

Global Americans Report

**Strengthening Caribbean Forestry:
Challenges and Opportunities**

**High-Level Working Group
on U.S.-CARICOM Relations**

April 2024

**HIGH-LEVEL WORKING GROUP
ON U.S.-CARICOM RELATIONS**

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The members of the working group would like to thank Alejandro Trenchi, Jackson Mihm, and Robert Funk for their editorial, research, and writing assistance. All members of the working group take part in their personal capacity. Organizational affiliations are included for identification purposes only. This report was made possible by funding from the Open Society Foundations.

Executive Summary

This report examines the social, economic, and environmental role of forests within the Caribbean Community (CARICOM) member states. It discusses the nature of the challenges they face, as well as the regional risks associated with poor forest management, including security and human rights concerns. It also explores the role of the United States, one of the region's main international development partners, in supporting efforts to advance environmental objectives such as forest conservation, climate resilience, and related regional security challenges.

The following questions are addressed:

- What is the importance of forests for CARICOM's member states?
- What were the historical causes of deforestation in the region? What are the current causes?
- How does the world benefit from the region's forests?
- What are the main challenges to properly managing forests in the region?
- What are the threats? What are the regional implications?
- What actions are member states taking to address the challenges?
- How can international partners contribute to enhancing the management of forest resources, tackling the challenges, and minimizing threats?

Methodology and Findings

The paper is divided into three sections. The first analyzes the importance of forests in the region, as well as international cooperation efforts aimed at protecting forests, including the role of the United States. The second section provides an analysis of the threats and challenges confronting Caribbean forests, which encompass illegal economic activities, the impact of climate change, and the factors associated with institutional financial and technical limitations. The third and final section presents policy recommendations for concerned regional and external actors. To understand the differences and complexity of CARICOM's forests, the report analyzes separately the situation first in the Greater and Lesser Antilles, second Guyana and Suriname, located in South America, and third in Belize, located in Central America.

- *Greater and Lesser Antilles:* After decolonization, the region's land resources were broadly transformed from an agriculturally based economy to a tourism-based economy. The main challenges to protect forests are a lack of government capacity and limited human, technical and financial resources. The threats include the further expansion of tourism and the exacerbation of extreme weather events and changing rain patterns due to climate change.
- *Guyana and Suriname:* One of the major benefits of their forests is their ability to mitigate climate change by sequestering large amounts of carbon dioxide from the atmosphere. The main challenges to forest management and deriving optimal benefits from this natural resource are again a lack of government capacity and limited human, technical and financial resources, as well as the

- complicated legal rights of the Indigenous and Tribal peoples. Threats include climate change itself, the presence and activities of international, as well as cross border and national, criminal networks.
- *Belize*: Since 1981, Belize experienced a sweeping deforestation process largely driven by agricultural production. Challenges are limited government capacity, as well as poor border security, and a lack of financial, human and technical resources. Threats include climate change and extreme weather events, formal and informal logging and agricultural production, human trafficking, illegal logging, and wildlife trafficking.
 - *International Cooperation Efforts*: The international community has developed comprehensive programs to help countries reduce deforestation and environmental degradation. The United States plays an important role in supporting efforts to advance environmental objectives such as forest conservation, climate resilience, and addressing regional security challenges. The US-Caribbean Partnership to address the Climate Crisis (PACC 2030) has the potential to be a game changer in terms of forging closer and deeper public and private sector cooperation linkages between the US and CARICOM.

Recommendations and Conclusion

Given the importance of forests as providers of essential ecosystem services as well as their economic value and role, it remains imperative for CARICOM member states to implement a series of policies aimed at supporting conservation efforts and addressing institutional challenges to help combat the threat of deforestation. Additionally, these efforts must take into account illegal economic activities and combating transnational organized crime. The United States, the United Nations, and the World Bank, among other international actors, can play a decisive role. The following are our recommendations that will be more fully elaborated upon in the text of the report.

- Supporting conservation efforts:
 - Increase the number and acreage of protected areas;
 - Ensure the proper governance and management of protected areas;
 - Deeper engagement with Indigenous and Tribal peoples and civil society organizations to clarify ownership and land usage rights; and
 - Promote innovative financing strategies such as the carbon credit market and payments for environmental services.
- Addressing challenges and threats:
 - Combat illegal economic activities and secure borders;
 - Strengthen good governance and the rule of law;
 - Include in PACC 2030 and the Caribbean Basin Security Initiative (CBSI) a pillar on forest management as well as illegal economic activities and environmental crimes;
 - Promote sustainable tourism practices; and
 - Deepen international climate cooperation.

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1. Introduction

Amid the global climate crisis, the responsible management of forest resources is more important than ever. Acting as a carbon storage bank, forests absorb significant amounts of carbon dioxide from the atmosphere, stabilizing the climate and lessening the impacts of climate change.¹ Healthy forests are essential in meeting environmental needs such as clean air, water supply, wildlife habitats, as well as offering economic opportunities for local populations. Poor management can result in the destruction of forests, which further contributes to climate change.

The forests of CARICOM encompass a land mass of 463,000 km², equal to the size of the U.S. state of California and one percent of the world's total forested area.² While the Caribbean is usually associated with coastal ecosystems, it is also replete with unique tropical and subtropical moist forests, montane cloud forests, dry forests, as well as dry limestone forests, making it a global biodiversity hotspot.³ Traditionally, Caribbean forests have been used as a land reserve for agriculture and logging, as well as to providing drinking water, clean air, and energy sources. Different historical, economic, and environmental circumstances have made their mark on the Caribbean's forests. While Haiti has suffered massive damage from deforestation—pushed by an outdated agricultural system—Guyana and Suriname are considered among the world's greenest and most forested countries.

A set of challenges complicates CARICOM countries' forestry policies. Institutional weakness and the lack of financial resources and technical capacity often undermine important efforts to implement and monitor conservation initiatives, prompting the emergence of illegal economic activities. International and national criminal organizations have engaged in illegal mining, illegal logging, and drug trafficking, posing a significant threat to the well-being of vulnerable communities, the environment, and regional and hemispheric security.

In Guyana and Suriname, the expansion of illegal mining has not only led to an increase in the use of mercury smuggled from China but has also fostered associated crimes such as money laundering and human trafficking.⁴ In Belize, the remoteness of the forested terrain and the lack of resources to adequately police the border have offered

¹ EPA, "Climate Change Impact on Forest: Overview." <https://www.epa.gov/climateimpacts/climate-change-impacts-forests#:~:text=Forests%20are%20a%20critical%20part,to%20offset%20fossil%20fuel%20emissions>.

² FAO, "Forestry in Regional Economic Groups: Caribbean Community and Common Market (CARICOM)." <https://www.fao.org/3/w9950e/w9950e20.htm#:~:text=The%20CARICOM%20countries%20account%20for,moderate%20to%20low%20forest%20cover>

³ UWI Biological Society, "The Marvelous and Multifaceted Forests of the Caribbean," CARI-BOIS, 2021 <https://www.caribois.org/2021/03/the-marvelous-and-multifaceted-forests-of-the-caribbean/>

⁴ Organization of American States, "On the trail of illicit gold proceeds" strengthening the fight against illegal mining finances: Suriname," 2023. <https://www.oas.org/en/sms/dtoc/docs/suriname-eng-digital.pdf>; Organization of American States, "Typologies and Red Flags Associated to Money Laundering from Illegal Mining in Latin America and the Caribbean," 2022. <https://www.oas.org/en/sms/dtoc/docs/DOC-TYPOLOGIES-AND-RED-FLAGS-ILLEGAL-MINING-ENG.pdf>

transnational criminal organizations a safe haven in the Guatemala-Belize border zone. In the Caribbean islands, legitimate business development interests associated with the lucrative tourism industry, such as coast development, as well as extreme weather events exacerbated by climate change, have led to the degradation of their unique dry forests.

CARICOM member states are sensitive to these issues, as forest management has become an important policy issue, closely interwoven with climate change and long-term sustainable development. The equation is simple—good forest management is an investment for the future at a time when many climate change trends are heading in the wrong direction.

Table 1. Total forest area (% of land area) CARICOM member states

Country	1991	2001	2011	2021
Antigua & Barbuda	22.8	21.3	19.8	18.3
The Bahamas	50.9	50.9	50.9	50.9
Barbados	14.7	14.7	14.7	14.7
Belize	69.5	63.7	60.5	55.5
Dominica	66.8	63.8	63.8	63.8
Grenada	52.1	52.1	52.1	52.1
Guyana	94.5	94.3	94.0	93.5
Haiti	13.9	13.8	13.6	12.5
Jamaica	48.1	48.5	51.6	55.5
Saint Kitts and Nevis	42.3	42.3	42.3	42.3
Saint Lucia	34.8	34.4	34.0	34.0
Saint Vincent and the Grenadines	70.9	73.2	73.2	73.2
Suriname	98.6	98.3	98	97.3
Trinidad & Tobago	47.1	46	45.2	44.4

Source: The World Bank⁵

⁵ World Bank, “Forest area (% of land area) – Latin America & the Caribbean.”
<https://data.worldbank.org/indicator/AG.LND.FRST.ZS?locations=ZJ>

2. Caribbean Forests Details and Uses

2.1 Greater and Lesser Antilles

Caribbean islands were heavily forested before European settlement. With the widespread application of plantation agriculture starting in the sixteenth century, driven by the production of sugar and profits for European metropolises, a long and sustained process of deforestation began. Sugar production, among other cash crops such as cotton and tobacco, became the most lucrative and labor-intensive business. While plantation agriculture spread in the following two centuries, forest degradation worsened through the elimination of woodlands for fuel and construction of new settlements. In the Eastern Caribbean, pressure on forests continued through the 1970s and 1980s due to the emphasis placed on new agricultural exports, most notably bananas. According to assessments, most of the Eastern Caribbean's Forest cover was lost to agricultural production, with less than 10 percent of the original vegetation still in a pristine state.⁶

The onset of decolonization, successive migration waves beginning in the 1950s, as well as the expansion of the tourism industry in the 1990s, completely transformed the region's land resources.⁷ While rural communities started to abandon agricultural lands for better economic opportunities in urban centers and abroad, novel mixed forests with both native and introduced flora, spread across the region, leading to what scientists have described as the greening of the Caribbean islands.⁸ For example, Saint Lucia, like many other Eastern Caribbean countries including Saint Kitts and Nevis and Saint Vincent and the Grenadines, deeply impacted by post-war migration waves to the United Kingdom and North America and by the end of preferential treatment for agricultural products, experienced a dramatic land transformation. Upland forests witnessed a sweeping reforestation process and lower lands and natural forests near the coast were mostly transformed into peri-urban suburbs. A construction boom, including the development of new homes and tourism-related infrastructure, reconfigured the region's land and economy. Today, Saint Lucia has 34.0 percent of its land forested, Saint Kitts and Nevis 42.3 percent, and Saint Vincent and the Grenadines 73.2 percent. With the collapse of the agricultural sector in the 1980s, tourism became the region's main economic driver, accounting for 13.9 percent of the regional GDP as well as 15 percent of workforce in 2022.⁹

Other Eastern Caribbean countries such as Barbados and Antigua and Barbuda, two low-lying island nations, have remained heavily deforested. Barbados was among the

⁶ David C. Wege, Doug Ryan, Nigel Varty, Verónica Anadón-Irizarry, Amiro Pérez-Leroux, "The Caribbean Islands Biodiversity Hotspot," *BridLife International*, 2010.

https://www.cepf.net/sites/default/files/final_caribbean_ep.pdf

⁷ Bradley B. Walters, "Migration, land use and forest change in St. Lucia, West Indies," *Land Use Policy*, 2015. <https://www.sciencedirect.com/science/article/abs/pii/S0264837715003889>

⁸ <https://www.fao.org/3/i4220e/i4220e.pdf>; Nicole Leotaud and Claus Eckelmann, "Participatory Forest Management in the Caribbean," *Caribbean Natural Resources Institute (CANARI)*, 2014.

<https://canari.org/publications/participatory-forest-management-in-the-caribbean/>

⁹ World Travel & Tourism Council, "Travel & Tourism in the Caribbean: Prospects for Growth," 2022.

<https://wtcc.org/Portals/0/Documents/Reports/2022/Travel-and-tourism-in-the-caribbean.pdf>

most impacted by plantation agriculture.¹⁰ Until tourism took over as the main economic sector in recent decades, intensive sugar cane production throughout the seventeenth, eighteenth, and nineteenth centuries destroyed its pristine forests, fueling soil erosion, and eradicating most of the native flora and fauna.¹¹ Likewise, Antigua and Barbuda's natural vegetation was mostly replaced by sugar cane and cotton production.¹² Today, Barbados with 14.7 percent and Antigua and Barbuda with 18.3 of its land covered by forest are among least forested countries in the Caribbean.¹³

Nonetheless, the most paradigmatic case of deforestation within CARICOM countries remains Haiti. With almost half of its workforce still employed in the agricultural sector, it is the most dependent country on agriculture, forestry, and fisheries in the region, accounting for 20.3 percent of its GDP. Poor land use practices and lack of economic opportunities have led to unsustainable agricultural practices resulting in widespread deforestation.¹⁴ A 2018 study noted that with less than one percent of its original primary forests, Haiti will lose all its primary forest by the late 2030s, leading to the extinction of its rich and unique biodiversity. According to the World Bank's 2018 National Assessment of Charcoal Production and Consumption Trends, even though the production of charcoal is often regarded as the main cause of deforestation, Haiti's primary forest was destroyed during the colonial era due to agricultural production. In addition, during the post-independence war period, the Haitian government had to sign contracts with logging concessionaires to pay compensation to France, which further contributed to forest destruction.¹⁵ With 12.5 percent of its forest cover, Haiti is the least forested country in the Caribbean and the Western Hemisphere.¹⁶

Despite centuries of agricultural pressure and unsustainable practices, Caribbean islands, from the Greater and the Lesser Antilles to the Lucayan Archipelago and the Cayman Islands, continue to harbor unique ecosystems with high levels of endemic and diverse species. Terrestrial habitats contain 12,847 native and introduced flora species—including approximately 8,000 vascular species—as well as 1,342 terrestrial vertebrates. Healthy forests contribute significantly to the region's ecosystems and economies, especially by providing food and fuel, as well as filtering water, controlling erosion, and acting as a source of income to often disconnected rural communities. Though most of these ecological services are not valued in a traditional market sense, some countries are starting to assess the real economic impact forests provide to their countries and the

¹⁰ UNESCO, "The Industrial Heritage of Barbados: The Story of Sugar and Rum."

<https://whc.unesco.org/en/tentativelists/5942/>

¹¹ Convention on Biological Diversity, "Barbados - Main Details."

<https://www.cbd.int/countries/profile/?country=bb>

¹² Convention on Biological Diversity, "Antigua and Barbados - Main Details."

<https://www.cbd.int/countries/profile/?country=ag>

¹³ World Bank, "Forest area (% of land area) – Latin America & the Caribbean."

¹⁴ USAID, "USAID/HAITI: Reforestation & Agroforestry – Fact Sheet," 2020.

https://www.usaid.gov/sites/default/files/2022-05/USAID_Haiti_Reforestation_Fact_Sheet_-_January_2020.pdf

¹⁵ World Bank, "Charcoal in Haiti: A National Assessment of Charcoal Production and Consumption Trends," 2018. <https://www.profor.info/sites/profor.info/files/134058-CharcoalHaitiWeb.pdf>

¹⁶ World Bank, "Forest area (% of land area) – Latin America & the Caribbean, Haiti."

<https://data.worldbank.org/indicator/AG.LND.FRST.ZS?locations=ZJ-HT>

world. In Dominica, for example, 63.8 percent of its area is covered by forests, which indirectly sustain up to 20 percent of the country's workforce, including the Kalinago people—the last Indigenous people of the Eastern Caribbean.²

Timber, firewood, and non-timber products represent important commodities for export, meeting energy demands, as well as to produce vines and herbs used for traditional handicrafts and bush medicine.¹⁷ In addition, valuable minerals such as bauxite, a sedimentary rock used to manufacture aluminum, are found beneath the region's forests. Jamaica with 2 million tons exported annually, is home of one of the largest reserves of bauxite in the world. Accounting for 2.2 percent of the country's GDP, the mining sector employs over 6,000 workers.¹⁸ According to the United States Geological Survey (USGS) for the period 2017-2020, 62 percent of U.S. bauxite imports came from Jamaica.¹⁹ Most bauxite reserves are located in the western and central parishes of the island, including in Saint Elizabeth—a highly biodiverse region home of the historically important Accompong Maroon village.²⁰

Though coastal areas remain the region's primary tourist attractions, nature-based tourism is considered one of the fastest-growing sectors in the region.²¹ Jamaica's Cockpit Country, an area located in the northeastern parish of Trelawny, is home to the country's largest limestone rainforest. The forest is not only the source of 40 percent of Western Jamaica's water needs but also is providing income opportunities to local communities by encouraging visitors to appreciate and learn about their unique ecology.²² In addition, national parks such as Jamaica's Blue and John Crow Mountains or Grenada's Grand Estang National Park and Forest Reserve host thousands of tourists every year. Trinidad and Tobago's Main Ridge Forest Reserve, the world's oldest legally protected forest reserve for conservation efforts, receives approximately 15,000 tourists per year.²³

Given the importance of forests amid the current climate crisis and the complexities associated with their administration, to date, most Caribbean countries have developed a combination of plans, program documents, and related policies that guide their operational management, use, and development such as Jamaica, Trinidad and Tobago, and Dominica.²⁴ For example, Dominica, one of the most forested countries in the Eastern Caribbean, in collaboration with the World Bank and in consultation with cross sectoral partners including the private sector, the Kalinago people, and

¹⁷ Nicole Leotaud and Claus Eckelmann, "Participatory Forest Management in the Caribbean,"

¹⁸ Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, "IGF Mining Policy Framework Assessment: Jamaica," 2020. <https://www.iisd.org/system/files/publications/jamaica-mining-policy-framework-assessment-en.pdf>

¹⁹ E. Lee Bray, "Bauxite and Alumina," United States Geological Survey (USGS), 2022. <https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-bauxite-alumina.pdf>

²⁰ Gladston Taylorm "Jamaica's 'Cockpit Country' Faces Growing Threats from Mining Interes," Earth Island Journal, 2022. <https://www.earthisland.org/journal/index.php/articles/entry/jamaicas-cockpit-country-faces-growing-threats-from-mining-interests/>

²¹ Nicole Leotaud and Claus Eckelmann, "Participatory Forest Management in the Caribbean," Caribbean Natural Resources Institute (CANARI),

²² Caribbean Natural Resources Institute (CANARI), 2023. https://canari.org/wp-content/uploads/2023/06/STEA-Article_29.06.2023.pdf

²³ UNESCO, "Tobago Main Ridge Forest Reserve: Description," <https://whc.unesco.org/en/tentativelists/5646/>

²⁴ <https://www.fao.org/3/i4220e/i4220e.pdf>

environmental NGOs, updated its National Forest Policy in 2022. Under the new policy, the country's Forestry, Wildlife and Parks Division is mandated to force legislation and guide the conservation, protection, management, and sustainable development of the forests. The policy objectives are to maintain or enhance the biodiversity and ecological functioning of the forests; increase the area of land covered by forests and other forest vegetation types; and optimize the contribution of forest resources to livelihoods and to the economy.²⁵

2.2 Guyana and Suriname

Today, most of CARICOM's surviving pristine forests are located in Guyana and Suriname. Indeed, these countries form the backbone of the Guiana Shield—a highly biodiverse and mineral-rich ecoregion in the northeastern Amazon Forest. As such, Guyana with 93.5 percent of its territory covered by forests and Suriname with 97.3 percent, are considered among the world's greenest countries.²⁶ It is estimated that Guyanese forests, including its rainforests, montane forests, swamp and marsh, dry evergreen, as well as mangrove forests, provide habitats to around 1,815 animal species and to over 8,000 native flora species, of which approximately 1,500 remain unidentified.²⁷ Likewise, Suriname hosts thousands of ferns and seed plants species as well as important number of mosses, weeds, and mildews. UNESCO designated the Central Suriname Natural Reserve as a World Heritage site in 2000. Spanning some 1.5 million hectares, it is one of the largest protected rainforests in the world, supporting approximately 5,000 vascular plant species and numerous mammals, birds, and reptiles including the Guiana Cock-of-the-Rock, Giant Armadillo, and Boa Constrictor. ²⁸

Besides offering a habitat to diverse and endemic species, forests provide both of CARICOM's South American states with a wide range of environmental, economic, and social benefits. One of the major benefits of Guyana's and Suriname's forests is its ability to mitigate climate change by sequestering large amounts of carbon dioxide from the atmosphere and transforming it into biomass through photosynthesis.²⁹ According to Guyana's Low Carbon Development Strategy (LCDS) 2030, it is estimated that the country's forests store a total of 19.5 gigatons of carbon dioxide. Per year, this means removing some 154 million tons of carbon dioxide emissions—the equivalent of 17 million tons from household energy consumption.³⁰ In economic terms, the estimated value that Guyana's forest eco-systems services provide the world, including carbon sequestration, is up to USD 5.4 billion annually.³¹ Given the country's booming oil and gas sector, with projections of becoming the world's fourth largest offshore oil producer with 1.2 million barrels per day by 2027, the Guyanese government has given its forests a prominent role

²⁵ The Commonwealth of Dominica, "National Forest Policy," March 2022.

<https://documents1.worldbank.org/curated/en/099516008082214354/pdf/IDUood363cbfoaf2a044300b30b0fa5e5b97be81.pdf>

²⁶ World Bank, "Forest area (% of land area) – Latin America & the Caribbean, Guyana and Suriname."

²⁷ Convention on Biological Diversity, "Guyana - Main Details

<https://www.cbd.int/countries/profile/?country=gy>

²⁸ UNESCO, "Central Suriname Nature Reserve." <https://whc.unesco.org/en/list/1017/>

²⁹ UNECE, "Carbon Sink and Sequestration." <https://unece.org/forests/carbon-sinks-and-sequestration>

³⁰ OILNOW, "Low Content Development Strategy -LCDS." <https://oilnow.gy/lclds/>

³¹ Ibid.

in the country's development strategy. The government's intention is to maintain its position as a net-zero economy, by prioritizing forest conservation, including a pledge to keep deforestation rates at 90 percent below the global average, along with regrowing about 200,000 hectares of forests, restoring mangroves, as well as selling carbon credits and investing in low-carbon energy and transportation.³²

Similarly, the Surinamese government considers that forests play a significant role in its national development and economic strategy. With their ability to store approximately 11 billion gigatons of carbon dioxide—the equivalent carbon dioxide emission of around 23 billion barrels of oil consumed—Suriname's forests not only help mitigate climate change but also provide economic opportunities to rural communities and strengthen conservation efforts.³³ By becoming the first country to sell carbon credits under the new Paris Agreement, also known as internationally transferred mitigation outcomes, Suriname aims to raise millions of dollars to fund conservation efforts to fight deforestation including employing local workers to police the forests, build flood-resistant infrastructure, help adapt agriculture to climate change, and curtail illegal logging and gold mining.³⁴

Although the agriculture and fisheries sectors are crucial to guaranteeing Guyanese and Surinamese food security, similar to what happened in the Caribbean islands, the relative economic importance of these industries has declined steadily since the 1990s. For example, while in the mid-1990s agribusiness and fisheries represented 18 percent of Suriname's GDP, in 2018 they accounted for approximately 9 percent. Rice, bananas, vegetables, plantains, citrus, fruits, and cassava are Suriname's main agricultural products.³⁵ With over 1000 tree species Guyana's forestry industry accounts for approximately 3.0 percent of GDP and employs approximately 20,000 people, mainly in rural and hinterland areas.³⁶ As Guyana's remains one of the fastest growing economies in the world with double-digit growth rates in 2023 and 2024, it is expected that higher forestry output will be needed to meet public and private sector construction activity.³⁷

³² Ibid.

³³ EPA, "Greenhouse Gas Equivalencies Calculator." <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>; UNDP, "Suriname and the Paris Agreement," 2019. https://climatepromise.undp.org/sites/default/files/research_report_document/undp-ndcsp-indc-project-actions-and-impacts-suriname.pdf

³⁴ Jake Spring, "Suriname seeks \$30 per credit in first Paris Agreement carbon sale, minister says," Reuters, 2023. <https://www.reuters.com/sustainability/sustainable-finance-reporting/suriname-seeks-30-per-credit-first-paris-agreement-carbon-sale-minister-2023-10-10/>

³⁵ Margot Vandorpe, Carmine Paolo De Salvo, and Olga Shik, "Analysis of Agricultural and Fishery Policies and Agriculture-related Greenhouse Gases Emissions in Suriname," Inter-American Development Bank (IDB), 2020. <https://publications.iadb.org/en/analysis-agricultural-and-fishery-policies-and-agriculture-related-greenhouse-gases-emissions>

³⁶ Government of Guyana, "Guyana Investment Opportunities Forestry." https://capacity4dev.europa.eu/media/254051/download/c7fee66b-b694-468b-887b-11cbcbf9eb52_en

³⁷ Government of Guyana, "Forestry." <https://guyanainvest.gov.gy/portfolio/forestry-products/>; EPA, "Greenhouse Gas Equivalencies Calculator." <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>

Unlike the Caribbean islands, Suriname and Guyana do not have a competitive tourism industry, instead they remain heavily dependent on the mining sector. In Suriname, with gold accounting for more than 80 percent of total exports, mining represents an undisputed economic driver.³⁸ The Merian mine, one the largest gold mines located in the highly biodiverse Sipaliwini district is owned and operated by Surgold—a U.S.-based Newmont Mining Corporation subsidiary.³⁹ According to a recent report from the Organization of American States (OAS), approximately 60 percent of the country’s gold comes from artisan and small-scale gold mining, employing approximately 40,000 workers including Indigenous and Tribal peoples, as well as migrants from Brazil and China.⁴⁰ Similarly, Guyana’s mining sector accounts for 16 percent of the country’s GDP and employs an estimated of 12,000 to 18,000 people (or 4 to 5 percent of the total workforce.)⁴¹ Primarily located in the country’s northern forests, the sector has traditionally focused on gold, diamonds, bauxite, stone as well as other quarriable materials such as sand and loam. Gold production represented 8.8 percent of the national economic output—the country’s third largest non-oil sector and over 60 percent of the non-oil export earnings in 2021.⁴²

Given the importance of the forests, both Suriname and Guyana are signatories of the 1978 Amazon Cooperation Treaty (ACT) and have developed comprehensive legislation over the decades to govern their forests. Since signing the Treaty, these countries have reformed aspects of land ownership, regulation of agricultural and timber production, as well as mining activities. Guyana’s latest National Forest Policy, which is in force from 2018 to 2028, has a stated objective of “the conservation, protection, and utilization of the state’s forest, by ensuring its social, economic, and environmental attributes and benefits are sustained and enhanced for the benefit of current and future generations of Guyanese.”⁴³ The Guyana Forestry Commission (GFC) is the main agency responsible for ensuring the country’s forest resources are sustainably managed and conserved, with the GFC directly controlling 86.2 percent of Guyana’s forests. Additionally, Indigenous Peoples, who represent the largest private owners of the country’s forests (13.8 percent) have a prominent role in the implementation of the

³⁸ World Bank, “Suriname At-A-Glance.”

<https://www.worldbank.org/en/country/suriname#:~:text=Suriname%20At%2DA%2DGlance&text=The%20economy%20is%20driven%20by%20its%20abundant%20natural%20resources%2C%20with,80%20percent%20of%20total%20exports>

³⁹ Government of Canada, “Mining Market in Suriname.”

<https://www.tradecommissioner.gc.ca/guyana/market-reports-etudes-de-marches/0006667.aspx?lang=eng>

⁴⁰ Organization of American States (OAS), “On the Trail of Illicit Gold Proceeds: Strengthening the Fight Against Illegal Mining Finances: Suriname’s case,” 2023.

<https://www.oas.org/en/sms/dtoc/docs/suriname-eng-digital.pdf>

⁴¹ United States International Trade Administration, “Guyana – Country Commercial Guide.”

<https://www.trade.gov/country-commercial-guides/guyana-mining-and-minerals-sector>

⁴² Government of Canada, “Mining Market in Guyana.”

<https://www.tradecommissioner.gc.ca/guyana/market-reports-etudes-de-marches/0006665.aspx?lang=eng>

⁴³ Cooperative Republic of Guyana, “Revised National Forest Policy Statement 2018.”

<https://forestry.gov.gy/wp-content/uploads/2021/01/Guyana-National-Forest-Policy-Statement-2018.pdf>

National Forest Policy.⁴⁴ The Iwokrama International Centre (IIC)—a world-class non-profit organization established in 1996 under a joint mandate from the Government of Guyana and the Commonwealth Secretariat—plays a leading role in advancing research to enhance sustainable development, including ecotourism and sustainable forestry practices. The IIC manages the Iwokrama forests, a reserve of 371,000 hectares of rainforests (1.6 percent of Guyana’s landmass and 2 percent of Guyana forests.)⁴⁵

In Guyana, Indigenous peoples—also identified as Amerindian—make up 10 percent of the country’s population. In total, nine Amerindian groups live across the country. Guyana’s 1980 Constitution as well as the Amerindian Act of 2006, provided recognition and protection of the collective rights of Amerindian Villages and Communities, granting the right to land, security, self-governance.⁴⁶ However, disputes over mining concessions granted by the government on Amerindian lands as well as pollution and deforestation from artisan gold mining continue to be major concerns.⁴⁷ The National Toshias Council (NTC)—mandated to represent Guyana’s Indigenous Peoples—has been at the forefront of promoting their traditional knowledge of biodiversity and the environment to safeguard the country’s forests.⁴⁸ However, despite having legislation that protects the rights of the indigenous community, the Guyanese government has the authority to override village councils rules when issuing mining concessions. This has led to disputes over land rights between the government and the Amerindian People’s Association.⁴⁹

Suriname’s National Forest Policy which dates back to 2006 aims to “enhance the contribution of the forests to the national economy and the welfare of the current and future generations, taking into account the preservation of the biodiversity.”⁵⁰ Suriname’s National Forest Service is the country’s leading agency in managing all forests. Unlike Guyana, Suriname does not recognize Indigenous and Tribal peoples’ right to land. Indeed, Suriname is the only country in the western hemisphere that does not recognize any rights to its Indigenous and Tribal peoples. Given the importance of natural resources, including oil, bauxite, and oil, to the country’s economy, the lack of land rights represents a significant threat to their survival and well-being.⁵¹ Much of this population lives in the country’s vast forested interior, a place where nearly 90 percent of Suriname’s natural resources are located. The gold mining industry has been their main antagonist. Not only has it polluted their lands and seriously impacted their health, but they have also

⁴⁴ Ibid; TimberTrade Portal, “Guyana.” <https://www.timbertradeportal.com/en/guyana/54/country-context>

⁴⁵ Iwokrama International Centre for Rainforest Conservation and Development, “About Us,” <https://iwokrama.org/about-us/>

⁴⁶ Laws of Guyana, “Amerindian Act”, 2006. <https://faolex.fao.org/docs/pdf/guy81428.pdf>

⁴⁷ Janette Bulkan and John Palmer, “Indigenous peoples in Guyana”, IWGIA, 2023. <https://www.iwgia.org/en/guyana/5094-iw-2023-guyana.html>

⁴⁸ UNESCO, “Listening to the voices of indigenous peoples is the only way to protect people and planet – Spotlight on Guyana,” 2021. <https://www.unesco.org/en/articles/listening-voices-indigenous-peoples-only-way-protect-people-and-planet-spotlight-guyana>

⁴⁹ U.S. Department of State, “2022 Country Report on Human Rights Practices: Guyana.” <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/guyana/>

⁵⁰ Ministry of Natural Resources and The Foundation for Forest Management and Production Control, “National Forest Policy of Suriname.” <https://faolex.fao.org/docs/pdf/sur148216.pdf>

⁵¹ Max Ooft, “Indigenous peoples in Suriname,” IWGIA, 2023. <https://www.iwgia.org/en/suriname.html>

not received any compensation for the exploitation of their lands. This has further marginalized and rendered Suriname's indigenous and tribal peoples one of the most vulnerable communities of Suriname.⁵²

2.3 Belize

Belize's forests are part of the Mayan Forest—the largest contiguous block of rainforest north of the Amazon. The Mayan Forest is characterized by tall and diverse broadleaf forests, secondary pine forests, low woodlands, and mangroves.⁵³ Unlike the Caribbean islands and Guyana and Suriname, Belize, since its independence in 1981, experienced a sweeping deforestation process largely driven by agricultural production. In fact, from 1990 to 2022, according to the World Bank, Belize is the country among the CARICOM member states that has lost the most forest area. While in 1990, the country had 70.1 percent of its territory covered by forests, in 2021, it had 55.5 percent. Likewise, data from Global Forest Watch shows that from 2002 to 2022, Belize's total area of humid primary forest decreased by 12 percent.

According to Belize's Ministry of Agriculture, the agriculture and food sector is one of the country's main economic pillars, contributing approximately 13 percent of GDP and employing nearly 18 percent of the workforce. The sector accounts for 65 percent of Belize's total exports and is based mainly on the production of traditional commodities such as sugar, bananas, citrus, fish products, rice, timber, as well as meat and dairy products.⁵⁴ Similar to the Caribbean islands, tourism represents a significant economic driver here. According to Belize's Chamber of Commerce and Industry, tourism is the number one foreign exchange earner for the country's economy, contributing approximately 15 percent of GDP in 2017, with a total contribution, indirect and direct, of 41.3 percent of GDP.⁵⁵ Besides its Caribbean Sea coast, with its mahogany and gum tree species and ancient Mayan stone ruins, its forests are one of the country's natural treasures.⁵⁶

Belize's forests are also home to various Mayan and Garifuna communities, which rely heavily on forest resources to sustain their livelihoods. Given the negative deforestation trends, in 2015 the Government of Belize enacted a new National Forest Policy aimed to strengthen the management, conservation, and sustainable development of the country's forests. In particular, to make agriculture and forestry more productive

⁵² Ine Apapoe, "Maroons and Indigenous people in Suriname: the struggle for land rights," Global Americans, December 2020. <https://theglobalamericans.org/2020/12/maroonsand-indigenous-people-in-suriname-the-struggle-forland-rights/>.

⁵³ Timothy Godoy, "Brief Description of the Forest Resources of Belize," Forestry Department Belize. <https://www.fao.org/3/ad102s/AD102S05.htm>

⁵⁴ Ministry of Agriculture, "National Agriculture and Food Policy in Belize," 2015. <https://www.agriculture.gov.bz/wp-content/uploads/2017/05/National-Agriculture-and-Food-Policy-of-Belize-2015-2030.pdf>

⁵⁵ Julian T.S. Chow, Tourism in Belize: Ensuring Sustainable Development Growth <https://www.imf.org/-/media/Files/Publications/WP/2019/wp19267-print-pdf.ashx>;

⁵⁶ The Nature Conservancy, "Protecting the "Jewel" of Central America," 2021. <https://www.nature.org/en-us/what-we-do/our-insights/perspectives/protecting-belize-maya-forest-biodiversity-climate/>

and sustainable it seeks to implement a series of strategies including to “promote land usage and planning which contributes to the establishment and maintenance of forests for timber, biodiversity and ecological services, and forest connectivity with emphasis on abandoned and degraded lands, urban areas and agricultural lands,” as well as to “promote reforestation/afforestation and forest rehabilitation to increase the forest density for timber and carbon capturing capacity.”⁵⁷

3. International Mechanisms and Cooperation

Given the need to protect the world’s forests amid the climate crisis, the international community has developed comprehensive programs to help countries reduce deforestation and environmental degradation. Among these, the leading mechanisms are the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) and REDD+. REDD-UN, launched in 2008, is considered a United Nations knowledge and advisory platform on forest solutions to the climate crisis.⁵⁸ With 65 partner countries worldwide, among CARICOM member states, Guyana, Jamaica, and Suriname are the only partners. UN-REDD seeks to foster carbon sequestration by promoting environmental integrity of carbon emission reductions while supporting non-carbon benefits from safeguarding biodiversity to supporting livelihoods and promoting the rights of Indigenous peoples. UN-REDD helps implement Articles five and six of the Paris Agreement:

“Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.” (Article 5)⁵⁹

REDD+, adopted in 2013, is a voluntary climate mitigation solution developed by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) that seeks to stop deforestation and forest degradation as well as to enhance conservation, sustainable management, and forests’ role as carbon sinks. Worldwide, since its creation,

⁵⁷ Government of Belize, “National Forest Policy,” 2015.
<https://www.fao.org/faolex/results/details/en/c/LEX-FAOC149121/#:~:text=The%20specific%20objectives%20of%20the,all%20stakeholders%20in%20the%20planning>

⁵⁸ <https://www.un-redd.org/about/programme>

⁵⁹ United Nations, “Paris Agreement,” 2015.
https://unfccc.int/sites/default/files/english_paris_agreement.pdf

REDD+ has mobilized USD 350 million in results-based payments for verified emissions—a reward system for individuals or communities for undertaking actions to increase carbon sequestration.⁶⁰ Through REDD+ readiness, countries receive bilateral and multilateral to support REDD+ related areas of work including governance, stakeholder engagement, developing a REDD+ national strategy/action plan, as well as developing a forests emission reference level and a national forest monitoring system.⁶¹ For example, Suriname’s REDD+ national strategy aims to promote forest governance, including advancing the participation of different stakeholders, as well as enforcing, controlling and monitoring. Additionally, it seeks to strengthen land use planning, the conservation of forest and reforestation, and channel financial support for the preservation of Suriname’s forest and the country’s economic diversification.⁶²

In addition to UN-led cooperative efforts, similar international mechanisms have been established to safeguard forests and prevent deforestation and forest degradation. Among these is the World Bank-administered Forest Carbon Partnership Facility.⁶³ The Facility works as an international alliance of governments, businesses, civil society, and Indigenous peoples’ organizations focused on reducing emissions from deforestation, as well as strengthening forest stock conservation, the sustainable management of forests, and enhancing carbon forests stocks.⁶⁴

The U.S., as one of CARICOM’s main development parents, can play a decisive role in supporting efforts to advance environmental objectives such as forest conservation, climate resilience, and addressing regional security challenges. Under the PAC 2030 and CBSI, the U.S. has led important cooperation initiatives. For CBSI, considered one of the main regional initiatives of U.S. assistance in the Latin America and Caribbean region, the administration requested USD 64.5 million in the fiscal year 2024, USD 15.5 million (19.4 percent) less than the fiscal year 2022 allocation.⁶⁵

Since 2009, CBSI has targeted U.S. assistance in five areas: maritime and aerial security cooperation, law enforcement capacity building, border/port security and firearms interdiction, justice sector reform, and crime prevention and at-risk youth.⁶⁶ The U.S. Agency for International Development (USAID) has been at the forefront of cooperation efforts in the region. The Caribbean Agricultural Improvement and Production Activity (CAIPA) aims to promote sustainable agricultural practices, increase

⁶⁰ United Nations, “UN-REDD Programme Fact Sheet,” 2021. <https://www.un-redd.org/sites/default/files/2021-10/Fact%20Sheet%201-%20About%20REDD3.pdf>

⁶¹ Ibid.

⁶² Government of Suriname, “National REDD+ Strategy of Suriname,” 2019. https://redd.unfccc.int/media/national_redd_strategy_of_suriname_en_web.pdf

⁶³ Forest Carbon Partnership, “About”, <https://www.forestcarbonpartnership.org/>

⁶⁴ Ibid.

⁶⁵ Peter J. Meyer, “U.S. Foreign Assistance to Latin America and the Caribbean: FY2024 Appropriations,” Congressional Research Service, 2023. [https://crsreports.congress.gov/product/pdf/R/R47721#:~:text=FY2024%20Budget%20Request,for%20International%20Development%20\(USAID\).https://crsreports.congress.gov/product/pdf/R/R47721#:~:text=FY2024%20Budget%20Request,for%20International%20Development%20\(USAID\)](https://crsreports.congress.gov/product/pdf/R/R47721#:~:text=FY2024%20Budget%20Request,for%20International%20Development%20(USAID).https://crsreports.congress.gov/product/pdf/R/R47721#:~:text=FY2024%20Budget%20Request,for%20International%20Development%20(USAID)).

⁶⁶ Congressional Research Service, “Caribbean Basin Security Initiative,” In Focus, 2023. <https://sgp.fas.org/crs/row/IF10789.pdf>

farmer knowledge, and formalize smallholder market access by building micro-, small- and medium-sized enterprise capacity to improve the region’s access to locally produced food.⁶⁷ In Haiti, USAID has led various initiatives to combat deforestation, including promoting agroforestry systems, market-based solutions, and improving watershed stabilization. Through the agroforestry program, USAID helped improve cacao production techniques resulting in significant yield increases and improved quality, increasing profits and sustaining rural communities’ livelihoods.⁶⁸ In addition, the U.S. Department of Agriculture’s Caribbean Climate Hub and the U.S. Forestry Services Agency have been providing rigorous research on the challenges facing Caribbean forests, including assessing the impacts of climate change and providing reliable data to policymakers across the region.⁶⁹ Nonetheless, neither PACC 2030 nor CBSI has a pillar or targeted assistance area focused on the region’s challenges and threats associated with their forests.

At the CARICOM level, there is no common policy or regional framework regarding the use or management of forests. Nonetheless, regional non-profits such as the Caribbean Natural Resources Institute (CANARI), have played a leading role in advancing research and policies as well as strengthening capacity building to further sustainable development in the region.

4. Regional Threats and Challenges

Despite an increased awareness of the importance of forest management, considerable challenges remain. Although legal protection systems have been established and there has been a remarkable reforestation process in recent years, many Caribbean countries continue to face significant obstacles to efficiently manage their forests. Often, the lack of financial resources and technical capacity, as well as factors associated with institutional weakness and governance, hampers efforts to implement and monitor conservation initiatives—prompting the emergence of harmful economic activities in many Caribbean forests. Economic activities associated with tourism, such as coast development, have resulted in the degradation of the region’s forests. Illicit economic activities such as unauthorized clearing of land for agriculture, drug trafficking, as well as illegal mining, illegal timber harvesting, and illegal logging pose a significant challenge to the well-being of the region’s forests. Moreover, exacerbated by the looming threat of climate change, the livelihoods, health, and security of vulnerable rural communities and ecosystems remain at stake.

⁶⁷ U.S. Department of State, “U.S.-Caribbean Partnership to Address the Climate Crisis 2030.” <https://www.state.gov/pacc2030/>

⁶⁸ USAID/HAITI, “Reforestation & Agroforestry,” 2020. https://www.usaid.gov/sites/default/files/2022-05/USAID_Haiti_Reforestation_Fact_Sheet_-_January_2020.pdf

⁶⁹ United State Department of Agriculture, “Caribbean Forestry.” <https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/caribbean-area/caribbean-forestry>

4.1 Economic Activities

Today, across CARICOM member states, some economic activities—both legal and illegal—are the leading cause of deforestation and forest degradation.⁷⁰ In the Caribbean islands, despite the recent greening process that spread across the region, a construction boom associated with the development of the tourism industry is significantly threatening its forests as well as other delicate ecosystems. This remains particularly pressing for the region’s seasonally dry tropical forests—considered the most threatened tropical forest in the world.⁷¹ Caribbean islands’ dry forests, located on the lee side of mountainous islands or on coasts with low relief, are characterized by their distinct flora and structure, including their high level of endemism and short stature.⁷² Indeed, given their location suitable for human habitation, few Caribbean dry forests remain untouched and protected. For example, in Saint Lucia, unlike its other forests, such as its rainforests, cloud forests, and elfin woodlands, coastal dry forests lack any environmental protection. Saint Lucia’s Fifth National Biodiversity Report noted that tourism remains the main cause driving their destruction in the North East Coast.⁷³ As in most of the Caribbean, the destruction of dry forests threatens endemic species. The report acknowledged that anthropogenic causes are contributing to habitat loss and fragmentation: “... habitat change through inappropriate land use and uncontrolled development is occurring at a rapid rate at present and is expected to increase even further in the future, with the proposed increase in hotel plants, marinas and golf courses earmarked for coastal regions, and the proposed increase in housing and infrastructure, such as roads, which may impact dry forest areas.”⁷⁴

Mangrove forests, considered among the most carbon-rich forests in the tropics, capable of sequestering four times more carbon than the same amount of space in a rainforest and protecting coastal areas from intense storms, also remain susceptible to deforestation and degradation.⁷⁵ Unregulated coastal development, including housing, roads, hotels, ports, and rice cultivation, has replaced original mangroves across the region. As a result, studies show that Caribbean mangrove forests have declined 24 percent in the past quarter-century.⁷⁶ The decline of Jamaica’s mangroves are demonstrative of this trend, as it is estimated that over the past two decades the country

⁷⁰ FAO, “Forest and Climate Change in the Caribbean,” 2014. <https://www.fao.org/3/i4220e/i4220e.pdf>

⁷¹ Karina Banda-Rodríguez, Julia Weintritt, and R. Toby Pennington, “Caribbean Dry Forest Networking: An Opportunity for Conservation,” *Caribbean Naturalist*, 2016.

https://data.fs.usda.gov/research/pubs/iitf/ja_iitf_2016_Banda001.pdf

⁷² H.P. Nelson, E.S. Devenish-Nelson, B.L. Rusk, M. Geary, A.J. Lawrence, “A review of tropical dry forest ecosystem service research in the Caribbean – gaps and policy-implications,” *Ecosystem Services*, 2020.

<https://www.sciencedirect.com/science/article/abs/pii/S2212041620300371>

⁷³ Government of Saint Lucia, “Fifth National Biodiversity Report for Saint Lucia”, 2014.

<https://www.cbd.int/doc/world/lc/lc-nr-05-en.pdf>

⁷⁴ *Ibid.*

⁷⁵ Daniel C. Donato, J. Boone Kauffman, Daniel Murdiyarso, Sofyan Kurnianto, Melanie Stidham, and Markku Kanninen, “Mangroves among the most carbon-rich forest in the tropics”, *Nature Geoscience*, 2011. <https://www.nature.com/articles/ngeo1123>

⁷⁶ Beth A. Polidoro, et al., “The Loss of Species: Mangrove Extinction Risk and Geographic Areas of Global Concern”, *PLOS*, 2010. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0010095>

has lost more than 770 hectares of mangroves.⁷⁷ This trend is particularly daunting if we consider that Jamaica went from 15,000 hectares of mangroves in 1970 to 9,945 hectares in 2023.⁷⁸ According to the country's Department of Forestry, this decline comes as a direct result of the expansion of economic activities: "... one of the anthropogenic (man-made) activities impacting mangroves, in particular, is the unsustainable extraction of its resources for construction, yam sticks, artisanal fish pots, small-scale farming, charcoal production and also for use as firewood. Infrastructure developments such as the construction of hotels as well as road rehabilitation are two other major activities impacting mangroves."⁷⁹ Data shows that the highest mortality rate of mangroves in Jamaica has been registered in the parishes of Saint Thomas and Saint Catherine, due to the expansion of aquaculture and sugar cane.⁸⁰ According to the World Bank assessments, if Jamaica lost its mangroves, the amount of population facing annual flooding would increase by 10 percent and damage to residential and industrial property would increase by nearly 24 percent, amounting to approximately USD 32.6 million.⁸¹

Understanding the importance of mangroves, some countries like Guyana and Saint Lucia have launched mangrove restoration projects through the implementation of nature-based solutions. Under the Regional Strategy and Action Plan for the Valuation, Protection and/or Restoration of Key Marine Habitats in the Wider Caribbean 2021 - 2030 (RSAP), the United Nations Environment Programme (UNEP) is strengthening the resilience of vital nearshore marine habitats including mangroves as part of their regional obligations under the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean (Cartagena Convention.)⁸²

In Guyana and Suriname, informal small-scale mining has led to extensive mercury contamination and deforestation, representing a major threat to the region's unique forests. In particular, according to the World Wildlife Fund (WWF), gold mining activities are the leading driver of ecosystem degradation in the Guianas since "... artisanal and small-scale goldmining is a regional... problem as the mercury used by miners destroys habitat, freshwater, and the health of exposed people and wildlife."⁸³ Indeed, the use of mercury—a highly hazardous substance responsible for causing numerous health issues in both humans and animals—is a widespread technique to extract gold employed

⁷⁷ World Bank, "Forces of Nature: Coastal Resilience Benefits of Mangroves in Jamaica," 2019. <https://www.worldbank.org/en/region/lac/publication/forces-of-nature-coastal-resilience-benefits-of-mangroves-in-jamaica>

⁷⁸ Elizabeth Claire Alberts, "Jamaica battles relentless plastic pollution in quest to restore mangroves," Mongabay, 2023. [https://news.mongabay.com/2023/11/jamaica-battles-relentless-plastic-pollution-in-quest-to-restore-mangroves/#:~:text=In%20recent%20decades%2C%20mangroves%20in,hectares%20\(24%2C574%20acres\)%20now](https://news.mongabay.com/2023/11/jamaica-battles-relentless-plastic-pollution-in-quest-to-restore-mangroves/#:~:text=In%20recent%20decades%2C%20mangroves%20in,hectares%20(24%2C574%20acres)%20now)

⁷⁹ Forestry Department, "The Jamaican Mangrove Situation," 2022. <https://www.forestry.gov.jm/newsDetails?newsID=72>

⁸⁰ Ibid.

⁸¹ World Bank, "Forces of Nature: Coastal Resilience Benefits of Mangroves in Jamaica."

⁸² United Nations Environment Programme (UNEP), The Regional Strategy and Action Plan for the Valuation, Protection and/or Restoration of Key Marine Habitats in the Wider Caribbean 2021 - 2030 (RSAP.) <https://wedocs.unep.org/handle/20.500.11822/36347>

⁸³ WWF, "Mining & Freshwater." https://www.wwfguianas.org/our_work/programmes/mining/

primarily by artisan miners that dated back 150 years.⁸⁴ Studies have shown that elevated levels of mercury have been found in the hair, urine, and blood of rural fish-consuming populations, including vulnerable Indigenous communities.⁸⁵ Today the Guianas are responsible for 37 percent of global mercury emission.⁸⁶

Despite having ratified the Minamata Convention on Mercury—an international legally binding mechanism to phase out the usage of mercury for extracting gold—and having import restrictions in place, in both Guyana and Suriname most artisan miners continue to use mercury to extract gold. It is estimated that the illegal market is the major supplier of mercury in the region.⁸⁷

Given that the price of gold has surged sixfold since 2000, formal and informal mining operations experienced a boom in the region, leading to increased deforestation.⁸⁸ Data shows that from 1997 to 2019, as mining in Suriname increased by 522 percent, its forests lost the equivalent of 421.3 km², causing forest fragmentation and decreased vegetation health.⁸⁹ Likewise, in Guyana mining is responsible for over 84 percent of the total country's deforestation, followed by infrastructure and road-building as well as agriculture.⁹⁰ Moreover, a regional study conducted by the Ecosystem Services Observatory of the Guiana Shield, comprising Guyana, Suriname, French Guiana, and the Brazilian municipality of Amapá, has noted that by 2018 the cumulative deforestation caused by gold mining in the region was approximately 213,623 hectares (Guyana 50 percent, Suriname 35 percent, 13 percent French Guiana, and 2 percent Amapá,) with an approximately 3 percent of the deforestation occurring in protected areas.⁹¹ This study has also noted that Guyana's river networks are most impacted in the region due to gold mining activities "... Guyana has by far the most impacted river network in the region with more than 18,000 km. More than 3,000 km of rivers are directly destroyed, modified, or diverted, and five times more rivers downstream are potentially polluted by these operations (15,000 km)."⁹²

⁸⁴ Ibid.

⁸⁵ Social Solution, "The political ecology of mercury within the small-scale gold sector – Suriname", 2019. https://www.iucn.nl/app/uploads/2021/03/regional_mercury_report_suriname.pdf

⁸⁶ République Française, "Supporting the gradual phasing-out of mercury in the Guianas," Fonds Français pour l'Environnement Mondial. <https://www.ffem.fr/en/carte-des-projets/supporting-gradual-phasing-out-mercury-guianas>

⁸⁷ Social Solution, "The political ecology of mercury within the small-scale gold sector – Suriname", 2019.

⁸⁸ Yann Quash, Angela Kross, and Jochen A.G. Jaeger, "Assessing the impact of gold mining on forest cover in the Surinamese Amazon from 1997 to 2019: A semi-automated satellite-based approach," Ecological Informatics, 2023.

<https://www.sciencedirect.com/science/article/pii/S1574954123004715#:~:text=Mining%20in%20Suriname%20increased%20by,fragmentation%20and%20decreased%20vegetation%20health.>

⁸⁹ Ibid.

⁹⁰ WWF, Deforestation Front Fact Sheet: Venezuela and Guyana."

https://wwfint.awsassets.panda.org/downloads/deforestation_fronts_factsheet_venezuela_and_guyana.pdf

⁹¹ Ecosystem Services Observatory of the Guiana Shield, "Monitoring the impact of gold mining on the forest cover and freshwater in the Guiana Shield from 2001 to 2018."

<https://www.wwf.fr/sites/default/files/doc-2022-11/Gold%20mining%20impact%20on%20forest%20%26%20freshwater%20of%20the%20Guiana%20Shield%20-%20ECOSEO%20Project.pdf>

⁹² Ibid.

Informal gold mining has also led to an increase in networks of forced and child labor in the region. According to the OAS Department against Transnational Organized Crime (DTOC), this remains particularly pressing in Suriname as “...illegal mining continues to be one of the most common and quickest ways for criminal syndicates to launder funds, as it is still in high demand and under-regulated. The miners are often extorted by criminal groups, and for their businesses to survive, they pay significant sums or are coerced to engage in illegal activities under threat of violence. Often, but not always, a portion of the minerals extracted and transformed are stolen by the overseeing criminal groups.”⁹³ Among the most impacted groups are rural Indigenous and Tribal communities, who, without their right to land recognized in Suriname, have no right to share in the revenues from exploration of resources on their ancestral lands. The U.S. Department of State 2022 Country Report on Human Right Practices noted that “... small-scale mining operations, mainly by illegal gold miners, dug trenches that cut residents off from their agricultural land and threatened to drive [Maroon and Amerindian communities] communities away from their traditional settlements. Many of these miners were themselves tribal or supported by tribal groups. Mercury runoff from these operations, as well as riverbank erosion, contaminated drinking water and threatened traditional food sources, especially freshwater fish.”⁹⁴ The OAS has also reported that most of the illegal gold is not only sold in the domestic market but also sent to the U.S., Canada, and European markets.⁹⁵

Unlike the Caribbean islands, in Belize, the main cause of forest degradation and deforestation remains formal and informal logging and agricultural production. In particular, one of the most impacted areas are the regions of Orange Walk, Cayo, and Toledo, across the border with Guatemala—a border subject to an international territorial dispute between both countries, currently being settled at the International Court of Justice (ICJ). Indeed, deforestation along the border has been a long-standing problem for the past 30 years. As population grows in Guatemala and economic activities expand, Guatemalans illegally cross the border to engage in economic activities, resulting in environmental degradation, illegal natural resources extraction, illegal semi-permanent agricultural settlements, as well as stressing the diplomatic relations between countries.⁹⁶ Studies have shown that for the period 1991-2014, forest cover in protected areas near the border have significantly decline in Vaca Forest Reserve 97.88 percent to 87.62 percent and in Caracol Archeological Reserve by 99.47 percent to 78.10 percent.⁹⁷

⁹³ Organization of Americans States, “On the trail of illicit gold proceeds” strengthening the fight against illegal mining finances: Suriname,” 2023. <https://www.oas.org/en/sms/dtoc/docs/suriname-eng-digital.pdf>

⁹⁴ U.S. Department of State, “2022 Country Reports on Human Rights Practices: Suriname,” 2022. <https://www.state.gov/reports/2022-country-reports-on-human-rights-practices/suriname/>

⁹⁵ Organization of Americans States, “On the trail of illicit gold proceeds” strengthening the fight against illegal mining finances: Suriname.”

⁹⁶ S.D. Chicas, K. Omine, J.B. Ford, K. Sugimura, K. Yoshida, “Using spatial metrics and surveys for the assessment of trans-boundary deforestation in protected areas of the Maya Mountain Massif: Belize-Guatemala border,” *Jorurnal of Environmental Management*, 2016. <https://www.sciencedirect.com/science/article/abs/pii/S0301479716309550>

⁹⁷ Ibid.

Moreover, given the difficulties associated with the remoteness of forested terrain and lack of resources to properly police the border, transnational criminal organizations have found a safe-haven in the Guatemalan-Belizean border area. According to the Global Organized Crime Index, the border area serves as a transit point for heroin and cocaine bound for the U.S. and Mexico, as well as for human trafficking, illegal logging, and wildlife trafficking. Moreover, there are reports that Belize has a small illegal gold extraction market run entirely by Guatemalans.⁹⁸

4.2 Climate Change

Caribbean countries are considered particularly susceptible to climate change. Their exposure to multiple natural hazards, as well as their financial constraints to allocate resources in capacity-building resilience and adaptation strategies, further increases their vulnerability in relation to other regions. Impacts associated with sea level rise, intense tropical cyclones, storm surge, saltwater intrusion, droughts, changing precipitation patterns, and coral bleaching are degrading their terrestrial and marine ecosystems, increasing food and water insecurity, and stressing the region's economies and critical infrastructure.⁹⁹

Like most ecosystems, forest ecosystems remain heavily vulnerable to climate change. Forest degradation and warmer temperatures as a result of climate change are facilitating the outbreak of pests, the spread of invasive species, and the intensification of wildfires and tropical storms.¹⁰⁰ Though some impacts occur in shorter periods and others take decades, the Caribbean has already started to witness the consequences of climate change.

Hurricanes, which are growing more intense as a direct result of climate change, represent a major threat to the region's forests.¹⁰¹ Indeed, according to the 2021 Global Climate Risk Index, Haiti (3), and The Bahamas (6) are two out of the ten countries and territories most affected by extreme weather events.¹⁰² For example, category five Hurricane Dorian caused severe damage to The Bahamas' pine forests and wetlands. An environmental assessment from the country's National Trust noted that "... the 185 mile-per-hour winds of Hurricane Dorian tore away the tops of crude oil storage tanks and

⁹⁸ Global Organized Crime Index, "Belize", 2023.

<https://ocindex.net/country/belize#:~:text=Belize%20serves%20as%20a%20transit,into%20Mexico%20and%20the%20US>.

⁹⁹ Intergovernmental Panel on Climate Change (IPCC), "Sixth Assessment Report Working Group II- Impacts," Adaptation and Vulnerability - Fact Sheet – Small Islands, 2022.

https://www.ipcc.ch/report/ar6/wg2/downloads/outreach/IPCC_AR6_WGII_FactSheet_SmallIslands.pdf

¹⁰⁰ EPA, "Climate Change Impacts on Forest: Overview." <https://www.epa.gov/climateimpacts/climate-change-impacts-forests#:~:text=Climate%20change%20will%20influence%20a,species%2C%20wildfires%2C%20and%20storms.&text=Some%20disturbances%2C%20like%20a%20wildfire,happen%20over%20decades%20to%20centuries>.

¹⁰¹ Center for Climate and Energy Solutions, "Hurricane and Climate Change."

¹⁰² German Watch, "Global Climate Risk Index," 2021.

<https://www.germanwatch.org/sites/germanwatch.org/files/2021-01/crictable10countriesmostaffectedfrom2000to2019.jpg>

subsequently spread oil from two full tanks over an area encompassing more than 21 square miles... of habitat... Nearly 5-million gallons of oil were released from the facility which was spread over wetlands, pine forests, and a quarry by winds blowing to the northeast.”¹⁰³

Moreover, a larger study conducted by the U.S. Department of Agriculture’s Forest Service estimates that nonnative tree species are reclaiming prominence after extreme weather events. The study conducted across Puerto Rico and the U.S. Virgin Islands spanning 19 years found that after Hurricane Maria in 2017, “the total biomass of a fast-growing nonnative species, the African tulip Tree (*Spathodea campanulate*), may again be overtaking that of the most common group of native tree species, even though, at least for young and small trees, nonnatives die at twice the rate of native ones.”¹⁰⁴

4.3 Good Governance Challenges and Financial Constrains

Just as some of the greenest countries (Guyana and Suriname) and one of the most deforested (Haiti) in the world coexist within CARICOM, there are also important regional differences in terms of governance, as well as institutional and financial stability. While Barbados, considered one of the most prosperous countries in the region, is among the world’s most stable liberal democracies, and its government consistently ranks among the region’s most effective, Haiti, the hemisphere’s poorest country, currently has a state hijacked by gangs and remains unable to provide its population with basic services, such as health, education, security, and sanitation.

Despite important differences, all CARICOM member states share the condition of Small Island and Low-lying Coastal Developing States (SIDS). This term, first recognized at the 1992 United Nations Conference on Environment and Development, groups 39 states and 18 associated members in the Caribbean, the Pacific, the Atlantic, as well as the Indian Ocean, and the South China Sea, which face unique social, economic, and environmental vulnerabilities. Among the most notable challenges are their geographical remoteness, high transportation costs, small population size, economic and financial vulnerability to external shocks, fragile ecosystems, limited institutional capacity, lack of economic diversification, and scarce financial resources.¹⁰⁵

In the Caribbean, this often translates into limited government efficiency and a lack of human capacity, high public debt, lack of economic diversification, and vulnerability to external shocks. Indeed, the Caribbean remains one of the most indebted regions in the world. The International Monetary Fund estimated that in 2021 the average

¹⁰³ Bahamas National Trust, “State of the environment: post hurricane Dorian report.”

<https://bnt.bs/storage/2021/12/State-of-the-Environment-Post-Dorian-Report-2021-1.pdf>

¹⁰⁴ Eileen H. Helmer, Shannon Kay, Humfredo Marcano-Vega, Jennifer S. Powers, Tana E. Wood, Xiaolin Zhu, David Gwenzi, Thomas S. Ruzycki, “Mutiscale predictors of small tree survival across heterogeneous tropical landscape,” PLOS ONE, 2023. <https://www.eurekalert.org/news-releases/982794>

¹⁰⁵ United Nations, “About Small Island Developing States.” <https://www.un.org/ohrlls/content/about-small-island-developing-states>

public debt to GDP ratio was 90.8 percent—significantly above Latin America’s 53.1 percent.¹⁰⁶

The lack of financial resources available to developing countries has disproportionately impacted Caribbean countries. Due to their structural financial constraints to repay, develop, and implement climate and conservation projects, they have limited financial options, mainly receiving climate finance through grants. Unlike loans that are used to fund large, profitable infrastructure projects, grants tend to support capacity building, feasibility studies, and technical assistance. Also, it is important to note that many Caribbean countries, such as The Bahamas, Barbados, and Saint Kitts and Nevis are not eligible for concessional financing due to their classification as middle or high-income countries. However, despite graduating from least developed countries (LDC) status, they continue to experience natural disasters and the multiple impacts associated with climate change, remaining heavily dependent on development finance to boost climate resilience as well as protect their vulnerable ecosystems.

Moreover, in some countries in the region, issues associated with institutional weakness, corruption, and weak rule of law further exacerbate their structural constraints. As a result, some countries remain unable to protect their forests and the communities that live within. The emergence and spread of illegal economic activities, the illegal smuggling and use of mercury, and the unregulated construction of tourism infrastructure, are significantly associated with the region’s institutional weaknesses and its inherent structural challenges.

For example, in Suriname, despite having signed the Minamata Convention and not having any official records of mercury imports since 2003, according to a recent report from the OAS, tons of mercury have been used over the last two decades, allegedly smuggled from neighboring Guyana as well as from China via containers.¹⁰⁷ According to multiple reports, the Suriname Customs department very often engages in corrupt practices, allowing containers to enter or leave the country unchecked.¹⁰⁸ Moreover, reports indicate that the Suriname Police Corps, responsible for controlling the check points on main roads to prevent smuggling, often do not seize any mercury flasks as a result of a lack of specific focus on combatting mercury smuggling and transportation.¹⁰⁹ According to the World Bank’s Good Governance indicators, Suriname, has CARICOM’s second least effective government ranking after Haiti, in the percentile 15.09/100.¹¹⁰

¹⁰⁶ Dillon Alleyne, Michael Hendrickson, Sheldon McLean, Machel Pantin, Nyasha Skerrette, “Economic Survey of the Caribbean 2022,” ECLAC, 2022.

https://repositorio.cepal.org/bitstream/handle/11362/48693/1/S2201297_en.pdf; ECLAC, “Preliminary Overview of the Economies of Latin America and the Caribbean,” 2022.

https://issuu.com/publicacionescepal/docs/preliminary_overview2022_en#:~:text=Central%20government%20debt%20in%20Latin,GDP%20at%202021%20year%2Dend.

¹⁰⁷ Organization of American States, “On the trail of illicit gold proceeds” strengthening the fight against illegal mining finances: Suriname.”

¹⁰⁸ Social Solution, “The political ecology of mercury within the small-scale gold sector – Suriname”, 2019.

¹⁰⁹ *Ibid.*

¹¹⁰ According to the World Bank, Percentile Rank (0-100) indicates rank of country among all countries in the world. 0 correspond to lowest rank and 100 corresponds to highest rank. World Bank, “Worldwide

Moreover, Freedom House's 2023 'Freedom in the World' report indicates that corruption and clientelism remain pervasive problems throughout society and government, undermining rule of law.¹¹¹

5. Recommendations and Conclusion

Forests are one of CARICOM member states' most precious and fragile natural resources. Given their importance as providers of essential ecosystem services as well as their economic value and their role in mitigating climate change, it remains imperative for CARICOM member states to implement a series of policies aiming at supporting conservation efforts and addressing institutional challenges to help combat the threat of deforestation and forest degradation.

Supporting Conservation Efforts

- **Increase the number and acreage of protected areas:** Protected areas, considered the foundation of modern-day conservation approaches, not only facilitate combatting deforestation and safeguarding biodiversity, but also help mitigate climate change. Caribbean islands have 21.7 percent of terrestrial areas protected.¹¹² In Suriname the number of terrestrial protected areas is 14.5 percent, in Guyana 8.5 percent, and in Belize, 37.5 percent.¹¹³ The designation of protected areas has resulted in tangible results for the region. For instance, thanks to the designation of protected areas in the Guiana Shield, including Guyana, Suriname, French Guiana, and Amapá (Brazil), only 3 percent of illegal gold mining has happened in the protected areas. In Belize, the establishment of a comprehensive network of protected areas in the 1980s and 1990s allowed forest regrowth and a decrease in agriculture production, making protected areas an essential refuge for habitat and maintaining vital ecosystem services.¹¹⁴ It remains critical for increasing protection in the region's seasonally dry tropical forests—considered the most threatened tropical forest in the world.
- **Ensure the proper governance and management of protected areas:** Without a comprehensive strategy to manage, monitor, and ensure the health of the ecosystems within protected areas, practices such as the expansion of illegal economic activities remain a threat. Indeed, good governance and management are key elements to ensure an effective protected area.

governance indicators." <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

¹¹¹ Freedom House, "Suriname," Freedom in the World.

<https://freedomhouse.org/country/suriname/freedom-world/2023>

¹¹² United States Fish and Wildlife Service, "Traditional Ecological Knowledge for Application by Service Scientists"

¹¹³ The World Bank, "Terrestrial protected areas (% of total land area)- Guyana, Suriname, Belize.

<https://data.worldbank.org/indicator/ER.LND.PTLD.ZS?locations=GY-SR-BZ>

¹¹⁴ Bert A. Mitchell, Zoe Walker, and Paul Walker, "A Governance Spectrum: Protected Areas in Belize," 2017. https://parksjournal.com/wp-content/uploads/2017/04/PARKS-23.1-Mitchell-et-al-10.2305IUCN.CH_2017.PARKS-23-1BAM.en.pdf

- **Deeper engagement with Indigenous and Tribal peoples and civil society organizations:** According to the International Union for Conservation of Nature (IUCN), both Indigenous and Tribal peoples as well as civil society organizations play a key role in governing protected areas. Among the four types of governance, it recognizes governance by government, shared governance, private governance, and governance by Indigenous and local communities.¹¹⁵ Since the 2003 World Parks Congress in Durban, the contribution of Indigenous and Tribal peoples in protecting forests and leading conservation efforts has gained recognition. Indeed, it is widely recognized that Indigenous and Tribal peoples are key stakeholders in the protection of forests when they have substantial influence over decision-making. Nonetheless, within CARICOM countries, Suriname does not recognize Indigenous and Tribal peoples' rights. Although Suriname voted in favor of adopting the 2007 UN Declaration on the Rights of Indigenous peoples, it has not ratified the ILO Convention 169 nor recognized any rights of its indigenous and tribal peoples at the national level. Today, the Indigenous and Tribal peoples of Suriname remain outside the decision-making process that impacts their ancestral lands.

- **Promote innovative financing strategies such as the carbon credit market and payments for environmental services:** Carbon markets, both compliance and voluntary, are a trading system in which carbon credits are sold and bought. Companies or individuals can use carbon markets to offset their greenhouse gas emissions by purchasing carbon credits from entities that eliminate or reduce greenhouse gas emissions.¹¹⁶ Payments for environmental services provide the opportunity, is a market-based mechanism that encourage farmers and landowners enhance the conservation of natural resources.¹¹⁷ Given the limited access to climate finance by developing countries and in particular SIDS, the development and expansion of carbon markets represent not only an important economic opportunity but also a way to strengthen conservation efforts. Indeed, according to the United Nations Development Programme (UNDP), developing countries will need up to US\$6 trillion by 2030 to finance not even half of their climate action goals (as listed in their Nationally Determined Contributions, or NDCs).” Caribbean countries need to promote carbon credit markets by ensuring transparency, building the proper financial infrastructure for carbon market transactions, as well as recognizing Indigenous and Tribal peoples’

¹¹⁵ Grazia Borrini-Feyerabend, Nigel Dudley, Tilman Jaeger, Barbara Lassen, Neema Pathak Broome, Adrian Phillips, and Trevor Sandwith, “Governance of Protected Areas: From understanding to action,” IUCN.

<https://portals.iucn.org/library/sites/library/files/documents/pag-020.pdf>

¹¹⁶ UNDP, “What are carbon markets and why are they important?” 2022.

<https://climatepromise.undp.org/news-and-stories/what-are-carbon-markets-and-why-are-they-important>

¹¹⁷ IIED, “Markets and payments for environmental services.” [https://www.iied.org/markets-payments-for-environmental-services#:~:text=Payments%20for%20environmental%20services%20\(also,to%20provide%20an%20ecological%20service](https://www.iied.org/markets-payments-for-environmental-services#:~:text=Payments%20for%20environmental%20services%20(also,to%20provide%20an%20ecological%20service)

rights and acknowledging land rights, management arrangements, and benefit sharing.

Addressing Challenges and Threats

- **Combat illegal economic activities and secure borders:** Illicit economic activities such as clearing of land for agriculture, drug trafficking, as well as illegal mining and logging pose a significant challenge to the well-being of the region's forests and its inhabitants. It remains imperative for Caribbean countries to build capacity to better prevent, detect, investigate, and prosecute transnational organized criminal organizations that engage in crimes that affect the environment.¹¹⁸ Strengthening international and regional cooperation to increase data sharing collection, research, and analysis of illegal logging and illegal mining activities through remote sensing and geospatial analysis offer regional policymakers vital tools. In 2022, SERVIR-Amazonia—a joint development initiative of the National Aeronautics and Space Administration (NASA) and USAID, gathering geospatial information for improved environmental decision-making in the Amazon Basin—expanded to the Caribbean to forecast and monitor hydro-meteorological events, as well as to evaluate land use in mangrove ecosystems in Antigua and Barbuda, Dominica, Grenada, Guyana, Jamaica, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Barbados, The Bahamas, Trinidad and Tobago, and Suriname. It remains imperative that this program gets renewed and expanded to other countries such as Belize. Additionally, the program would do well to branch out to other thematic areas, including the detection of threats including alerts about illegal activities such as illegal logging and illegal mining.¹¹⁹
- **Strengthen good governance and environmental rule of law:** Effective governance is imperative. Environmental rule of law, a concept promoted by the United Nations Environmental Programme (UNEP), integrates environmental needs with the essential elements of the rule of law. According to UNEP, “without environmental rule of law and the enforcement of legal rights and obligations, environmental governance may be arbitrary, discretionary, subjective, and unpredictable.”¹²⁰
- **Include in PACC 2030 and CBSI a pillar on forest management as well as illegal economic activities and environmental crimes:** PACC 2030 and CBSI are two important U.S. cooperative initiatives in the region, and it remains crucial to incorporate an emphasis on forest management, a security pillar aimed

¹¹⁸ United Nations Office on Drugs and Crime UNODC, “UNODC Approach to Crimes in the Forest Sector.” https://www.unodc.org/documents/Wildlife/UNODC_Approach_Crimes_Forest_Sector.pdf

¹¹⁹ SERVIR Amazonia. <https://servir.alliancebioiversityciat.org/collaboration-with-caribbean-countries-to-combat-climate-change/>

¹²⁰ UN Environmental Programme, “Environmental Rule of Law”, <https://www.unep.org/exploretopics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-o>

at dismantling the illegal mercury market, as well as addressing illegal logging, drug trafficking and human trafficking occurring in Caribbean forests.

- **Promote sustainable tourism practices:** Given the region’s dependency on tourism and the significant impact it has on biodiversity, Caribbean countries should move, in line with United Nations World Tourism Organization (UNWTO) principles, towards optimizing the use of environmental resources, maintaining essential ecological processes, and helping to conserve natural heritage and biodiversity.¹²¹ Most Caribbean islands GDP’s rely heavily on this sector: 83.3 percent Antigua and Barbuda, 59.8 percent to Saint Lucia, 43.6 percent to Saint Kitts and Nevis, 43.6 percent Grenada, 42.5 percent The Bahamas, 40.5 percent to Saint Vincent and the Grenadines, 29.5 percent Barbados, 29.1 percent Jamaica.¹²² Vulnerable Caribbean coastal ecosystems, such as mangrove forests as well as the Caribbean’s seasonally dry forest need to be protected from coastal development associated to tourism.

- **Deepen international climate cooperation:** CARICOM member states must continue to use their voices and votes in international forums to pressure the United States, the European Union, China, India, and other large economies to cut greenhouse gas emissions. The Caribbean maintains moral authority on this issue as, despite its small contribution to global greenhouse gas emissions, the region still stands as one of the most climate-vulnerable regions in the world. While Caribbean countries can control the local factors driving deforestation and forest degradation in the region, these states cannot directly tackle the overarching impacts of climate change on their ecosystems.

¹²¹ United Nations World Tourism Organization (UNWTO), “Sustainable Development”.

<https://www.unwto.org/sustainable-development>

¹²² World Travel & Tourism Council, “Travel & Tourism in the Caribbean: Prospects for growth.”

<https://wttc.org/Portals/0/Documents/Reports/2022/Travel-and-tourism-in-the-caribbean.pdf>