

COMMUN IX UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL (ECOSOC)

CONSERVATION OF THE AMAZON

Background Guide

INTRODUCTION

Dear Delegates,

We are honored to welcome you to COMMUN IX's General Assembly on the conservation of the Amazon, chaired by Dylan Sherry with co-chairs Bonnie Wang and Eli Denenberg. We look forward to sharing an engaging and exciting conference with you all!

The United Nations Economic and Social Council (ECOSOC) is a policy-making body of the United Nations, responsible for coordinating the economic and social components of the UN's mission. ECOSOC hosts a number of sessions such as this one, where delegates of UN member states meet to discuss specific international issues presented before them. In recent years, the effects of climate change and deforestation have brought the importance of conservation and ecologically mindful practices to the attention of ECOSOC and the world. As extreme weather events become even more frequent and ecosystem-wide extinctions more of a threat, it is imperative that the United Nations takes action to combat these pressing issues.

The purpose of this session is to discuss and create resolutions and policies to secure a biodiverse and sustainable future for the Amazon rainforest. In committee, each of you will represent a nation with stakes or expertise in the issue, and will participate on its behalf. Together, you will devise policies that address pertinent issues such as sustainable farming, protection of endangered species, and restoration and development of the Amazon. You may also focus on global concerns such as greenhouse gas emissions, pollution, and the rights of indigenous communities.

This committee requires that delegates submit a position paper in order to be eligible for awards. Position papers are an amazing opportunity to learn more about the country you will be representing, organize your research, and practice your writing skills. We've found that delegates who complete position papers are better prepared and can speak more knowledgeably during the conference, and, thus, are able to have a more meaningful COMMUN experience. If you have questions about this process or would like to see an example position paper, we encourage you to look at the <u>FAQ</u> and <u>Resources</u> pages on the COMMUN website.

If you have any questions about this background guide, external research, the position paper, or anything else related to this committee, please feel free to contact us via email. We look forward to hearing from you, and are excited to work with you on the day of the conference!

Sincerely,

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IMPORTANT DEFINITIONS

- Anthropogenic: Caused or affected by human activity.
- Biodiversity: The variety of life in the world or in a particular habitat or ecosystem. ¹
- Biosphere: *The parts of Earth where life exists.*²
- Carbon Sequestration: The removal and storage of carbon dioxide from the atmosphere.³
- Endemic: *Native to a specific region*.
- Fossil fuels: Carbon-based fuels such as natural gas, oil, and coal, often burned for energy and releasing greenhouse gasses in the process.
- Greenhouse Gasses: Gasses that trap heat in the atmosphere. 4 Carbon dioxide and methane, for example.

PROBLEM STATEMENT

Throughout the 20th and 21st centuries, deforestation, loss of biodiversity, and destructive farming practices have severely impacted much of the Amazon rainforest. As of 2018, an estimated 17 percent of the ecosystem had already been destroyed.⁵ The Amazon is not only the home of approximately five million different species of animals and plants, but also serves a vital role in the larger global biosphere.⁶ Known as "The Lungs of the Planet" by many, the Amazon rainforest sequesters over 150 billion metric tons of carbon, serving the critical role of locking away otherwise harmful greenhouse gasses in its vegetation and soil.⁷ Studies of the total economic value of the Amazon, including its natural resources, its global environmental effects, and the industries it supports, estimate the Amazon provides a shocking 280 billion dollars a year worth of economic value.⁸ The Amazon especially supports the millions of indigenous people who call it home. Action must be taken to prevent the destruction of the Amazon, both to maintain the vast economic and social benefits it provides humanity, and to protect the flora and fauna that call the rainforest home.

The goal of this committee will be to not only develop effective policy to ensure the future of the Amazon, but also to generalize these ideas towards worldwide sustainability efforts, in rainforests and beyond.

¹ Source: <u>National Park Service</u>

² Source: <u>National Geographic</u>

³ Source: Department of Energy

⁴ Source: Environmental Protection Agency

⁵ Source: <u>Time</u>

⁶ Source: <u>Tropical Rainforest Facts</u>

⁷ Source: <u>Scientific American</u>

⁸ Source: Economic value of the Brazilian Amazon rainforest...

GEOGRAPHY AND ECOLOGY

The Amazon rainforest in its entirety contains 1.6 billion acres (650 million hectares) of land in South America, stretching from the Andes mountains in the west to the Atlantic Ocean in the east. Eight nations contain parts of the Amazon rainforest: Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, Suriname, and France via the French territory of French Guiana. Roughly 60% of the Amazon is contained within the borders of Brazil, with 40% of Brazil's total landmass being covered by the Amazon. To the north, Suriname is almost entirely covered by the Amazon, boasting the highest percentage of forest cover of any nation in the world.

One of the most important features of the rainforest is the Amazon river, the largest river system in the world by volume and arguably the longest.¹² The river is made up of over a thousand tributaries, all of which flow through the Amazon basin. This basin makes up a significant portion of the rainforest, and stretches across South America, mostly through Brazil and Peru.¹³ The Amazon river provides freshwater, fish, and transportation to millions across South America. It also provides significant hydroelectric power to Brazil, through hundreds of dams, although these dams can severely harm the river's ecosystem.¹⁴





Figure 1. Amazon rainforest map. 15

Figure 2. Amazon river and basin map. 16

The Amazon rainforest is filled with an abundance of natural resources, many found nowhere else in the world. Over four billion trees from sixteen thousand different species make their home in the forest. Many of these species are now grown commercially around the world, or are harvested from the Amazon for human use: The rubber tree, which produces natural latex;

⁹ Source: World Wildlife Fund

¹⁰ Source: Encyclopedia Britannica

¹¹ Source: The Guardian

¹² Source: Real Life Lore

¹³ Source: Encyclopedia of World Geography

¹⁴ Source: Damming the rivers of the Amazon basin

¹⁵ Source: <u>BBC Science Focus</u>

¹⁶ Source: World Atlas

the cacao tree, for chocolate; tonka beans from *dipteryx odorata*; the açaí palm; Honduran mahogany, highly exploited for its lumber; the Brazil nut; and cinchona, the bark of which produces the anti-malarial substance quinine all originated in the Amazon. Other valuable plants from the Amazon include guaraná, used in some Brazilian sodas and cassava, one of the most cultivated staple crops in the world. The Amazon has been called the "world's largest pharmacy," since its highly diverse biosphere likely contains hundreds of plants with medicinal value, many of which have yet to be studied and utilized.¹⁷

The Amazon is also home to over 10% of Earth's animal species. Illegal hunting and poaching, however, threaten many of the Amazon's most recognizable species, including the jaguar, the spider-monkey, and the sloth, with extinction. The threat of extinction is even greater for lesser known and unknown species, since they often inhabit small ranges and can not receive adequate aid. A new species is discovered in the Amazon once every two days on average, so there is a great risk that an unknowable number of species will go extinct without us even discovering them.

Of course, describing the Amazon only in terms of its animal and plant diversity would neglect the great—though often marginalized—role Amazonian people have played in shaping the rainforest for thousands of years. Often conceived of as an untouched paradise, modern archaeological techniques have revealed that much of the purportedly untouched Amazon has actually been affected, both intentionally and accidentally, by indigenous tribes. Before the arrival of Europeans, millions lived in the Amazon, especially along the Amazon river, building vast urbanized areas in the jungle. Through controlled burnings and composting, these people turned the Amazon's naturally poor soil into *terra preta*, highly fertile "black earth," and grew corn, sweet potatoes, and cassava. Researchers estimate that 20% of the Amazon rainforest is anthropogenic. Researchers estimate that 20% of the Amazon rainforest is anthropogenic.

USES, THREATS, AND CONSERVATION EFFORTS

Over the past fifty years, the Brazilian government and private enterprises have significantly disrupted the existing Amazonian ecosystem by exploiting the rainforest's land and resources. Companies in China, the United States, and other developed nations have directly invested in the deforestation of the Amazon to make room for cattle ranching and soy plantations.²¹ Illegal logging and ranching operations and human-caused forest fires

Figure 3: Deforestation in Rondônia state, 1975–2005.

Source: Evidence That Deforestation Affects ... Rainy Season in Rondonia, Brazil

⁽a) 1975 (b) 1985

(c) 1995 (d) 2005

Forest Cerrado Deforestation

¹⁷ Source: National Park Service

¹⁸ Source: <u>Palotoa amazon travel</u>

¹⁹ Source: New York Times

²⁰ Source: BBC Unnatural Histories

²¹ Sources: National Geographic, The Atlantic

have also destroyed large areas of the forest. Randônia, a state in western Brazil, has experienced some of the worst deforestation, losing over 50 million acres (over 20 million hectares) of forests in the last 50 years and continuing to lose more.

Many South American countries like Brazil, Peru, and Bolivia have also been exploiting the land of the rainforest for transportation and infrastructure like dams and hydroelectric power plants. Though these are considered crucial for national development, the harm to the environment often outweighs any short-term economic gains. For example, these countries have constructed new roads or upgraded existing transport infrastructure in previously undeveloped regions, causing the spread of unsustainable extraction practices, land seizures from indigenous communities, and, of course, deforestation. Building dams for energy has also disrupted river connectivity and changed the natural water flow, which has altered the habitats of aquatic animals. These dams also create large man-made reservoirs, which can cause damaging flooding.

Brazil's Atlantic Forest, which once stretched across Brazil's Atlantic coast, serves as a warning for the Amazon if deforestation and development continue. It was once one of the largest and most biodiverse rainforests on the planet. However, countless human developments, including the megacities of Rio de Janeiro and São Paulo have utterly destroyed the forest, leaving only 10% of its original area in isolated patches. Now, many of the Atlantic Forest's tree endemic tree species are threatened with extinction²² and at least two native birds are considered extinct in the wild.²³

In addition to deforestation, climate change also poses an existential threat to the Amazon's biodiversity, natural resources, and ecosystem. As human-produced greenhouse gasses raise global temperatures, the Amazonian biosphere will become increasingly fragile. It's estimated that by 2050, average temperatures in the Amazon will have increased by four to five degrees Fahrenheit (two to three degrees Celsius). Global temperature shifts, likewise, may shift future weather patterns, leading to between a five and 25% decrease in precipitation in the Amazon. Such changes would devastate the rainforest ecosystem. Not only would they hurt the animal and plant species that call the Amazon home, but unmitigated climate change would also lead to decreased global agricultural productivity, potentially causing further conversion of rainforest into pasture and farmland.

Deforestation and destruction of the Amazon will also directly affect the planet's climate. Continued loss of trees in the region will release stored carbon into the atmosphere and reduce the Amazon's carbon sequestration capacity. Such a massive release of carbon from the Amazon will trap additional heat in the atmosphere, raising global temperatures. This, in turn, may cause further destruction to the Amazon, as described above, leading to the release of yet more carbon, in a vicious cycle of warming and deforestation. Some scientists have predicted that, because of the estimated 17 to 20% of the rainforest already destroyed in the last 50 years, we have already reached a critical point, beyond which climatic devastation has become almost inevitable, without significant global action.

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²² Source: ... High Extinction Risks Across Atlantic Forest Trees

²³ Source: <u>All.About.Nature</u> ²⁴ Source: <u>Carbon Brief</u>

The destruction of the Amazon is felt perhaps by none more than indigenous Amazonians, who today make up a sizable portion of the rainforest's human population. Most indigenous communities heavily rely on the Amazon for income, clothing, and medicine, and even those who live in urbanized areas are still dependent on the forest. The Brazilian government has designated thousands of regions in the Amazon as indigenous territories, protecting them from mining and logging. Illegal activities often encroach on these territories, however, threatening the safety and livelihoods of the communities within. Deforestation and mining activities also compromise people's living conditions, as they contribute to soil erosion and water contamination. The several dozen indigenous Amazonian tribes considered "uncontacted," meaning they are not formally integrated into broader society, are especially vulnerable to these illegal operations. Furthermore, without natural immunity, they have a high risk of death from diseases contracted from outsiders, illegally encroaching on their land.

Luckily, In recent years, ecological concerns have led to a significant amount of research into the most effective strategies for protecting the Amazon and similar ecosystems. The reduction of greenhouse gas emissions and carbon capture programs, government subsidies for environmentally conscious projects, and further government protections and enforcement around rainforests are all being utilized in an effort to protect the Amazon and other vulnerable ecosystems. The current Brazilian government, under president Lula da Silva, has committed to ending deforestation in the Amazon by 2030 and deforestation in the Brazilian Amazon has fallen dramatically in recent years. There are still significant hurdles to overcome, however, before deforestation ends in the Amazon. At a recent summit held by the Amazonian nations, for example, the countries were unable to commit to a united pledge to end deforestation.

QUESTIONS TO CONSIDER

While reading the country positions below, performing your own research, and writing your position paper, consider the following questions as tools to understand your country's stances and where you'll find common ground with other delegates.

- What is the value of the Amazon rainforest and similar global rainforests? Does their value come from their use to humanity or is there inherent worth in their existence?
- Who, if anyone, should profit from the Amazon? How should indigenous peoples, nations, and corporations get to use the rainforest?
- How do we balance the conservation of the Amazon's ecosystem with resource extraction and economic considerations?
- How much control should ECOSOC and the UN have over the fate of the Amazon?
- What can we learn from the treatment of other rainforests and ecosystems when approaching the Amazon?
- Conversely, what can we learn from the Amazon about how we should handle other areas and ecosystems?

- How can we define effective international policy around rainforests?
- What role should developed nations play in aiding developing nations in their conservation efforts?
- How can developing nations profit from their natural resources in a sustainable fashion?

COUNTRY POSITIONS

Amazonian Nations

• Bolivia, the most populous landlocked country in South America, contains 7.7% of the entire Amazon rainforest. Bolivia is unique in that it is the only country that contains the Amazon and is part of the Lithium Triangle, a small area containing over half the world's known lithium reserves. This means that Bolivia could become one of the world's major producers of lithium, which is essential for the lithium-ion batteries, which power the global clean energy economy. Lithium mining, however, comes with significant ecological risks. Bolivia must therefore weigh the country's economy and the global environment against its local environment and people.

Illegal deforestation in the Amazon also has a negative impact on Bolivia's economy and people, greatly depleting the ecological resources of the country. How should Bolivia manage and utilize its unique resources to solve these challenges—foreign and domestic.

- **Brazil** holds 60% of the entire Amazon rainforest within its borders, every natural resource in the rainforest is accessible to them, and the rainforest is a huge part of their national identity. Brazil is the country most directly impacted by problems affecting the Amazon rainforest and is the most able of any country to affect the forest through its domestic policies. How can Brazil make good on its promise to end deforestation in the Amazon and get other countries involved?
- Columbia contains the northwestern part of the Amazon, and contains 10% of the entire forest. Columbia has recently been very successful at limiting deforestation in their section of the forest, through sanctions on deforestors and monetary incentives. They continue to face challenges from illegal coca cultivation and an influx of Venezuelan refugees.
- **Ecuador** contains a significant portion of the Amazon rainforest with great biodiversity. The country itself is full of rare ecosystems and endemic species, such as in the Galapagos islands it controls. As such, Ecuador plays a major role in preserving global biodiversity and natural habitats. Recently, LIDAR scans have revealed massive ancient settlements in the Ecuadorian Amazon in the Upano Valley.
- France European former colonial-state, which still holds French Guiana. Uniquely situated as both a foreign rich country and a country with direct territorial stakes in the region. plays a unique role because it both controls territory in the Amazon via French

Guyana but it also has political influence in Europe and has access to significant resources.

- Guyana is a small South American nation located between Brazil, Venezuela, and Suriname. The Amazon rainforest located in Guyana is sometimes considered a separate rainforest, the Iwokrama forest, because of its unique species and ecosystem. In recent years, they have made efforts to help conserve its own rainforest by practices such as reducing carbon emissions. Guayana has also had border tensions with Venezuela for the past century, which have flared in recent years, as Venezuela claims two thirds of Guyana's sovereign territory. These tensions have been exacerbated by the discovery of massive oil reserves off the coast of Guyana, which hold the potential to make Guyana one of the richest countries in the Americas, but will also accelerate global warming. The development created by Guyana's oil boom, furthermore, may come at the expense of its vast forests, pitting conservation and development against each other.
- **Peru** is home to a significant portion of the Amazon rainforest, with approximately half of its land covered by these forests. Peruvians have been utilizing the resources of the rainforest for centuries, especially Peru's indigenous populations. In recent years, however, the government has allowed the exploitation of the rainforest for the expansion of industry, which has led to social and economic impacts on local communities. Beyond the Amazon, Peru is considered one of the most diverse nations on Earth, with ecosystems ranging from the towering Andes to the Atacama desert to mangrove forests.
- Suriname, located in the northeastern part of South America, also contains a significant part of the Amazon, and is the most heavily forested nation on Earth. They are rich in biodiversity, especially plants. The government has taken initiatives to preserve forests and wildlife, but just like many other South American countries, they have experienced legal and illegal exploitation of the rainforest as well. The nation's relationship with the Amazon is multifaceted, but it is worth noting that the country contains a large population of indigenous communities and that the country has committed to sustainable development, balancing economic growth with environmental conservation.
- Venezuela, which houses roughly 8% of the entire Amazon, has experienced heavy deforestation in recent years. While the environmental impact on the Amazon directly affects the country, Venezuela has also been plagued by extreme economic woes in recent years. Hyperinflation and economic shrinkage is present in Venezuela just as much as the problems of the rainforest are. Additionally, Venezuela has shown recent interest in taking over the Guyana Essequibo area, currently controlled by Guyana, in an effort to gain access to high quality oil fields and expand its resources and territory. Can Venezuela partner with foreign nations to improve its economic conditions and conserve its rainforests?

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²⁶ Source: Real Life Lore

²⁵ Source: <u>Guyanapnc.org</u>

Non-Amazonian Nations

- Argentina has faced decades of economic issues and corruption, leading voters to recently choose right-wing libertarian Javier Milei as president. As part of a larger effort to reduce the size of Argentina's government, Milei dissolved the Ministry of the Environment and Sustainable Development. Environmental advocates fear his deregulation policies and plans for increased lithium mining could hurt the environment and indigenous groups.²⁷ Can Argentina find international support for this unique approach to the environment and the economy?
- Australia has perhaps the most complex role of any nation in this committee. Australia is simultaneously a fully industrialized and wealthy country able to give aid, a nation with an extraction-based economy, a land with a unique ecological history resulting in many endemic species, and a megadiverse nation, with a variety of ecosystems including rainforests. Australia also has a complex history of colonization, ecosystem exploitation and destruction, and indigenous affairs.
- China plays a major role in the exploitation of the Amazon, as its industrialized economy must source natural resources and commodities from the Amazon and other resource-rich regions. They have historically invested heavily in deforestation efforts, in order to gain various resources, and in building up harmful infrastructure in the Amazon. The investments and interests of China will play a massive role in the future of the Amazon, for conservation or exploitation.
- Costa Rica is a stable Central American nation with rich biodiversity. Ecotourism makes up a large section of its economy. Costa Rica has an extensive system of conservation, including national parks, and has been making strides towards progressive policies in sustaining its nature. Could Costa Rica serve as a model for profiting off conservation?
- The **Democratic Republic of the Congo** (DRC) houses 60% of the second largest rainforest in the world, known as the Congolian rainforest. The Congolian rainforest is experiencing almost identical deforestation threats to the Amazonian and the biodiversity and size of these two rainforests are similarly immense. Unfortunately, the DRC is experiencing a starvation crisis among its people, its economy is weak, and the country is still reeling from atrocious Belgian colonialism and subsequent bloody civil wars—leaving conservation efforts on the back-burner. How can the DRC use its experiences and challenges with its rainforests to contribute to solving the problems at hand and advocate for receiving aid?
- **Spain** has significant colonial ties to many of the South American nations that contain the Amazon. As a developed country, it could perhaps help support both the environments and economies of its former colonies, as well as advocate on their behalf to other EU member states. Spain also faces environmental and health challenges of its own from increased global temperatures.

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²⁷ Source: The Guardian

- India's land is approximately a quarter forested, making these forests a valuable resource for the country. Their forest cover has grown gradually over the past decades, quite the accomplishment for the most populous country on Earth. As both a global superpower and a still-developing nation, India can both affect and support policies in other nations, as well as benefit from foreign aid.
- Indonesia holds the third largest tropical rainforest area of any nation in the world, behind only Brazil and the Democratic Republic of the Congo. Like the Amazon, these rainforests contain numerous endangered and important species, as well as vast sums of carbon sequestered in the trees. These rainforests, however, face critical threats, ranging from logging to the expanding palm oil industry. How can Amazonian nations benefit from learning the experiences of Indonesia? Will you be able to incorporate measures that address rainforests more broadly, including Indonesia's, into the committee's resolutions?
- Japan is a highly industrialized nation with significant economic resources and investment in sustainable technologies. With its access to capital and widespread implementation of environmentally conscious policy, Japan should seek to replicate its success and help strike a balance between economic and ecological concerns in the Amazon.
- Madagascar has been isolated from other landmasses for tens of millions of years, creating a unique biodiversity hotspot. Around 90% of all species in Madagascar are endemic. Madagascar is also one of the poorest nations on earth, within the bottom ten nations, as measured by GDP per capita.²⁸ This poverty has directly led to massive amounts of deforestation on the island, with many homes using forest wood for fuel. Madagascar faces, then, a more extreme version of the challenges pressing the Amazonian nations. How can Madagascar both protect its endemic species and environment and better the lives of its citizens?
- Mexico's land is over 30% forest and jungle, from temperate forests on the Baja California peninsula in the north, to tropical rainforests on the Yucatan peninsula in the south. For most of its modern history, Mexico has exploited its natural resources, including these forests, with few restrictions. Only recently has the government put significant effort into conservation, which has the potential to preserve and restore ecological balance in the country.
- The **Philippines**, a Pacific island nation, contains large tropical rainforests within its borders. These rainforests, however, have been devastated by illegal logging on the islands. As a developing country, the Philippines could take advantage of this committee to secure funding to help implement domestic environmental policy more effectively and combat illegal deforestation.
- Russia has by far the most forest cover of any nation on Earth, sequestering carbon in these forests and in the massive volume of permafrost in its tundra. Russia is essentially a petrostate, as its economy is heavily dependent on fossil fuel extraction. Isolated from the

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²⁸ Source: <u>International Monetary Fund</u>

West—even more so after its 2022 invasion of Ukraine—Russia may be looking for strategic partners and partnerships to bolster its international relevance and power

• **Rwanda** has had perhaps the most polar recent history of any country in this committee (perhaps in the world). Just thirty years ago, the country experienced one of the worst genocides in recent history, against the Tutsi minority. One of the key factors in the initial explosion of hostilities was a failing ecological and environmental system. As Jared Diamond notes in his book *Collapse*, by 1994, Rwanda was massively overpopulated and virtually all non-park land was being cultivated—completely destroying the natural environment—in increasingly tiny plots, using inefficient and unsustainable agricultural practices.

Today, although struggling, Rwanda is one of the safest and fastest growing nations in Africa, attempting to become a regional and global hub for business, commerce, and travel. Rwanda's past is a dark chapter in history, but its future may indeed be bright.

- Saudi Arabia is a textbook example of an extraction economy, with its massive planned economy entirely dependent on fossil fuels—although it's attempting to transition to other sources of revenue. Saudi Arabia boasts immense capital to spend on potential projects in the Amazon, but may be opposed to global efforts to reduce greenhouse gas emissions.
- The **United Kingdom** has the sixth largest economy on the planet, with a long history in international relations and industry. The UK could financially support sustainability efforts in the Amazon and other rainforests, and, now divorced from the EU, may wish to create long-term trade and economic partnerships in South America and around the globe.
- The United States of America has a complex history of supporting environmental improvements and conservation around the globe. On the one hand, the United States was the first nation to create national parks, and its funding has been key to support conservation in developing countries. On the other hand, United States companies have routinely exploited the Amazon and other vulnerable ecosystems for their resources, and the U.S. has had poor relations and histories with a number of developing nations. What is undoubtedly true is that the United States, as the world's largest economy and most powerful superpower, wields immense power over the fate of the Amazon, and may leverage this position to achieve its policy goals in the region.