



**Statement before the House Foreign Affairs Committee**

***“Forest Conservation  
in the Fight Against Climate Change.”***

A Testimony by:

**Romina Bandura**

Senior Fellow, Project on Prosperity and Development,  
Project on U.S. Leadership in Development, CSIS

**May 12, 2022**

**2172 Rayburn House Office Building**

Chairman Meeks, Ranking Member McCaul, distinguished members of the House Foreign Affairs Committee, good morning. I am honored to share my views with you and the Committee this morning on the importance of investing in natural climate solutions as part of global adaptation and mitigation efforts, and how the United States can support policies to advance these efforts. I would like to note that CSIS does not take policy positions, so the views represented in my testimony are my own and not those of my employer.

I welcome this important hearing aimed at helping to preserve our forests and support countries in meeting their Paris commitments. I am development professional, not a conservation scientist, so my testimony today will focus on the economic, security and governance drivers of deforestation, particularly with regards to the Amazon basin, the largest rainforest in the world.

My remarks are largely based on the findings of a recent Center for Strategic and International Studies (CSIS) report, connecting non-environmental issues with the shrinking of the Amazon ecosystem.<sup>1</sup>

### **Beyond the Environment: Governance, Security and Economic Development in the Amazon Basin**

Data by the Food and Agriculture Organization of the United Nations shows that five countries (Russia, Brazil, Canada, the United States and China) hold more than 50 percent of the world's forest cover.<sup>2</sup> The Amazon basin is a vast territory – approximately the size of the continental United States – and extends to eight countries: Brazil, Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela. Brazil contains 60 percent of the Amazon rainforest while Peru and Colombia cover 13 and 10 percent, respectively.<sup>3</sup>

The Amazon is home to the world's greatest biodiversity, 20 percent of the world's freshwater resources, and serves as the “air conditioner of the Earth,” storing carbon and regulating rainfall and climate patterns both in South America and the world.<sup>4</sup> What is less well known about the Amazon is that beyond its rich environmental endowment, there are significant economic resources that can be sustainably developed, and there are people inhabiting this region that need jobs, healthcare and education. The Amazon holds natural waterways and fisheries, mineral deposits (i.e. gold, copper and nickel), oil and gas, forestry products and medicinal plants. It is also home to between 30 and 35 million people, most of whom live in urban areas (i.e. regional capitals

---

<sup>1</sup> Bandura, Romina, and Shannon McKeown. “Sustainable Infrastructure in the Amazon.” Sustainable Infrastructure in the Amazon | Center for Strategic and International Studies. Center for Strategic and International Studies, October 26, 2020. <https://www.csis.org/analysis/sustainable-infrastructure-amazon>.

<sup>2</sup> “The State of the World's Forests 2020.” [www.fao.org](http://www.fao.org). Accessed May 10, 2022. <https://www.fao.org/state-of-forests/en/>.

<sup>3</sup> Ibid.

<sup>4</sup> El Ghali Fikri, Henry Koster, and Wijnand de Wit, *Healthy Rivers, Healthy People: Addressing the Mercury Crisis in the Amazon*, prepared by Dahlberg Advisors (Gland, Switzerland: WWF, 2018), <https://www.wwf.org.uk/sites/default/files/2018-11/WWF%20-%20Healthy%20Rivers%20Healthy%20People.pdf>.

and medium-sized cities).<sup>5</sup> There are also about 1.6 million indigenous people from 400 tribes. Yet the Amazon often lags behind other regions in socioeconomic development.<sup>6</sup>

However, a host of environmental, economic, governance, and security challenges are threatening the Amazon's future. Since the 1970s, the Amazon Basin has been battered by significant loss of biodiversity and forest cover as well as increasing water contamination.<sup>7</sup> Approximately 17 percent of the forest cover has been lost.<sup>8</sup> The main activities that have contributed to deforestation vary among countries and include both *legal economic* ventures such as commercial cattle ranching, soy production, and infrastructure development and *illegal activities* such as land-grabbing, illegal gold mining, and coca cultivation and cocaine production.

Recently, unprecedented levels of deforestation have propelled the Amazon Basin dangerously close to what some scientists describe as its “tipping point”—the level of deforestation after which the rainforest will be incapable of producing enough rain to sustain itself, resulting in its degradation into a savannah.<sup>9</sup> A drier Amazon would release billions of tons of carbon into the atmosphere, exacerbate global warming and be detrimental to climate change, and disrupt weather patterns in South America and abroad.

Beyond the environmental impacts, deforestation also has significant social repercussions.<sup>10</sup> Every year, hundreds of early deaths occur in the Amazon from the pollution generated by fires, mercury contamination in water stemming from gold mining, and other causes. Moreover, deforestation undermines the livelihoods of communities, as many rely on the forest and waterways for their revenue. Illegal activities that contribute to deforestation also affect basic human security and create conflicts with local and indigenous communities.

Deforestation in the Amazon Basin has negative environmental and social implications, for the region and the world.<sup>11</sup> However, deforestation is a complex issue that is linked with structural challenges in countries of the region. The degradation in the Amazon is not solely an environmental problem: it is a symptom of economic and governance vulnerabilities, including high levels of poverty, human insecurity, weak governance, and inadequate infrastructure planning. Yet these problems figure less prominently in the discourse on the Amazon: if these issues are not included in the discussion, we will literally not be seeing “the forest for the trees.”<sup>12</sup>

---

<sup>5</sup> Daniel F. Runde, opinion contributor. “US Needs to Play Constructive Role in Development of the Amazon.” The Hill. The Hill, November 16, 2020. <https://thehill.com/opinion/international/526121-us-needs-to-play-constructive-role-in-development-of-the-amazon/>.

<sup>6</sup> Bandura, Romina, and Shannon McKeown. “Sustainable Infrastructure in the Amazon.”

<sup>7</sup> Ibid.

<sup>8</sup> “Why Is the Amazon Rain Forest Disappearing?” Time. Time. Accessed May 10, 2022. <https://time.com/amazon-rainforest-disappearing/>.

<sup>9</sup> Harvey, Chelsea. “Amazon Rain Forest Nears Dangerous 'Tipping Point'.” Scientific American. Scientific American, March 8, 2022. <https://www.scientificamerican.com/article/amazon-rain-forest-nears-dangerous-tipping-point/>.

<sup>10</sup> Bandura, Romina, and Shannon McKeown. “Sustainable Infrastructure in the Amazon.”

<sup>11</sup> Ibid.

<sup>12</sup> Lerner, Betsy. In *The Forest for the Trees*. London: Macmillan, 2016.

## Current Challenges in the Amazon Basin

Amazon countries have structural challenges that enable the drivers of deforestation to thrive. The underlying causes of deforestation can be traced to three main interrelated factors.

*First*, the communities that live in the Amazon region are some of the poorest in Latin America and experience a set of unique socioeconomic problems, including a *lack of meaningful economic opportunities*, informality in the job market, disputes over resources like land, and insufficient basic public services such as health and education, water and sanitation, and security.<sup>13</sup> Powerful groups exploit the lack of genuine economic opportunities in parts of the Amazon region to compel people to engage in activities that are informal (such as subsistence agriculture) and others that are illegal in nature (such as logging or, in the extreme, producing illegal drugs such as cocaine) as a means to survive.

*Second*, there is *weak governance and “state presence”* in the region, with implications for law enforcement and resource management.<sup>14</sup> In many instances, the process of land titling and registration at the subnational level is not well defined, which leads to land grabs and clashes with local communities and indigenous people. Inadequate governance creates opportunities for settlers to invade public lands, leading to further deforestation. Regional and local governments in the Amazon often lack the technical capacity, personnel, and budgetary resources to effectively address the problems of illegal activity and provide adequate land governance, law enforcement, and public services. Moreover, environmental licenses are not properly administered and areas that are delimited for indigenous tribes and natural parks are not safeguarded. Bribes and corruption also play a role in the performance of officials. Corruption across sectors and levels of government wastes valuable public resources and creates a general culture of impunity for different actors to exploit.

*Third*, *poorly planned and executed infrastructure projects* can exacerbate deforestation and create more social conflict. “Mega” infrastructure projects—mainly roads and hydropower—have primarily been pushed forward in the Amazon without a careful analysis of strategic prioritization, the best engineering designs, or viable alternatives and have ignored the potential externalities of these endeavors and their harm or benefit to the full range of stakeholders.<sup>15</sup>

New investors are taking advantage of economic opportunities in the region. China has replaced the United States as Peru’s top trading partner and in 2019 Peru joined the Belt and Road Initiative (BRI) with investments focused particularly on mining.<sup>16</sup> Recent mining investments underscore the challenge of implementing strong social and environmental standards. Similarly, China has also become the top trading partner and infrastructure investor for Brazil. China’s interests in Brazil center on food security (soy and beef) and natural resources. It is also investing in agriculture, logistics, energy and infrastructure projects (including in the Amazon). With new project plans, particularly those originating from China, it is imperative that these new investors

---

<sup>13</sup> Bandura, Romina, and Shannon McKeown. “Sustainable Infrastructure in the Amazon.”

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> “Peru (per) Exports, Imports, and Trade Partners.” OEC. Accessed May 10, 2022. <https://oec.world/en/profile/country/per>.

also respect world class “quality infrastructure” standards, meaning, the projects follow high economic, governance, social and environmental standards.<sup>17</sup>

### **Opportunities in the Amazon Basin**

Despite these shortcomings, countries have the ability to balance environmental, security, and economic concerns in the Amazon. Due to the efforts of governments, private companies, and nonprofit organizations, more than 80 percent of the forest is still intact and the region has the potential to produce goods and services more sustainably based on a “standing forest economy.”<sup>18</sup> In the course of the last 20 years, some of the Amazon Basin countries have made significant progress in instituting a series of legal frameworks, policies, and institutions for protecting the rainforest.

Similarly, robust international “quality infrastructure” (or sustainable infrastructure) frameworks and standards have been developed, offering important tools to improve infrastructure planning in the Amazon Basin.<sup>19</sup> These frameworks focus on governance aspects such as strengthening institutional capacity (including planning and procurement processes) as well as including environmental and social impacts (such as consulting with communities and promoting job creation, capacity building, and transfer of expertise and know-how to local communities).

At the same time, citizens in these countries themselves are concerned about the Amazon’s future and are increasingly willing to support conservation efforts. Increased global attention from media, donors, investors, and consumers puts more pressure to shift the regional development paradigm from one based on resource exploitation to one that is more sustainable in the long term.

### **The U.S. Role: Sustainable Development in the Amazon Basin**

Within this complex situation, the U.S. can and should play a constructive role in the Amazon Basin, supporting countries with environmental conservation and economic development. Beyond environmental programs, the U.S. can assist in three interrelated areas: governance, economic growth and security.

*First*, the U.S. government needs to take a more holistic approach to the issue of deforestation, linking the financial and technical assistance that various U.S. bilateral agencies provide on governance, economic development and security to the environmental challenge. As I just laid out in this testimony, deforestation is not merely an environmental problem and requires coordination among our bilateral agencies – a multidisciplinary and multistakeholder approach.

---

<sup>17</sup> Motoko Aizawa, “Sustainable Development through Quality Infrastructure: Emerging Focus on Quality over Quantity,” *Journal of Mega Infrastructure and Sustainable Development*, January 17, 2020, <https://www.tandfonline.com/doi/abs/10.1080/24724718.2019.1706922?journalCode=rjmi20>.

<sup>18</sup> “New Campaign to Protect 80% of the Amazonia by 2025.” One Earth. Accessed May 10, 2022. <https://www.oneearth.org/new-campaign-to-protect-80-of-the-amazonia-by-2025/#:~:text=Ensuring%20the%20integrity%20of%20the,of%20its%20forests%20remain%20intact.>

<sup>19</sup> Motoko Aizawa, “Sustainable Development through Quality Infrastructure: Emerging Focus on Quality over Quantity,” *Journal of Mega Infrastructure and Sustainable Development*, January 17, 2020, <https://www.tandfonline.com/doi/abs/10.1080/24724718.2019.1706922?journalCode=rjmi20>.

Working through the State Department and bilateral aid agencies (i.e., USAID, the U.S. International Development Finance Corporation) and multilateral development banks (i.e., the World Bank, and the IDB), the U.S. can help countries tackle some of these governance and institutional weaknesses, particularly at the subnational level where local governments need additional human resources, technical training, and budgetary and financial tools. For example, supporting better land titling, concessions management, budgeting, security, and public service provisions. Efforts to eliminate corruption should be incorporated across U.S.-funded development programs.

*Second*, on the Amazon 21 bill, it would be important to incorporate language on where the program will be implemented, that is, what will be the country selection process.<sup>20</sup> There also should be “buy-in” *both* from national and subnational governments when implementing the program. Sometimes different levels of government do not talk to each other: national government plans and policies are disconnected from or at odds with subnational plans, which leads to poor project choices and wasted resources, ultimately affecting the sustainability of the region. If countries are going to implement forest-conservation and terrestrial carbon-sequestration projects, there has to be agreement and coordination among the different levels of government.

Moreover, new investors and donors in the region (for example China and private companies) have to be brought into forest conservation, otherwise what the U.S. will provide with one hand, others will take with the other. At the same time, the proposed “International Terrestrial Carbon Sequestration Fund” could become a “matching fund” and catalyze monies from other actors, like the private sector, philanthropies and donors.<sup>21</sup> In that way, the fund will generate more resources and in turn ensure ownership, accountability and greater impact in conserving forests.

*Third*, U.S. private sector investments can also play a part in developing green supply chains and providing livelihoods for people in the region. More concerted efforts are needed to bring in the private sector in order to create value supply chains that can keep the forest alive and provide economic alternatives to people including jobs in the bioeconomy, eco-tourism and adding value to timber and non-timber forestry products, and commodities like coffee, cacao, nuts, and superfruits, such as açai. Açai is becoming increasingly popular in the U.S., and already generates more than \$1 billion per year to the Amazon economy. Unlike more extractive industries, açai production also supports environmental preservation and provides socioeconomic benefits for local communities. Since 2000, Natura, Brazil’s largest cosmetics company, has operated in the Amazon while also contributing to the economic, social, and environmental development of the region.<sup>22</sup> In food and beverages, Coca-Cola’s Manaus factory sources half of its guaraná berry inputs from family farms, and also invests in initiatives to provide potable water to the population.<sup>23</sup>

---

<sup>20</sup> “Hoyer Announces AMAZON21 Legislation, Delivering President Biden’s COP26 Pledge of \$9 Billion to Combat Deforestation.” Congressman Steny Hoyer, November 3, 2021. <https://hoyer.house.gov/content/hoyer-announces-amazon21-legislation-delivering-president-biden-s-cop26-pledge-9-billion>.

<sup>21</sup> Ibid.

<sup>22</sup> Kempson Cabral, “Empresas e o desenvolvimento sustentável na Amazônia,” Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável, August 29, 2019, <https://cebds.org/empresas-desenvolvimento-sustentavel-amazonia/#.Xrg7hi-z1N0>.

<sup>23</sup> Bandura, Romina, and Shannon McKeown. “Sustainable Infrastructure in the Amazon.”

*Fourth*, on security and law enforcement, the U.S. should continue providing military training and technological know how to better surveil the forest and its economic activities. Professionalizing law enforcement agencies and using advanced technology for supply chain traceability programs can improve local government's ability to enforce laws and address deforestation. Developing renewable energy and mobile technology in remote areas could also help local communities be part of the solution.

## **Conclusion**

Action is necessary now to ensure that the Amazon Basin is preserved, economic opportunities are generated, and social conflicts are avoided. The potential regional and global effects could be dire if action is not taken to prevent further deforestation. Given the current situation, we are currently at a crossroads in responding to deforestation in the Amazon.

There is no magic wand that will solve all of the Amazon's current challenges: the region requires a multisector and multistakeholder approach. These countries are sovereign nations and own the Amazon rainforest, so the United States and international community need to be mindful on how they engage in the region.<sup>24</sup> National governments are primarily responsible for preserving the environment and achieving sustainable development, and the U.S. can support these endeavors.

I appreciate the opportunity to testify before you today. Thank you for your time.

---

<sup>24</sup> Runde, 2020.