendum.” *The Reporter*, November 17, 2022. <https://www.thereporter.bz/post/oceana-belize-launches-anti-oil-referendum>.
- White, Natasha. “Wall Street’s New ESG Money-Maker Promises Nature Conservation — With a Catch.” *Bloomberg*, January 12, 2023.
- Winters, Rachel. “The Nature Conservancy Partners with The Government of Belize to Conserve 30% of Its Ocean Through Debt Conversion.” *The Nature Conservancy*. Accessed March 13, 2023. <https://www.nature.org/en-us/newsroom/blue-bonds-belize-conserve-thirty-percent-of-ocean-through-debt-conversion/>.
- World Bank. “Climate Explainer: Green Bonds.” Accessed February 17, 2023. <https://www.worldbank.org/en/news/feature/2021/12/08/what-you-need-to-know-about-ifc-s-green-bond>.
- World Bank. “Debt Sustainability Analysis.” Text/HTML. Accessed April 2, 2023. <https://www.worldbank.org/en/programs/debt-toolkit/dsa>.
- Zettelmeyer, Jeromin, Marcos D. Chamon, Erik Klok, and Vimal V. Thakoor. “Debt-for-Climate Swaps: Analysis, Design, and Implementation.” IMF. Accessed February 19, 2023. <https://www.imf.org/en/Publications/WP/Issues/2022/08/11/Debt-for-Climate-Swaps-Analysis-Design-and-Implementation-522184>.