



NHSMUN

CRISIS - BRAZILIAN CABINET

UPDATE PAPER

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Dear Delegates,

Welcome to the Brazilian Cabinet Crisis Committee! My name is Arjun Ghelani, and I will be your Assistant Director for Session I for NHSMUN 2025. This is my first year on staff, but my second year at the conference. Last year, I attended as a delegate for the UNSC. This year, I am looking forward to staffing a crisis and seeing how delegates react and respond to real-time changes that take place in the committee.

Located in Canada, I am a freshman at the University of Toronto planning to double major in Political Science and Criminology. I am passionate about some of the interconnected challenges our world faces. Specifically, I have been drawn to how social media has fostered spaces for radicalization and criminal behavior, as well as broader issues such as the prevalence of food insecurity. As a result of my interests, I am involved in volunteer work where I can engage with my local community, and I participate in research opportunities that allow me to spread awareness on topics I care about. Regarding my hobbies, I love to cook, listen to and talk about music, and watch soccer.

MUN has had a profound impact on my life in the last three years. To start with, there are so many people I have been able to meet during committee and in my high school's MUN club including some of my closest friends today. It has also been an opportunity that has allowed me to improve my confidence, communication, and critical thinking. Most importantly, I have always appreciated MUN for its ability to bring different perspectives together. We live in a world where there is a broad range of thoughts and ideas, and so I think it is important that we learn how to appropriately communicate and collaborate. Despite any differences, there may be in this committee, I hope you all will learn how to effectively collaborate to create effective solutions.

Alongside my Co-Assistant Director, Avril, we are very excited to bring you an Update Paper that contains recent information surrounding the Amazon Rainforest. We hope that you can use this information to enhance your knowledge on the topic and as potential inspiration for your solutions. I am excited to see what you all come up with!

Best,

Arjun Ghelani

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Brazilian Cabinet Assistant Director

Session I



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Hello Delegates,

I am so excited to be your Assistant Director for NHSMUN 2025. My name is Avril Wang Brown, and I will be your NHSMUN Session 2 AD. This will be my fourth year at NHSMUN - a conference that was a key part of my high school MUN journey at Irvington High School. I stuttered through my first-ever opening speech at NHSMUN 2022, attended my first-midnight crisis session at NHSMUN 2023, and brought home a plaque from NHSMUN 2024 by my senior year. Now, I am ecstatic about the opportunity to continue my NHSMUN journey as your Session 2 AD and help you grow along your own MUN journeys!

I was born and raised in the Bay Area, and I am currently a first-year student at the University of California, Davis, planning to double-major in Political Science and Economics. I am also involved at MUN in my school, and I will be chairing a committee on Chinese-Taiwanese tensions in May for those planning to attend DMUN! Outside of MUN, I enjoy singing, music, crocheting, and traveling! I am also a huge fan of cats, capybaras, and Chinese variety shows.

Regardless of your experience level and where you are on your MUN journey, I hope that you use NHSMUN as an opportunity to grow. In my opinion, crisis MUN is one of the most invaluable activities you can do in high school. Beyond public speaking, it teaches you how to read a room, network, navigate opposing interests, adapt to unexpected circumstances, and influence others. Whether you realize it or not, these skills carry over to countless aspects of your life and building them can take you far.

In writing this update paper, Arjun and I are covering topics we hope you can take into account when doing your research. We hope you guys are aware of existing resources and solutions and find it easy to build on them in a creative way to work towards conservation on the Amazon. Good luck with your research and feel free to reach out to us if you have any questions!

Best,

Avril Brown

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Brazil Crisis Assistant Director

Session II





CRISIS-BRAZILIANCABINET

NHSMUN 2025

**TOPIC A:
BATTLING TO SAVE THE AMAZON RAINFOREST**

Photo Credit: Neil Palmer

Introduction

The effects of climate change are impacting the Amazon. In 2023, the Amazon experienced a devastating drought that only worsened into 2024.¹ As a result of this drought, there have been harmful impacts on local wildlife, Indigenous communities, and sustainable industries. The drought also caused the water levels of major rivers to reach record lows. This has disrupted access to education, healthcare, and food supplies in communities that depend on these rivers for transportation.² This drought also cut off many communities' accesses to water. This highlights the lack of water infrastructure in Indigenous communities in the Amazon.³ In October of 2024, the Amazon finally received rainfall that ended a two-year-long dry season.⁴ While this has provided some temporary relief, it does not mean that the impacts of the drought can be forgotten. To recover, communities have had to embrace new programs to prepare for future droughts. This drought was made 30 times more likely due to climate change. Global temperatures are only expected to rise in recent years and future droughts will only become more frequent and severe.⁵ Communities must learn from this period of drought to create a blueprint for adapting to the effects of climate change that have already become unavoidable.

However, new conservation efforts show promise for the Amazon. The Amazon Seal Program aims to certify goods that come from approved areas in Brazil's Amazon and pushes producers to adopt better practices.⁶ Corporations seek to obtain the seal as this will aid them in competing in markets. A recent surge in Brazil's ecotourism has become a new method to protect the vital environment. It incentivizes the private sector to try to preserve the forest to allow people to experience it. This has helped the economy in rural areas grow. In 2023, Brazil's ecotourism sector generated USD 10.1 billion, and it is predicted to grow to USD 25.5 billion by 2030.⁷ This shows increased interest in ecotourism, which is also shown by the establishment of The Giant Trees of the Amazon State Park.⁸

Global aid for the Amazon rainforest is rising as well. Norway announced a USD 58.7 million donation to the Amazon Fund on November 17, 2024.⁹ This is a fund created to help combat deforestation in the Amazon Rainforest. On the same day, former US President Joe Biden visited the Amazon rainforest and announced USD 100 million for reforestation. Alongside this, he also launched a coalition to raise USD 10 billion for sustainable projects by 2030.¹⁰

Drought Conditions Worsen

The Amazon faced a destructive wildfire season in 2024. This was fueled by the dry conditions caused by an extreme

1 João Paulo Guimarães, "Extreme Drought Wrecks Rivers and Daily Life in Amazon's Most Burnt Indigenous Land," *Mongabay*, October 18, 2024, news.mongabay.com/2024/10/extreme-drought-wrecks-rivers-and-daily-life-in-amazons-most-burnt-indigenous-land/.

2 Fernanda Wenzel, "Extreme Drought Pushes Amazon's Main Rivers to Lowest-Ever Levels," *Mongabay*, September 11, 2024, news.mongabay.com/2024/09/extreme-drought-pushes-amazons-main-rivers-to-lowest-ever-levels/.

3 Tácia Muniz, "Acre's Communities Face Drinking Water Shortage Amid Amazon Drought," *Mongabay*, August 16, 2024, news.mongabay.com/2024/08/acres-communities-face-drinking-water-shortage-amid-amazon-drought/.

4 Roberto Samora, "Brazil Grain Barge Shipping Returns as Amazonian Drought Subsidies," *Reuters*, November 27, 2024, www.reuters.com/markets/commodities/brazil-grain-barge-shipping-returns-amazonian-drought-subsidies-2024-11-27/.

5 Carla Ruas, "Climate Change Made 2023 Amazon Drought 30 Times More Likely, Scientists Say," *Mongabay*, January 26, 2024, news.mongabay.com/2024/01/climate-change-made-2023-amazon-drought-30-times-more-likely-scientists-say/; "Drought," World Health Organization, accessed January 6, 2024, <https://www.who.int/health-topics/drought#>.

6 The Government of Brazil, "Presidential Decree Institutes Amazon Seal to Boost Regional Services, Products," *Planalto*, December 4, 2024, www.gov.br/planalto/en/latest-news/2024/12/presidential-decree-institutes-amazon-seal-to-boost-regional-services-products.

7 "Brazil Ecotourism Market Size & Outlook, 2030," Horizon Grand View Research, 2024, <https://www.grandviewresearch.com/horizon/outlook/ecotourism-market/brazil>; Horizon Grand View Research, "Brazil Ecotourism Market Size & Outlook, 2030".

8 "Giant Trees of the Amazon State Park Established in the Brazilian State of Pará," Andes Amazon Fund, October 16, 2024, <https://www.andesamazonfund.org/news-blog/giant-trees-of-the-amazon-state-park-established-in-the-brazilian-state-of-para/>.

9 Office of the Prime Minister, "Norway to Provide NOK 670 Million to Brazil Following Reduction in Deforestation in the Amazon," press release, November 17, 2024, <https://www.regjeringen.no/en/aktuelt/norway-to-provide-nok-670-million-to-brazil-following-reduction-in-deforestation-in-the-amazon/id3074888/>.

10 "FACT SHEET: President Biden Marks Historic Climate Legacy with Trip to Brazil's Amazon Rainforest," The White House, November 17, 2024, <https://www.whitehouse.gov/briefing-room/statements-releases/2024/11/17/fact-sheet-president-biden-marks-historic-climate-legacy-with-trip-to-brazils-amazon-rainforest/>.

drought in 2023. However, the 2023 drought has been surpassed by 2024's record-breaking dry season.¹¹ The drought has impacted 69 percent of municipalities in the Amazon compared to 56 percent within the same period in 2023.¹² This pattern would then indicate that 2025 would prove to be even more extreme. Many have pointed to El Niño to explain the severe 2023 drought. However, a report from the World Weather Attribution (WWA) found that the effects of climate change played a larger role.¹³ Global warming could cause severe droughts in the Amazon to become as frequent as once every 10-15 years.¹⁴

The Amazon is a complex biome. It is home to many species that are not found anywhere else in the world. Human activity has threatened the biodiverse ecosystems of the region by disrupting ecological cycles. This has caused many species to vanish over the past decade.¹⁵ Severe drought is now threatening to cause yet another species to vanish: the

Amazon river dolphins. The river dolphin population is often considered to be an indicator of river health in the basins they live in, and this decline of the river dolphin population is considered a strong warning for the ecosystem as a whole.¹⁶ The effect of drought conditions coupled with the hot dry season causes dangerously high river temperatures. These high temperatures were linked to over 120 river dolphin deaths in 2023. This is an estimated 10 percent of the total Amazon river dolphin population. This is a significant concern since the river dolphin has a low replacement rate of just 5 percent.¹⁷ These issues are made worse by the ongoing challenge of persistent drought conditions. This sparked much concern over the impact continuous drought conditions in 2024 may have on the Amazon river dolphin population and river basin ecosystems as a whole.

However, in 2024, no Amazon river dolphin deaths related to thermal stress were recorded.¹⁸ One possible explanation for

11 Guimarães, "Extreme Drought Wrecks Rivers and Daily Life in Amazon's Most Burnt Indigenous Land."

12 Muniz, "Acre's Communities Face Drinking Water Shortage."

13 Guimarães, "Extreme Drought Wrecks Rivers."

14 Ruas, "Climate Change Made 2023 Amazon Drought".

15 "The Amazon in Crisis: Forest Loss Threatens the Region and the Planet," World Wildlife Fund, accessed January 8, 2025, <https://www.worldwildlife.org/stories/the-amazon-in-crisis-forest-loss-threatens-the-region-and-the-planet>.

16 Alison Henry, "Freshwater Dolphins Species and Facts," World Wildlife Funds, last modified April 14, 2022, <https://www.worldwildlife.org/stories/freshwater-dolphin-species-and-facts>.

17 Bobby Bascomb, "Amazon Lakes Overheat as Record Drought Drives Dolphin Deaths," *Mongabay*, September 6, 2024, news.mongabay.com/short-article/amazon-lakes-overheat-as-record-drought-drives-dolphin-deaths/.

18 Bruno Kelly, "Death of Dolphins in Amazon Linked to Severe Drought, Heat," *Reuters*, October 3, 2023, <https://www.reuters.com/business/environment/mass-death-amazon-river-dolphins-linked-severe-drought-heat-2023-10-02/>.



Amazon River Dolphin

Credit: Austin R. Kelly

this could be that increased cloud cover prevented prolonged sunlight exposure.¹⁹ Despite this, 14 animal deaths in the Amazon were recorded in 2024. This includes eight pink dolphins, four tucuxis, and two manatees. All of these deaths showed signs of contact with human activities such as fishing, hunting, or collisions with boats. This is likely because the lower water levels as a result of drought made aquatic mammals more vulnerable to these adverse human activities.²⁰

The low water levels caused by the drought are also causing a humanitarian crisis in the Amazon. Lowered water levels have isolated communities from healthcare, education, and food supplies.²¹ This isolation comes from the fact that many local communities rely on these rivers as their main method of transportation. When the rivers dried up due to prolonged drought, communities became cut off from access to food, medicine, fresh water, and commerce. In the Munduruku Indigenous Territory, the 2024 drought cut off access to clean water sources. This forced Indigenous people to source their water from larger rivers such as the Tapagós. These longer rivers have been polluted with mercury by mining activity. The increased mercury exposure caused those who drank the water to experience health problems.²²

Towards the end of 2024, the Amazon has started to come out of the recent devastating dry season.²³ Unfortunately, the arrival of the wet season will not be enough to offset the dry season prior.²⁴ The rainfall volumes towards the end of the year were expected to be about 50 percent lower.²⁵ Although rivers are beginning to return, the water levels are still below

normal. The increased waters will allow for transporting corn and soybeans through the Amazon's waterways. This will help lower costs as shipping no longer needs to be diverted through southern ports and will help the recovery of the forest's industries.²⁶ Soybeans in particular are of vital importance to the Brazilian economy as its largest export. In 2023, soybean exports contributed nearly USD 53 Billion to the Brazilian economy.²⁷ The fact that the long dry season has come to an end is a great relief. However, the long-term impacts of the extended drought remain unclear.²⁸ Climate change will only cause droughts to become more severe and frequent. The effects of the 2023-2024 drought show how current water infrastructure is inadequate to deal with the harsh and unpredictable conditions brought on by climate change.²⁹ Without meaningful actions, the effects of the past will only continue to occur, with increasing frequency as climate change's effects worsen.

A case study that could help give insight into how local water infrastructure can be improved is the Panorama community in Rio Branco, located in the state of Acre. This community has attempted to address water shortages in this time of extreme drought. They did so by building water tankers to harvest rainwater and digging wells to access deeper groundwater. However, current water stores are not enough. Digging deeper wells further into groundwater stores is both expensive and technically complex. That makes it difficult for rural communities to take on such projects.³⁰ Efforts to improve water infrastructure in the Amazon could start with

19 Mayala Fernandes, "The Uncertain Future of Amazon River Dolphins Amid Historic Drought," *Mongabay*, December 6, 2024, <https://news.mongabay.com/2024/12/the-uncertain-future-of-amazon-river-dolphins-amid-historic-drought/>.

20 Fernandes, "The Uncertain Future of Amazon River Dolphins," "Dolphins Dying Again in Amazon Lake Made Shallow by Drought," *Reuters*, September 20, 2024, <https://www.reuters.com/business/environment/dolphins-dying-again-amazon-lake-made-shallow-by-drought-2024-09-19/>.

21 Wenzel, "Extreme Drought Pushes Amazon's Main Rivers to Lowest-Ever Levels," UNICEF, "Over 420,000 Children Affected by Record-Breaking Drought in the Amazon Region," news release, June 1, 2024, www.unicef.org/press-releases/over-420000-children-affected-record-breaking-drought-amazon-region.

22 Fernanda Wenzel, "Drought Forces Amazon Indigenous Communities to Drink Mercury-Tainted Water," *Mongabay*, September 5, 2024, <https://news.mongabay.com/2024/09/drought-forces-amazon-indigenous-communities-to-drink-mercury-tainted-water/>.

23 Carrie Kahn, "Rain is Finally Coming to the Drought-Stricken Amazon. But it may not be enough," *NPR*, October 30, 2024, <https://www.npr.org/2024/10/30/nx-s1-5153428/amazon-drought-brazil-river-climate-change>.

24 Robson Rodriguez, "Wet Season Won't Reverse Water Deficit in Amazon Basin, Experts Warn," *Valor International*, October 11, 2024, <https://valorinternational.globo.com/environment/news/2024/10/11/wet-season-wont-reverse-water-deficit-in-amazon-basin-experts-warn.ghtml>.

25 Shanna Hanbury, "Water Returns to Amazon Rivers Amid Historic Drought," *Mongabay*, December 12, 2024, <https://news.mongabay.com/short-article/water-returns-to-amazon-rivers-drought/>.

26 Samora, "Brazil Grain Barge Shipping Returns."

27 Most Exported Products Brazil 2019, n.d.

28 Hanbury, "Water Returns to Amazon Rivers."

29 World Health Organization, "Drought."

30 Tácita Muniz, "Acre's Communities Face Drinking Water Shortage Amid Amazon Drought," *Mongabay*, August 16, 2024, <https://news.mongabay.com/2024/08/16/acres-communities-face-drinking-water-shortage-amid-amazon-drought/>.

funding more of these small-scale projects to naturally harvest rainwater in local communities.

In 2022, Brazil formed the Water Task Force to bring water to people from areas historically affected by drought. They did so by building wells, cisterns, supply systems, and desalination plants. This Task Force managed to permanently provide 1.5 million Brazilians with a regular water supply by the end of 2022.³¹ This project could serve as a model for a future large-scale effort to invest in small-scale projects across Indigenous communities. Another innovative type of small-scale project could involve building rain gardens and bioretention areas to collect stormwater runoff. This will allow the rain to slowly soak into the ground.³² However, further large-scale projects are needed to improve climate resilience in the long run. Climate resilience is a community's ability to anticipate, prepare for, and respond to the effects of climate change. Strengthening local infrastructure will prepare communities for the isolation and water shortages that they could face in the future. Some examples of long-term solutions could be building large-scale artificial reservoirs and investing in groundwater injection technologies.³³

Periods of prolonged drought have caused groundwater stores to be depleted. This is due to groundwater aquifers being depleted faster than they could be refilled. Depleting groundwater leads to a lower water table which causes many wells to dry up or lose access to clean groundwater.³⁴ An expensive but effective solution to this issue could be to artificially recharge groundwater stores. This is done by redirecting water across land surfaces or using injection wells to directly inject water underground.³⁵ This is a promising

method that has yet to be implemented on a large scale. The high marginal cost of tens of millions per kilometer cubed of groundwater injected makes it difficult to do.³⁶ However, these expensive projects may become necessary with the weather becomes more unpredictable. Another type of large-scale water infrastructure project could involve restoring watersheds by planting and safeguarding forests. The Water Fund of São Paulo has taken on this type of project in the past. The Water Fund worked with the Water Resilience Coalition of the United Nations Global Compact to plant and safeguard forests that filter water and protect streamflow in São Paulo. Ministers can consider investing in similar restoration projects in the Amazon.³⁷

Transportation infrastructure may also need to be strengthened to prepare for more frequent droughts. This specifically refers to railways and airports to move goods and people. Low water levels during droughts can isolate communities, causing them to be cut off from medical facilities and preventing children from attending school.³⁸ Potential solutions may include creating an infrastructure that connects these isolated communities to make sure populations are not cut off from the rest of the country. However, infrastructure like this could make the forest more accessible to loggers and others looking to exploit the rainforest's resources. Scientists have also found that deforestation makes a region more vulnerable to drought by reducing the capacity of forests to retain water.³⁹ A study by Brazil's space agency found that deforesting 37 percent of an area caused a 34 percent decrease in precipitation.⁴⁰ This shows how the effects of deforestation can worsen the impacts of climate change even further. This is why using conservation efforts to mitigate deforestation must be a priority of this

mongabay.com/2024/08/acres-communities-face-drinking-water-shortage-amid-amazon-drought/.

31 "Brazil Takes Actions to Ensure Water Security," The Government of Brazil, accessed January 8, 2025, <https://www.gov.br/en/government-of-brazil/latest-news/2022/get-to-know-the-water-task-force>.

32 "Prepare for Drought," Environmental Protection Agency, accessed January 8, 2025, <https://www.epa.gov/green-infrastructure/prepare-drought>; "Types of Green Infrastructure," Environmental Protection Agency, accessed January 8, 2025, <https://www.epa.gov/green-infrastructure/types-green-infrastructure>.

33 Environmental Protection Agency, "Prepare for Drought."

34 Muniz, "Acre's Communities Face Drinking Water Shortage Amid Amazon Drought."

35 "Artificial Groundwater Recharge," United States Geological Survey, accessed December 21, 2024, <https://www.usgs.gov/mission-areas/water-resources/science/artificial-groundwater-recharge>.

36 Georgios Kourakos, Giuseo Brunetti, Daniel P. Bigelow, Steven Wallander, Helen E. Dahlke, "Optimizing Managed Aquifer Recharge Locations in California's Central Valley Using an Evolutionary Multi-Objective Genetic Algorithm Coupled with a Hydrological Simulation Model," *Water Resources Research* 59, no. 5 (May 10, 2023), <https://doi.org/10.1029/2022WR034129>.

37 "IMPACT STORY: Collective Action Brings Clean Fresh Water to Millions in Brazil," United Nations Global Compact, accessed January 8, 2025, <https://unglobalcompact.org/take-action/impact/collective-action-brings-clean-fresh-water-to-millions-in-brazil>.

38 UNICEF, "Over 42000 Children Affected by Record-Breaking Drought in the Amazon Region."

39 Ruas, "Climate Change Made 2023 Drought."

40 Wendel, "Extreme Drought Pushes Rivers."

committee.

Recent Conservation Efforts

Recently, there have been many conservation efforts in Brazil that have focused on promoting economic growth and long-term conservation. This is shown through both the Amazon Seal Program and the rise in ecotourism. Globally, many countries have recently provided support against the spread of deforestation in the Amazon region. The combination of these efforts is crucial in the broader fight to preserve the Amazon.

On December 2, 2024, the Amazon Seal Program was signed by President Lula and Vice President Geraldo Alckmin.⁴¹ The seal aims to certify goods that come out of authorized areas of the Amazon and meet the guidelines of the program.⁴² Producers of these goods are motivated to adhere to the seal since this allows them to promote the usage of sustainable products. Additionally, they will be able to compete in national and global value chains.⁴³ Global value chains are when the production of a good is broken into tasks that are carried out in various countries.⁴⁴ The program also states that products will not receive the Amazon seal under three rules. First, if they openly or secretly encourage cutting down trees. Second, if they harm the Amazon's native forests. Last, if they threaten wildlife or violate animal rights.⁴⁵ The requirements for a product to receive the Amazon seal will be set by a government body in collaboration with outside groups.⁴⁶ This includes input from the manufacturing sector and the traditional communities in the Amazon. The program also prioritizes collaboration with Indigenous people. This is

to acknowledge their existing knowledge and preservation of the Amazon.⁴⁷

Ecotourism can also boost both nature protection and economic growth in the Amazon. It can be defined as a sustainable nature-based approach to travel.⁴⁸ The approach has been also used to support local communities, which is done through the income it generates. In addition to this, ecotourism can educate visitors on the culture and history of the land. In recent months, the ecotourism market has been growing. In 2023 alone, Brazil's ecotourism market generated approximately USD 10.1 billion in revenue.⁴⁹ Forecasts also predict the market to reach approximately USD 25.5 billion by 2030.⁵⁰ Currently, Ecotourism contributes a mere 0.46 percent to Brazil's Gross Domestic Product (GDP).⁵¹ In the future, it is projected to grow at roughly 16.6 percent between 2025 and 2030.⁵² GDP is the total value of all goods and services produced in a country and is used to understand the strength of a country's economy. Further, the data suggests that ecotourism in Brazil has received an increase in interest among tourists. Additionally, since tourist interest is reflected in where their money is spent, there is a correlation between the growth of ecotourism and the increase in the interest of tourists.

The prior success of the ecotourism industry in other areas of the Amazon can highlight the success of this in the Brazilian region of the Amazon. For example, a 2018 study was conducted in the Peruvian region of the Amazon, aiming to examine how lucrative ecotourism was. This was measured by comparing it to other uses of the land.⁵³ The results showed that practices such as logging were more profitable in the short

41 The Government of Brazil, "Presidential Decree Institutes Amazon Seal to Boost Regional Services, Products," Planalto, December 4, 2024, <https://www.gov.br/planalto/en/latest-news/2024/12/presidential-decree-institutes-amazon-seal-to-boost-regional-services-products>.

42 The Government of Brazil, "Presidential Decree Institutes Amazon Seal to Boost Regional Services, Products."

43 The Government of Brazil, "Presidential Decree Institutes Amazon Seal to Boost Regional Services, Products."

44 Adnan Seric and Yee Siang Tong, "What Are Global Value Chains and Why Do They Matter?," *Industrial Analytics Platform*, August 3, 2019, <https://iap.unido.org/articles/what-are-global-value-chains-and-why-do-they-matter>.

45 "Amazon Seal Program Created to Boost Services and Products in the Legal Amazon," Trench Rossi Watanabe, December 6, 2024, <https://www.trenchrossi.com/en/legal-alerts/amazon-seal-program-created-to-boost-services-and-products-in-the-legal-amazon/>.

46 The Government of Brazil, "Presidential Decree Institutes Amazon Seal".

47 The Government of Brazil, "Presidential Decree Institutes Amazon Seal".

48 TSOM Team, "What Is Ecotourism and Why Is It Important?" *Toronto School of Management*, January 21, 2019, <https://www.torontosom.ca/blog/what-is-ecotourism-and-why-is-it-important>.

49 Horizon Grand View Research, "Brazil Ecotourism Market Size & Outlook, 2030".

50 Horizon Grand View Research, "Brazil Ecotourism Market Size & Outlook, 2030".

51 "Brazil Datasets," International Monetary Fund, accessed January 3, 2025, <https://www.imf.org/external/datamapper/profile>.

52 Horizon Grand View Research, "Brazil Ecotourism Market Size & Outlook, 2030".

53 Aiden O'Gara, "The Economics Of Ecotourism: Private Profits And Social Benefits," *Faunalytics*, November 30, 2018, <https://faunalytics.org/the-economics-of-ecotourism-private-profits-and-social-benefits/>.



President Lula working alongside Indigenous leaders.
Credit: Apib Comunicação

run. After five years, ecotourism became the most profitable usage of land. This is primarily due to the finite amount of resources available, which makes the practice unsustainable. Following the successful example in Peru, Brazil created a new park, in September 2024, naming it “The Giant Trees of the Amazon State Park”.⁵⁴ This is because the park holds the tallest trees in the tropical Americas. Tall trees are crucial to regulating the climate as they can store more carbon that would otherwise be released into the atmosphere.⁵⁵ These specific trees can hold the carbon stock of 500 average-sized trees, a crucial reason why it must be protected.⁵⁶ Additionally, the area was established as an ecotourism destination, to generate income safely, as opposed to the harmful nature of logging.⁵⁷ This money will then be invested into the park’s surrounding communities.⁵⁸ While the ecotourism sector of the park has not brought income into the park yet, this Peruvian study nonetheless demonstrates ecotourism’s profitability in the Amazon region. This can be used to support similar analyses to support the model of the park.

While it may seem wise to get rid of extraction, it is important to recognize that Amazon is lucrative for mining companies. This is due to the land’s mineral wealth and raw materials, which serve a vital role in fueling other sectors.⁵⁹ Thus, it is very difficult to defend the replacement of these practices with ecotourism. However, the establishment of Brazil’s new park suggests that expansion into the ecotourism industry can have a purpose. First, it serves as a means to conserve forestry which is vital for regulating the climate. It is also a long-term, sustainable use of the Amazon.

Recently, there has also been new international support for the Amazon. On November 17, 2024, Norway’s Prime Minister Jonas Gahr Støre announced that it would be providing USD 58.7 million. This money is aimed towards Brazil’s Amazon Fund.⁶⁰ The purpose of the fund is to combat deforestation efforts in the Amazon region. One of the ways is to establish conservation projects. Norway is recognized as a persistent donor of the fund. Its efforts were connected to Brazil’s 31

54 Andes Amazon Fund, “Giant Trees of the Amazon State Park Established in the Brazilian State of Pará”.

55 “How Old Forests Help Fight Climate Change,” Environment America, February 13, 2023, <https://environmentamerica.org/articles/how-old-trees-help-fight-climate-change/>.

56 Andes Amazon Fund, “Giant Trees of the Amazon State Park Established in the Brazilian State of Pará”.

57 Shanna Hanbury, “Brazil Upgrades Park to Protect Amazon’s Tallest Tree, Allows Tourism,” *Mongabay*, October 14, 2024, <https://news.mongabay.com/short-article/brazil-upgrades-park-to-protect-amazons-tallest-tree-allows-tourism/>.

58 Shanna Hanbury, “Brazil Upgrades Park to Protect Amazon’s Tallest Tree, Allows Tourism”.

59 Timothy J. Killen, “Industrial Minerals in the Pan Amazon,” *Mongabay*, July 12, 2024, <https://news.mongabay.com/2024/07/more-industrial-minerals-on-brazils-borders-with-ecuador-venezuela-and-colombia/>.

60 Office of the Prime Minister, “Norway to Provide NOK 670 Million to Brazil”.

percent reduction in deforestation in 2023.⁶¹ On the same day, former President Joe Biden became the first US President to visit the Amazon rainforest.⁶² There, he spoke with the Indigenous and other leaders. During this, he announced the US's new efforts to protect the Amazon. This included USD 100 million for reforestation projects in the region of Pará.⁶³ Additionally, he announced the creation of a new coalition. The project aims to raise at least USD 10 billion by 2030 for sustainable projects in the Amazon.⁶⁴ It will first focus on restoring 5.5 million hectares of land and reducing emissions in the area. USD 500 million alone will also be to help the Indigenous and local communities.⁶⁵ Similar to national efforts, these aim to balance forest protection with new economic opportunities for the people living in the Amazon. Overall, Norway and the US's recent support highlights the importance of fostering international support in conservation efforts.

Conclusion

There has been much action taken to improve conservation in the Amazon. However, it is still necessary to implement more innovative solutions going forward. When implementing new solutions, these solutions must incorporate diverse groups in their solutions. The Indigenous peoples in the Amazon have centuries of experience protecting the land, and their knowledge can prove important when developing new solutions. Solutions should also consider the importance of foreign aid and how they might secure it going forward. Globally, Norway and the US have provided significant funding for preserving the Amazon rainforest due to the

Amazon's important role in global conservation. However, aid from the United States and Norway is not guaranteed to continue. Ministers may have to look elsewhere for funding in the future.

Despite the progress made with conservation efforts, much of the damage done by climate change is irreversible. Recent droughts have revealed how health and water infrastructure in Indigenous communities in the Amazon are lacking, and it will be essential to invest in infrastructure to increase the resilience of communities and better prepare them for future droughts. Drought conditions in 2023 also created prime conditions for the 180,000 fires in 2024 which destroyed nearly 30 million acres.⁶⁶ Similar drought conditions in 2024 will likely fuel destructive wildfires in 2025 as drought dries out vegetation and causes it to become more flammable.⁶⁷ With this in mind, ministers should place high importance on finding ways to prepare for the wildfire season. This can be done using fire management techniques such as controlled burns to clear dry vegetation. Ministers should make efforts to increase the penalty for arson in the Amazon, as President Lula has previously sworn to do.⁶⁸ A proposal to increase the maximum sentence for forest arson to 18 years was submitted in September by the Ministry of Justice and Public Security.⁶⁹ There has been some pushback to this, however. Some argue the crime is not proportionate to the sentence of 18 years which can exceed penalties for serious crimes such as homicide.⁷⁰

While forest loss dropped 30.6 percent compared to last year, the Amazon is still reaching dangerously close to a point of no return of Amazon destruction.⁷¹ This point of no return is the point at which the rainforest would become unable to

61 Office of the Prime Minister, "Norway to Provide NOK 670 Million to Brazil".

62 Gabriela Sá Pessoa, Ammer Madhani, and Colleen Long, "Joe Biden Becomes First Sitting US President to Visit Amazon Rainforest," *Associated Press*, November 17, 2024, <https://apnews.com/article/biden-amazon-peru-g20-3cc827382d1e3c32865a14616ddfe467>.

63 Ana Ionova and Michael D Shear, "Biden Visits Amazon, Vowing Help to Fight Climate Change," *The New York Times*, November 17, 2024, <https://www.nytimes.com/2024/11/17/world/americas/biden-amazon-climate.html>.

64 Ionova and Shear, "Biden Visits Amazon, Vowing Help to Fight Climate Change."

65 Ionova and Shear, "Biden Visits Amazon, Vowing Help to Fight Climate Change."

66 Aicha El Hammar Castano and Julia Jacobo, "Brazil Experiences Record-Breaking Wildfires as Persistent Drought Affects the Amazon Rainforest," *ABC News*, September 15, 2024, <https://abcnews.go.com/International/brazil-experiencing-record-breaking-wildfires-persistent-drought-affects/story?id=113688151>.

67 Jeremy S. Littell, David L. Peterson, Karin L. Riley, Yongquiang Liu, and Charles H. Luce, "A Review of the Relationships Between Drought and Forest Fire in the United States," *Global Change Biology* 22, (2016): 2353-60, <https://doi.org/10.1111/gcb.13275>.

68 Castano et al., "Brazil Experiences Record-Breaking Wildfires."

69 Arkady Petrov, "Brazilian Bill Equates Forest Arson with Murder in Sentencing Severity," *The Rio Times*, September 26, 2024, <https://www.riotimesonline.com/brazilian-bill-equates-forest-arson-with-murder-in-sentencing-severity/>.

70 Petrov, "Brazilian Bill Equates Forest Arson with Murder."

71 Steven Grattan, "Drought, Fires, and Deforestation Battered Amazon Rainforest in 2024," *Associated Press*, December 28, 2024, <https://apnews.com/article/amazon-rainforest-brazil-colombia-peru-venezuela-deforestation-fcf8dd6e6816ca6719e16f310000ca84>.

sustain itself, causing the rainforest to convert itself to a drier forest or savannah biome.⁷² The risk of reaching this point highlights the urgency of the situation in the Amazon. Rather than being satisfied with continuing the progress that has been made so far, further aggressive action toward conservation and restoration is necessary to prevent the Amazon's collapse. As ministers, you all have a crucial role to play in preventing this collapse, and through innovative ideas, collaboration, and timely thinking, you can contribute to saving the largest rainforest in the world.

⁷² Stephen Eisenhammer, "The Amazon's Little Tipping Points," *Reuters Investigates*, October 21, 2021, <https://www.reuters.com/investigates/special-report/climate-un-amazon-tipping-point/>.

Works Cited

UN Sources

- Convention on International Trade in Endangered Species of Wild Fauna and Flora. "Pirarucu Harvesting and Trade in Brazil." Accessed January 8, 2025. <https://cites.org/eng/prog/livelihoods>.
- UNICEF. "Over 420,000 Children Affected by Record-Breaking Drought in the Amazon Region." News release, November 6, 2024. www.unicef.org/press-releases/over-420000-children-affected-record-breaking-drought-amazon-region.
- United Nations Global Compact. "IMPACT STORY: Collective Action Brings Clean Fresh Water to Millions in Brazil," United Nations Global Compact." Accessed January 8, 2025.

Non-UN Sources

- Andes Amazon Fund. "Giant Trees of the Amazon State Park Established in the Brazilian State of Pará," October 16, 2024. <https://www.andesamazonfund.org/news-blog/giant-trees-of-the-amazon-state-park-established-in-the-brazilian-state-of-para/>.
- Bascomb, Bobby. "Amazon Lakes Overheat as Record Drought Drives Dolphin Deaths." Mongabay. September 6, 2024. news.mongabay.com/short-article/amazon-lakes-overheat-as-record-drought-drives-dolphin-deaths.
- Business Wire. "Veeva, O.N.E. Amazon, and AECOM Collaborate to Create the Internet of Forests (IoF), a Hybrid Edge-Cloud Computing Solution to Protect the Rainforest Biome and Empower Local Communities." News release, October 28, 2024. <https://www.businesswire.com/news/home/20241028740049/en/Veeva-O.N.E.-Amazon-and-AECOM-Collaborate-to-Create-the-Internet-of-Forests-IoF-a-Hybrid-Edge-Cloud-Computing-Solution-to-Protect-the-Rainforest-Biome-and-Empower-Local-Communities>.
- Cardin, Adele. "Brazil's Tourism Surge: \$169.3 Billion Boost in 2024." The Rio Times, May 30, 2024. <https://www.riotimesonline.com/brazils-tourism-boom-169-3-billion-boost-in-2024/>.
- Castano, Aicha El Hammar, and Julia Jacobo. "Brazil Experiences Record-Breaking Wildfires as Persistent Drought Affects the Amazon Rainforest." ABC News. September 15, 2024. <https://abcnews.go.com/International/brazil-experiencing-record-breaking-wildfires-persistent-drought-affects/story?id=113688151>.
- DeMarco, Emily. "NASA Data Shows How Drought Changes Wildfire Recovery in the West." NASA. March 27, 2024. <https://science.nasa.gov/earth/nasa-data-shows-how-drought-changes-wildfire-recovery-in-the-west/>.
- Reuters. "Dolphins Dying Again in Amazon Lake Made Shallow by Drought." September 20, 2024. www.reuters.com/business/environment/dolphins-dying-again-amazon-lake-made-shallow-by-drought-2024-09-19/.
- Environment America. "How Old Forests Help Fight Climate Change," February 13, 2023. <https://environmentamerica.org/articles/how-old-trees-help-fight-climate-change/>.
- Eisenhammer, Stephen. "The Amazon's Little Tipping Points." Reuters Investigates. October 21, 2021. <https://www.reuters.com/investigates/special-report/climate-un-amazon-tipping-point/>.
- Fernando, Jason. "Compound Annual Growth Rate (CAGR) Formula and Calculation." Investopedia, November 12, 2024. <https://www.investopedia.com/terms/c/cagr.asp>.
- Fernandes, Mayala. "The Uncertain Future of Amazon River Dolphins Amid Historic Drought." Mongabay. December 6, 2024. news.mongabay.com/2024/12/the-uncertain-future-of-amazon-river-dolphins-amid-historic-drought/.
- The Government of Brazil. "Brazil Takes Actions to Ensure Water Security." Accessed January 8, 2025. <https://www.gov.br/en/government-of-brazil/latest-news/2022/get-to-know-the-water-task-force>.
- The Government of Brazil. "Presidential Decree Institutes Amazon Seal to Boost Regional Services, Products." Planalto, December 4, 2024. <https://www.gov.br/planalto/en/latest-news/2024/12/presidential-decree-institutes-amazon-seal-to>

boost-regional-services-products.

- Grattan, Steven. "Drought, Fires, and Deforestation Battered Amazon Rainforest in 2024." Associated Press. December 28, 2024. <https://apnews.com/article/amazon-rainforest-brazil-colombia-peru-venezuela-deforestation-fcf8dd6e6816ca6719e16f310000ca84>.
- Guimarães, João Paulo. "Extreme Drought Wrecks Rivers and Daily Life in Amazon's Most Burnt Indigenous Land." Mongabay. October 18, 2024. news.mongabay.com/2024/10/extreme-drought-wrecks-rivers-and-daily-life-in-amazons-most-burnt-indigenous-land/.
- Hanbury, Shanna. "Brazil Upgrades Park to Protect Amazon's Tallest Tree, Allows Tourism." Mongabay, October 14, 2024. <https://news.mongabay.com/short-article/brazil-upgrades-park-to-protect-amazons-tallest-tree-allows-tourism/>.
- Hanbury, Shanna. "Water Returns to Amazon Rivers Amid Historic Drought." Mongabay. December 12, 2024. <https://news.mongabay.com/short-article/water-returns-to-amazon-rivers-drought/>.
- Henry, Alison. "Freshwater Dolphins Species and Facts." World Wildlife Fund. Last modified April 14, 2022. <https://www.worldwildlife.org/stories/freshwater-dolphin-species-and-facts>.
- Horizon Grand View Research. "Brazil Ecotourism Market Size & Outlook, 2030," 2024. <https://www.grandviewresearch.com/horizon/outlook/ecotourism-market/brazil>.
- International Monetary Fund. "Brazil Datasets". Accessed January 3, 2025. <https://www.imf.org/external/datamapper/profile>.
- Ionova, Ana, and Michael D Shear. "Biden Visits Amazon, Vowing Help to Fight Climate Change." The New York Times, November 17, 2024. <https://www.nytimes.com/2024/11/17/world/americas/biden-amazon-climate.html>.
- Khan, Carrie. "Rain is Finally Coming to the Drought-Stricken Amazon. But it may not be enough." NPR. October 30, 2024, <https://www.npr.org/2024/10/30/nx-s1-5153428/amazon-drought-brazil-river-climate-change>.
- Kelly, Bruno. "Death of Dolphins in Amazon Linked to Severe Drought, Heat." Reuters. October 3, 2023. www.reuters.com/business/environment/mass-death-amazon-river-dolphins-linked-severe-drought-heat-2023-10-02/.
- Killeen, Timothy J. "Industrial Minerals in the Pan Amazon." Mongabay, July 12, 2024. <https://news.mongabay.com/2024/07/more-industrial-minerals-on-brazils-borders-with-ecuador-venezuela-and-colombia/>.
- Kourakos, Georgios, Giuseo Brunetti, Daniel P. Bigelow, Steven Wallander, and Helen E. Dahlke. "Optimizing Managed Aquifer Recharge Locations in California's Central Valley Using an Evolutionary Multi-Objective Genetic Algorithm Coupled with a Hydrological Simulation Model." *Water Resources Research* 59, no. 5 (May 10, 2023). <https://doi.org/10.1029/2022WR034129>.
- Littell, Jeremy S., Peterson, David L., Riley, Karin L., Liu, Yongquiang, and Luce, Charles H. "A Review of the Relationships Between Drought and Forest Fire in the United States." *Global Change Biology* 22, (2016): 2353-69. <https://doi.org/10.1111/gcb.13275>.
- Maisonnave, Fabiano. "Severe Droughts Threaten the Sustainable Catch of the Amazon's Giant Fish." Associated Press. November 9, 2024. apnews.com/article/amazon-drought-brazil-fishing-sustainable-pirarucu-climate-511ce3090c8a21202f04bfd9829d4d32.
- "Most Exported Products Brazil 2019." n.d. Statista. <https://www.statista.com/statistics/1191541/products-exported-from-brazil/>.
- Muniz, Tácia. "Acre's Communities Face Drinking Water Shortage Amid Amazon Drought." Mongabay. August 16, 2024. news.mongabay.com/2024/08/acres-communities-face-drinking-water-shortage-amid-amazon-drought/.
- Office of the Prime Minister. "Norway to Provide NOK 670 Million to Brazil Following Reduction in Deforestation in the Amazon." *Pressemelding*. regjeringen.no, November 17, 2024. <https://www.regjeringen.no/en/aktuelt/norway-to-provide-nok-670-million-to-brazil-following-reduction-in-deforestation-in-the-amazon/id3074888/>.
- O'Gara, Aiden. "The Economics of Ecotourism: Private Profits And Social Benefits." *Faunalytics*, November 30, 2018. <https://>

- faunalytics.org/the-economics-of-ecotourism-private-profits-and-social-benefits/.
- Petrov, Arkady. "Brazilian Bill Equates Forest Arson with Murder in Sentencing Severity." *The Rio Times*. September 26, 2024. <https://www.riotimesonline.com/brazilian-bill-equates-forest-arson-with-murder-in-sentencing-severity/>.
- Ruas, Carla. "Climate Change Made 2023 Amazon Drought 30 Times More Likely, Scientists Say." *Mongabay*. January 26, 2024. news.mongabay.com/2024/01/climate-change-made-2023-amazon-drought-30-times-more-likely-scientists-say/.
- Ramírez, Verónica. "The Amazon's Colossal Prehistoric Fish." *BBC*. October 19, 2023. <https://www.bbc.com/travel/article/20231018-the-amazons-colossal-prehistoric-sh>.
- Rodriguez, Robson. "Wet Season Won't Reverse Water Deficit in Amazon Basin, Experts Warn." *Valor International*. October 11, 2024. <https://valorinternational.globo.com/environment/news/2024/10/11/wet-season-wont-reverse-water-deficit-in-amazon-basin-experts-warn.ghtml>.
- Sá Pessoa, Gabriela, Ammer Madhani, and Colleen Long. "Joe Biden Becomes First Sitting US President to Visit Amazon Rainforest." *Associated Press*, November 17, 2024. <https://apnews.com/article/biden-amazon-peru-g20-3cc827382d1e3c32865a14616ddfe467>.
- Samora, Roberto. "Brazil Grain Barge Shipping Returns as Amazonian Drought Subsidies." *Reuters*. November 27, 2024. www.reuters.com/markets/commodities/brazil-grain-berge-shipment-returns-amazonian-drought-subsidies-2024-11-27/.
- Schultz, Anthony, and Adam Reedy. "Tribes in Brazil Fight Wildfires with Indigenous Knowledge." *Environmental Systems Research Institute*. 2024. <https://www.esri.com/about/newsroom/arcuser/tribes-in-brazil-fight-wildfires-with-indigenous-knowledge/>.
- Seric, Adnan, and Yee Siong Tong. "What Are Global Value Chains and Why Do They Matter?" *Industrial Analytics Platform*, August 3, 2019. <https://iap.unido.org/articles/what-are-global-value-chains-and-why-do-they-matter>.
- CBS News. "Severe Droughts Threaten Sustainable Catch of the Amazon's Giant Fish, the Giant Pirarucu." November 9, 2024. <https://www.cbsnews.com/news/amazon-severe-drought-giant-pirarucu/>.
- Sinimbu, Fabíola. "Environment Minister Advocates Stiffer Penalties for Arson." *AgênciaBrasil*. September 17, 2024. <https://agenciabrasil.ebc.com.br/en/geral/noticia/2024-09/environment-minister-advocates-stiffer-penalties-arson>.
- United States Geological Survey. "Artificial Groundwater Recharge." Accessed December 21, 2024. <https://www.usgs.gov/mission-areas/water-resources/science/artificial-groundwater-recharge>.
- Vilela, Rafael. "Governors Demand Strict Punishment for Arson." *AgênciaBrasil*. September 20, 2024. <https://agenciabrasil.ebc.com.br/en/politica/noticia/2024-09/governors-demand-strict-punishment-arson>.
- Wenzel, Fernanda. "Drought Forces Amazon Indigenous Communities to Drink Mercury-Tainted Water." *Mongabay*. September 5, 2024. <https://news.mongabay.com/2024/09/drought-forces-amazon-indigenous-communities-to-drink-mercury-tainted-water/>.
- Wenzel, Fernanda. "Extreme Drought Pushes Amazon's Main Rivers to Lowest-Ever Levels." *Mongabay*. September 11, 2024. news.mongabay.com/2024/09/extreme-drought-pushes-amazons-main-rivers-to-lowest-ever-levels.
- World Wildlife Fund. "The Amazon in Crisis: Forest Loss Threatens the Region and the Planet." Accessed January 8, 2025. <https://www.worldwildlife.org/stories/the-amazon-in-crisis-forest-loss-threatens-the-region-and-the-planet>.

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