Forum:	Environmental Commission (ENV)
Question of:	Measures to prevent and mitigate the effects of deforestation
Student Officer:	Junseo Lee, Deputy Assistant President

Introduction

As the human population grows and the Earth's environment only continues to deteriorate, deforestation remains an urgent environmental issue. Not only does deforestation have widespread impacts that affect humanity on a global scale, but it is also the shared burden of the international community to prevent and mitigate its effects. As the UN body dedicated to such environmental issues, the ENV committee must foster bonds of unity and international cooperation to tackle the deforestation crisis, coming up with unique and effective solutions to this issue.

Deforestation is defined as the "intentional clearing of forested land,"¹ meaning that it is entirely human-driven. Thus, nearly all instances of deforestation, from the cutting down of a few trees to the destruction of entire forests, are a result of economic motives.

Commercial logging and land clearing are often the largest contributors to deforestation in tropical rainforests, along with harmful agricultural practices such as slash-and-burn agriculture, in which farmers burn down forests and use the remaining soil for growing crops. However, this method of agriculture often leads to soil exhaustion, causing the soil to become infertile and driving farmers to continue clearing more forest land to grow their crops, resulting in a positive feedback loop of continuous deforestation.²

Land clearing is also used to provide large swaths of land for cattle ranches and more economically valuable plants such as rubber trees or oil palms. Due to climate change and diseases, the supply of rubber began to drop in 2011 and demand for the product has only increased, causing massive deforestation in Southeast Asia. In fact, a quarter of deforestation in Cambodia was caused by rubber plantations and the highly-profitable rubber industry.³ The global production of palm oil has also been on

https://www.britannica.com/science/deforestation.

¹"Deforestation." National Geographic Society. National Geographic.

https://education.nationalgeographic.org/resource/deforestation.

²"Deforestation." Encyclopædia Britannica. Encyclopædia Britannica, inc.

³Swain, Frank. "The Wonder Material We All Need but Is Running Out." BBC Future. BBC, March 19, 2021. https://www.bbc.com/future/article/20210308-rubber-the-wonder-material-we-are-running-out-of.

the rise, with annual production rates skyrocketing from 15.2 million tons to 62.6 million tons in the twenty years between 1995 to 2015. In Indonesia, forest fires started to clear the path for the palm oil industry to become the greatest contributor to greenhouse gas emissions.⁴

Another major contributor to deforestation that explains the exceptionally rapid growth of the logging industry in the modern age is the construction and extension of roads into previously inaccessible forest areas.⁵ As more areas open to be settled in countries dominated by forest land, the areas' inhabitants take advantage of the abundance of wood and fuel, further developing the logging industry.⁶

Another large cause of deforestation that has become a major problem in the status quo is illegal logging, which is especially prevalent in the Amazon rainforest. For instance, an investigation into logging companies in Brazil, where approximately 60 percent of the forest is located, found that 80 percent of logging was illegal, with 12 out of 13 investigated companies having broken the law. Such illegal practices include forging permits for logging, cutting down legally-protected trees, or cutting more forest area than unauthorized, which are all especially problematic as they lead to greatly increased deforestation rates as all government regulations on the industry are ignored.⁷

Another large problem that must be tackled in the fight against deforestation is the strong economic driving force deeply rooted in many developing nations' economies. Besides the previously mentioned value of rubber trees and oil palms, the deforestation of several major forests, including the Amazon rainforest, is motivated by government subsidization of the logging industry. For example, in Brazil, there are several tax policies and public land procedures that incentivize the clearing of forest land. A near complete exemption of agricultural income from income tax, subsidies towards livestock ranches, and the heightened security of land claims for cleared areas all motivate companies to contribute towards deforestation.⁸

⁴Tullis, Paul. "How the World Got Hooked on Palm Oil." The Guardian. Guardian News and Media, February 19, 2019. https://www.theguardian.com/news/2019/feb/19/palm-oil-ingredient-biscuits-shampoo-environmental. ⁵"Deforestation." National Geographic Society. National Geographic.

https://education.nationalgeographic.org/resource/deforestation.

⁶"Logging in the Amazon." WWF. World Wildlife Foundation.

https://wwf.panda.org/discover/knowledge_hub/where_we_work/amazon/amazon_threats/other_threats/logging_am azon/.

⁷"Logging in the Amazon." WWF. World Wildlife Foundation.

https://wwf.panda.org/discover/knowledge_hub/where_we_work/amazon/amazon_threats/other_threats/logging_am azon/.

⁸ Binswanger, Hans P. "Brazilian Policies That Encourage Deforestation in the Amazon." World Development 19, no. 7 (1991): 821–29.

Therefore, the global community must act to find a solution to this issue without threatening the economies of developing nations and the livelihoods of citizens that depend on the logging industry. With nations such as Honduras, in which the agriculture, forestry and fishing industries contributed 12.1 percent of the nation's GDP in 2020,⁹ it would be unreasonable to completely prohibit logging without a viable counterproposal to supplant the industry.

Besides the economic benefits of the lumber and agricultural industries to various developing nations, a large majority of the effects of deforestation negatively impact the global community, with catastrophic consequences in the long term. Because rainforests are some of the most efficient and effective contributors to CO_2 sequestering and converting it to oxygen, the burning of these trees leads to mass amounts of CO_2 being released into the atmosphere.¹⁰ This contributes to the greenhouse effect and global warming, both of which have become urgent crises that could negatively impact the Earth's future. Logging activity also leaves forests more vulnerable to wildfires and droughts, as they are transformed into more open, drier areas due to the lack of forest cover, only further contributing to rising CO_2 levels and global warming.

These effects are demonstrated most clearly in the Amazon rainforest region, which studies claim will experience a doubling of CO_2 levels due to deforestation, which will in turn increase the Amazon basin's average temperature by approximately 3.5 degrees Celsius.¹¹

Besides these concerns, deforestation is also attributed to a great loss of biodiversity and could lead to the extinction of several endangered species. Orangutans, chimpanzees, and giant pandas are all examples of animals that are being driven to extinction due to the destruction of their habitats through deforestation.¹²

Throughout most of human history, deforestation has occurred at a consistent rate, with half of all global forest loss occurring between 8000 BC and 1900. However, a combination of rapid population growth and technological developments greatly expedited the speed of deforestation in the past century,

⁹"Agriculture, Forestry, and Fishing, Value Added (% of GDP)."

https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS.

¹⁰"Deforestation." Encyclopædia Britannica. Encyclopædia Britannica, inc.

https://www.britannica.com/science/deforestation.

¹¹Costa, Marcos Heil, and Jonathan A. Foley. "Combined Effects of Deforestation and Doubled Atmospheric CO2 Concentrations on the Climate of Amazonia", Journal of Climate 13, 1 (2000): 18-34, https://doi.org/10.1175/1520-¹²McCoy, Marina. "9 Species Going Extinct Due to Habitat Destruction & amp; Deforestation." Vermont Woods Studios, September 27, 2021.

https://vermontwoodsstudios.com/blog/species-going-extinct-habitat-destruction-deforestation/.

leading to 9,000 years worth of deforestation occuring in just 100 years. Overall, the Earth has lost 2 billion hectares of forest area, which accounts for a third of all forest land.¹³

However, the past three decades have seen improvements, with global deforestation rates declining since the 1980s, when 150 million hectares of forest were lost, largely due to substantial swaths of the Brazilian Amazon rainforest being cleared for pasture and croplands. In the last decade, 47 million hectares were lost, which is comparatively much less than in the past. The United Nations Food and Agriculture Organization (FAO) approximates that 1.3 million square kilometers of deforestation occur per decade.¹⁴

A large majority of the forestland that has been lost is currently used as crop fields or pastures for animals, with cleared fields often being abandoned after experiencing soil exhaustion and becoming no longer viable for agricultural use. Despite this, several advocacy groups, international organizations, and governments have attempted to preserve the environment and prevent the deforestation crisis from worsening.

One of the largest international organizations actively working to reduce deforestation and mitigate its effects is the United Nations (UN) itself. The previously mentioned UN FAO collects information regarding global deforestation levels through their Forest Resources Assessment, which continues to spread awareness on the high levels of deforestation and in which countries this deforestation occurs. ¹⁵

One of the first major contributions the UN made towards limiting deforestation was the New York Declaration on Forests (NYDF), proposed in 2014 as part of the UN Climate Summit. Through this voluntary agreement, over 200 governments and organizations pledged to halve deforestation levels by 2020 and end it by 2030.¹⁶

¹³Ritchie, Hannah, and Max Roser. "Deforestation and Forest Loss." Our World in Data, February 9, 2021. https://ourworldindata.org/deforestation#:~:text=Global%20deforestation%20reached%20its%20peak,of%20India%20%E2%80%93%20during%20that%20decade.

¹⁴Ritchie, Hannah, and Max Roser. "Deforestation and Forest Loss." Our World in Data, February 9, 2021. https://ourworldindata.org/deforestation#:~:text=Global%20deforestation%20reached%20its%20peak,of%20India% 20%E2%80%93%20during%20that%20decade.

¹⁵"The State of the World's Forests 2020." www.fao.org. Food and Agriculture Organization of the United Nations, 2020. https://www.fao.org/state-of-forests/en/.

¹⁶ New York Declaration on Forests - Halving the Loss of Natural Forest by 2020, Striving to End It by 2030." Unfccc.int. United Nations Framework Convention on Climate Change, October 19, 2015. https://unfccc.int/news/new-york-declaration-on-forests.

Furthermore, the UN Framework Convention on Climate Change (UNFCCC) holds annual Conference of the Parties (COP) meetings in which international legislation on various issues related to climate change, including deforestation, is discussed and implemented.¹⁷

In COP25, held in 2019, participating nations emphasized a strengthened commitment to preventing deforestation through the sustainable management of forestry industries. This could in turn aid in achieving the goals of the Paris Agreement in fighting climate change, as 23 percent of all greenhouse gas emissions were from the Agriculture, Forestry, and Other Land Use sector, and forests could absorb nearly 30 percent of all greenhouse gases by 2030.¹⁸

Meanwhile, domestic attempts to reduce deforestation have also had a major impact. For instance, the European Union proposed several deforestation laws in 2020 that regulated companies that produced products through deforestation and rewarded companies that utilized sustainable business and agricultural practices.¹⁹ Other examples include the government of New Zealand, which pledged to plant 100 million trees within the country, and citizens of India, who planted 66 million trees in a single day in 2017.²⁰

We hope that through the ENV committee's efforts to propose innovative and effective solutions to deforestation through fruitful debate and discourse, these organizations and governments will be further aided in their efforts to mitigate this environmental crisis.

Definition of Key Terms

Deforestation

Deforestation is defined as the clearing of forested areas through logging or fires. It is often used to harvest the wood itself for manufacturing or fuel, or clear an area for other purposes such as agriculture or animal pastures. Deforestation remains an urgent environmental issue, and finding a solution to

¹⁷"Conference of the Parties (COP)." Unfccc.int. United Nations Framework Convention on Climate Change. https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop.

¹⁸"At COP25, UN Agencies Commit to Turn the Tide on Deforestation | UN Desa Department of Economic and Social Affairs." United Nations. United Nations Department of Economic and Social Affairs, December 12, 2019. https://www.un.org/development/desa/en/news/sustainable/cop25-deforestation.html.

¹⁹"Questions and Answers on New Rules for Deforestation-Free Products." European Commission, November 17, 2021. https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_5919.

²⁰"Deforestation." Encyclopædia Britannica. Encyclopædia Britannica, inc. https://www.britannica.com/science/deforestation.

deforestation and mitigating its harmful effects on the environment is a crucial issue²¹ that must be addressed from multiple perspectives in order to come to an effective solution.

Reforestation

Reforestation is the artificial or natural replanting of trees, which directly counteracts the effects of deforestation. Reforestation attempts are often methods used by various governments and environmental advocacy groups to mitigate the harmful impacts of deforestation.²² Examples include the government of New Zealand, which has planned to plant 1 billion trees by 2028,²³ as well as the natural growth cycle of trees and plants which allows them to expand their population.²⁴ Being one of the most effective ways of mitigating the effects of deforestation, reforestation is a very viable solution to focus on in this agenda.

Logging Industry

The logging industry is based around cutting trees and transporting lumber. Logging has consistently been a common industry throughout history, but modern technology has made it much more profitable by providing more efficient and effective methods of cutting trees.²⁵ The largest exporters of log-based products include India, China, Brazil, the US, and several African nations.²⁶ This industry is particularly relevant to the discussion of deforestation, as both legal and illegal logging operations are some of the greatest contributors to deforestation²⁷ and leads to further harm done to the environment.

Amazon Rainforest

The Amazon Rainforest is one of the largest tropical rainforests remaining in the world, containing very high biodiversity as well as large amounts of captured carbon, and occupying approximately 40 percent of the Federative Republic of Brazil's area.²⁸ Due to its abundance of trees, Brazil's rapidly expanding population, and economic incentives from the Brazilian government, the

²¹ "Deforestation." Encyclopædia Britannica. Encyclopædia Britannica, inc. https://www.britannica.com/science/deforestation.

²² Webster, Noah. "Reforestation." In Webster's New International Dictionary of the English Language. Springfield, Mass: G. & amp; C. Merriam Co, 1959.

²³ "THE COUNTRY ON A TREE-PLANTING MISSION." New Zealand Story. New Zealand.

https://www.nzstory.govt.nz/stories/the-country-on-a-tree-planting-mission/#:~:text=The%20New%20Zealand%20 Government%20has,tree%20planting%20across%20New%20Zealand.

²⁴ Clark, J.S., Lewis, M., McLachlan, J.S. and HilleRisLambers, J. (2003), ESTIMATING POPULATION SPREAD: WHAT CAN WE FORECAST AND HOW WELL?. Ecology, 84: 1979-1988. https://doi.org/10.1890/01-0618.

²⁵ "Logging." Encyclopædia Britannica. Encyclopædia Britannica, inc.

https://www.britannica.com/topic/logging-forestry.

²⁶ "Forest Product Consumption and Production." FAO. Food and Agriculture Organization of the United Nations. https://www.fao.org/forestry/statistics/80938@180723/en/.

²⁷ Ronca, Debra. "How Deforestation Works." HowStuffWorks Science. HowStuffWorks, April 19, 2021.

²⁸ "Amazon Rainforest." Encyclopædia Britannica. Encyclopædia Britannica, inc.

Amazon Rainforest has suffered high levels of deforestation since the 1960s. Because of this, arguments both for and against deforestation are often related to the Amazon Rainforest as well as both the economic benefits and the environmental harms its deforestation has brought.²⁹

Soil Erosion

Soil erosion is a geological phenomenon in which loose topsoil is carried away and eroded by natural occurrences such as wind and water. Deforestation greatly contributes to the vulnerability of forest land to soil erosion, as the lack of plant cover leads to more topsoil being swept into rivers. Soil erosion also leads to further deforestation because the soil loses its fertility and farmers and companies often move on to new forest land once the soil has been completely exhausted.³⁰

Greenhouse Gases

Greenhouse gases are gases that trap heat within the Earth's atmosphere and contribute to climate change and global warming, a process known as the greenhouse effect.³¹ The most common greenhouse gases are carbon dioxide, methane, and nitrous oxide, all of which are absorbed by forests and trees. The release of greenhouse gases due to deforestation is often an argument used by environmentalists to fight against deforestation and climate change, while conservatives often support expanding fossil fuel use for the sake of the economy,³² making it essential to understand these gases when discussing deforestation and its impacts on both the environment and the economy.³³

Wildfires

A wildfire is an uncontrolled fire that spreads through forested areas and wildlands, burning trees and forests down in the process.³⁴ Deforestation and wildfires are often connected through a continuous feedback loop: deforestation leaves forests much drier and less covered, leading to an increased vulnerability to wildfires, while these wildfires lead to even more deforestation as trees are burned down. ³⁵ Because of this, wildfires are an important part of discussing the causes and effects of deforestation.

Overgrazing

²⁹ Roy, Diana. "Deforestation of Brazil's Amazon Has Reached a Record High. What's Being Done?" Council on Foreign Relations. Council on Foreign Relations, March 17, 2022.

³⁰ "What Is Erosion? Effects of Soil Erosion and Land Degradation." WWF. World Wildlife Fund.

³¹ "Overview of Greenhouse Gases." EPA. United States Environmental Protection Agency.

³² Funk, Cary, and Meg Hefferon. "U.S. Public Views on Climate and Energy." Pew Research Center Science & Society. Pew Research Center, July 12, 2021.

https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/.

³³ "Greenhouse Gases and Carbon Dynamics of Forestry." Forest Research, February 9, 2022.

³⁴ "Wildfires." National Geographic Society. National Geographic Society.

³⁵ Thompson, Elizabeth. "Amazon Deforestation and Fires Are a Hazard to Public Health." EOS Magazine, March 21, 2022.

Overgrazing, defined as the depletion of plant life and grass cover as a result of excessive livestock grazing,³⁶ is another phenomenon that both contributes to and is an effect of deforestation. One of the main driving factors of deforestation is clearing land for animal pastures, which can often lead to overgrazing as a result of improper animal management. Furthermore, overgrazing prevents forests from being regrown on the cleared land as nearly all vegetation in the soil is stripped away, making both natural and artificial reforestation efforts difficult.³⁷

Biodiversity

Biodiversity is the measure of the level of variety of different species on Earth or in a certain area, and a trait that allows species to become more resilient to changes in their environment and increases their survivability.³⁸ Both the biodiversity of animals and tree species are greatly threatened by deforestation, especially in the Amazon Rainforest which houses over 3 million different species of animals and 2,500 different tree species, all of which are becoming endangered due to consistent deforestation attempts.³⁹ Deforestation cuts down trees and destroys habitats of several endangered species, further leading to a degradation of our planet's biodiversity, making this term essential in understanding the urgency of this issue.⁴⁰

Slash-and-burn Agriculture

Slash-and-burn agriculture is a particularly harmful method of deforestation in which forests, usually in tropical rainforests in South and Central America, are burned down to clear land for more economically profitable agriculture and animal grazing. This method often greatly reduces the biodiversity of certain ecosystems, causes habitat fragmentation, and also releases large amounts of carbon dioxide into the atmosphere.⁴¹

Timeline of Key Events

1960 - Large-scale Deforestation of Amazon Rainforest in Brazil Begins

Throughout the 1960s, the Brazilian government created several legislative economic incentives to clear land while simultaneously adopting new technologies such as chainsaws and bulldozers that greatly increased the profitability of the logging industry. Clearing land for agriculture became imperative

³⁶ "OVERGRAZING." OECD Glossary of Statistical Terms. OECD, November 16, 2001.

³⁷ "Causes, Effects and Solutions to Overgrazing." Conserve Energy Future, July 11, 2020.

³⁸ "Biodiversity." Encyclopædia Britannica. Encyclopædia Britannica, inc.

³⁹ Thomson, Ashley. "Biodiversity and the Amazon Rainforest." Greenpeace USA, May 22, 2020.

⁴⁰ "Deforestation and Forest Degradation." WWF. World Wildlife Fund.

⁴¹ "Slash-and-Burn Agriculture." Encyclopædia Britannica. Encyclopædia Britannica, inc.

as agricultural income was taxed very little, and animal ranches were given land claim benefits by the government, motivating several companies to contribute to deforestation in the Amazon Rainforest.⁴² Because the Amazon Rainforest is the largest forest in existence and contains over 3 million different species of animals,⁴³ this event is very important in the history of deforestation and marks a major turning point in its expansion.

September 27, 1972 - Opening of Trans-Amazon Highway

The deforestation of the Amazon Rainforest only continued to increase with the opening of the Trans-Amazon Highway in 1972. It was built as a part of the Brazilian government's attempts to resettle thousands of citizens within the Amazon Rainforest, providing them incentives such as loans and land grants to clear forest land and establish farms. Though the plan was a failure and drove several farmers deep into debt, deforestation still rapidly accelerated, leading to further habitat loss and environmental damages. The Amazon has yet to recover from these high levels of deforestation, making it an essential part of the history of deforestation.⁴⁴

September 24, 2014 - Endorsement of New York Declaration on Forests

The New York Declaration on Forests was proposed at the 2014 UN Climate Summit, bringing together multiple governments and organizations for the goal of halving deforestation levels by 2020 and eradicating the harmful practice by 2030.⁴⁵ Though voluntary, the declaration's ambitious plans for both mitigating deforestation and encouraging reforestation attempts makes its proposition a noteworthy event in the history of deforestation.

January 2017 - Creation of First UN Strategic Plan for Forests

In January of 2017, the UN Forum proposed the United Nations Strategic Plan for Forests, which set several goals to combat deforestation and encourage reforestation efforts by 2030. The plan was eventually adopted by both the UN Economic and Social Council and the General Assembly in April of 2017. It included the ambitious goal of inducing a 3% increase in forest area as well as setting six Global Forest Goals and several others to be reached by 2030.⁴⁶ The plan marks the first instance of the UN

⁴² "Deforestation in the Amazon." Council on Foreign Relations. Council on Foreign Relations.

⁴³ Thomson, Ashley. "Biodiversity and the Amazon Rainforest." Greenpeace USA, May 22, 2020.

⁴⁴ "The Trans-Amazonian Highway." Mongabay. Mongabay.

⁴⁵ "New York Declaration on Forests - Halving the Loss of Natural Forest by 2020, Striving to End It by 2030." Unfccc.int. United Nations Framework Convention on Climate Change, October 19, 2015.

⁴⁶ "United Nations Strategic Plan for Forests 2017–2030." United Nations. United Nations Department of Economic and Social Affairs. https://www.un.org/esa/forests/documents/un-strategic-plan-for-forests-2030/index.html.

creating an official Strategic Plan for Forests, and is likely to encourage reforestation attempts and influence future UN actions on deforestation and other environmental issues.

2018 - Released Global Forest Watch Data Shows Over 3.6 Million Hectares of Tropical Forest Lost

2018 saw the fourth-highest annual deforestation levels since the start of the 21st century, losing 12 million hectares of tree cover and 3.6 million hectares of tropical rainforest. This demonstrates how the issue of deforestation remains urgent in modern times, as such rainforests contain trees that are hundreds of years old and store more carbon than regular trees.⁴⁷ Deforestation data released in 2018 shows how much environmental damage deforestation still contributes to this day.

January 1, 2019 - Inauguration of President Jair Bolsonaro

At the start of 2019, Jair Bolsonaro was elected as the President of Brazil. Though he has been continuously called on to protect the Amazon rainforest and pass stricter legislation to mitigate deforestation and the destruction of indigenous land, the Bolsonaro administration has been continuously characterized by deregulation of environmental laws and has instead supported deforestation in the Amazon, cutting 24 percent of the 2021 environment budget and replacing environmental policymakers with military officials.⁴⁸ Though Bolsonaro has ambitiously pledged to illegal deforestation by 2028, many doubt the legitimacy of his claims.⁴⁹ Because of this, the election of the Bolsonaro administration is an important point in the history of deforestation.

2020 - Annual Global Deforestation Rates Increase

From 2019 to 2020, there was a 12 percent increase in the amount of deforestation that occurred, despite the reduced demand for products related to deforestation due to the COVID-19 pandemic. Brazil, Cameroon, and Columbia were the largest contributors to this increase.⁵⁰ The data from 2020 was a significant reminder of deforestation's urgency as an environmental issue, as it marked one of the first years in which deforestation rates were directly increased by global warming.

2021 - COP26 Climate Summit in Glasgow Pledged to End Deforestation, Mitigate Impacts by 2030

The United Nations Climate Change Conference, or COP 26, was held in Glasgow in 2021. Thousands of participants from over a hundred different nations attended the conference to debate and discuss effective measures to mitigate climate change, of which deforestation was a primary issue. For

⁴⁷ Weisse, Mikaela, and Elizabeth Dow Goldman. "The World Lost a Belgium-Sized Area of Primary Rainforests Last Year." World Resources Institute. World Resources Institute, April 25, 2019.

⁴⁸ Roy, Diana. "Deforestation of Brazil's Amazon Has Reached a Record High. What's Being Done?" cfr.org. Council on Foreign Relations, March 17, 2022.

⁴⁹ "COP26: Don't Be Fooled By Bolsonaro's Pledges." hrw.org. Human Rights Watch, November 2, 2021.

⁵⁰ Fountain, Henry. "Tropical Forest Destruction Accelerated in 2020." March 31, 2021.

instance, 137 countries committed to reforestation efforts and completely eliminating the effects of deforestation by 2030, backed by 19.2 billion dollars in funding. This was a landmark declaration in efforts to counteract the impacts of deforestation, and will likely greatly influence future legislation and environmentalist movements.⁵¹

Position of Key Member Nations and Other Bodies

United States of America

The US currently has made several national and international commitments to save forests and prevent deforestation, many of which were passed under President Biden during the COP26 Climate Conference. These include the Glasgow Leaders' Declaration on Forests and Land Use and the Global Forest Finance Pledge. Furthermore, in 2021, the US also proposed a Plan to Conserve Global Forests, which would aim to restore at least 200 million hectares of forest land by 2030.⁵² The current Biden administration seems to favor government action both domestically and internationally in resolving the deforestation crisis and wishes to make significant progress before 2030.⁵³

United Kingdom

The UK has consistently maintained a stance of strongly favoring strict international action against deforestation, which was once again demonstrated by their leadership during the COP26 Climate Change Conference. The creation of the Glasgow Leaders' Declaration on Forests and Land Use, which promised to reverse global forest loss by 2030 and promoted sustainable development, was largely led by the UK, revealing their stance on urgently tackling deforestation through international agreements and diplomacy.⁵⁴ Zac Goldsmith, the UK's environment minister, has also stated that the government must grealy increase their funds for maintaining and protecting nature and the environment.⁵⁵ The nation also

https://www.americanprogress.org/article/how-the-united-states-can-fulfill-its-critical-forest-pledges/#:~:text=The% 20United%20States%20also%20announced,with%20global%20stakeholders%20and%20communities.

https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/22/fact-sheet-president-biden-signs-executive-order-to-strengthen-americas-forests-boost-wildfire-resilience-and-combat-global-deforestation/.

⁵¹ "COP26: Together for Our Planet." un.org. United Nations.

⁵² Christianson, Anne. "How the United States Can Fulfill Its Critical Forest Pledges." Center for American Progress. Center for American Progress, September 5, 2018.

⁵³ "Fact Sheet: President Biden Signs Executive Order to Strengthen America's Forests, Boost Wildfire Resilience, and Combat Global Deforestation." The White House. The United States Government, April 22, 2022.

⁵⁴ Christianson, Anne. "How the United States Can Fulfill Its Critical Forest Pledges." Center for American Progress. Center for American Progress, September 5, 2018.

https://www.americanprogress.org/article/how-the-united-states-can-fulfill-its-critical-forest-pledges/#:~:text=The% 20 United%20 States%20 also%20 announced, with%20 global%20 stakeholders%20 and%20 communities.

⁵⁵ Greenfield, Patrick, and Fiona Harvey. "UK to Push Plan to 'Halt and Reverse Global Deforestation by 2030' at COP26." The Guardian. Guardian News and Media, October 15, 2021.

emphasizes attempts to halt illegal deforestation through their 2021 Environment Act, which increased regulation on UK supply chains.⁵⁶ Overall, the UK has had a very active role in attempting to curb deforestation rates both inside and outside of their borders.

People's Republic of China

Though China has often remained reticent to sign agreements regarding ending deforestation due to their status as a major importer of palm oil, paper pulp, and wood products, at COP26, China agreed to participate in the goal to end deforestation by 2030. Many experts, including Zhu Chunquan, the head of nature initiatives for China in the World Economic Forum, have stated that this marks a major turning point in China's stance on global environmental measures, revealing their support for new international agreements to end deforestation.⁵⁷

Federative Republic of Brazil

Under Jair Bolsonaro, Brazil has only increased its deforestation rate of the Amazon Rainforest, largely due to economic incentives through legislation passed by the Brazilian government, with the most recent statistic being 166 square miles being cut down in January of 2022 alone.⁵⁸ The Brazilian government has previously weakened environmental protections as well, through cuts to environment funding and refusing to investigate 98 percent of deforestation alerts.⁵⁹ Despite this inaction and the continued rapid deforestation of the Amazon, the Bolsonaro administration has pledged, at the COP26 Climate Conference, to aid the international community in ending deforestation.⁶⁰

Kingdom of Cambodia

https://www.theguardian.com/environment/2021/oct/15/uk-to-push-plan-to-halt-and-reverse-global-deforestation-by -2030-at-cop26-aoe.

⁵⁶ "Environment Act 2021." legislation.gov.uk. The United Kingdom Government. Accessed July 11, 2022. https://www.legislation.gov.uk/ukpga/2021/30/enacted.

⁵⁷ Lingyu, Kong. "From Ending Deforestation in China, to Ending It Everywhere." China Dialogue, December 21, 2021.

https://chinadialogue.net/en/nature/from-ending-deforestation-in-china-to-ending-it-everywhere/#:~:text=There%2C %20China%20agreed%20to%20bolster,global%20effort%20to%20reduce%20deforestation.

⁵⁸ Roy, Diana. "Deforestation of Brazil's Amazon Has Reached a Record High. What's Being Done?" Council on Foreign Relations. Council on Foreign Relations. Accessed July 11, 2022.

https://www.cfr.org/in-brief/deforestation-brazils-amazon-has-reached-record-high-whats-being-done. ⁵⁹ Brown, Sarah. "Government Inaction Sees 98% of Deforestation Alerts Go Unpunished in Brazil." Mongabay Environmental News, May 31, 2022.

https://news.mongabay.com/2022/05/governmet-inaction-sees-98-of-deforestation-alerts-go-unpunished-in-brazil/. ⁶⁰ Gomes, Marcus, and George Ferns. "Brazil Signs Agreement to Halt Deforestation – but Bolsonaro Cannot Be Trusted." The Conversation, June 29, 2022.

https://theconversation.com/brazil-signs-agreement-to-halt-deforestation-but-bolsonaro-cannot-be-trusted-171091.

Though Cambodia's official stance on deforestation does admit that the destruction of forests has become a problem, the methods that the Cambodian government endorsed to reduce deforestation rates differ greatly from the strategies of more developed nations. For instance, Cambodia's prime minister Hun Sen claims that impoverished citizens were the major contributors to deforestation due to their wooden houses and products. While Cambodian citizens strongly disagree with this sentiment, the official policy of Cambodia maintains that rather than tackling corruption in the logging industry and government, it is preferable to destroy the wooden houses of impoverished communities to reclaim wood harvested from deforestation.⁶¹

Republic of Honduras

A large area of the Moskitia region, the second largest rainforest in Central America, is located in Honduras, and much of their official policy on deforestation revolves around the area's protection and conservation. In the past 4 years, the Honduras government has committed to strengthening regulations on illegal ranching and deforestation in Moskitia.⁶² This policy is motivated most strongly by the significant threat that climate change and the effects of forest degradation pose to Honduras,⁶³ and demonstrates their national policy of domestically ensuring that important rainforests and the various wildlife that inhabit them are properly protected.⁶⁴

Republic of Indonesia

The Indonesian government has often supported sacrificing forests and promoting land development for the sake of financial gain, and passed a law in 2020 which led to further deregulation and weakened federal control over natural resources. Though criticism regarding the environmental consequences of such legislation and the continuously growing threat of climate change has incentivized the government to attempt to change the law, it has still remained active in the status quo.⁶⁵ However, new laws preventing the further clearing of primary forests and issuing licenses for oil palm plantations have

⁶¹ "Cambodia's Hun Sen Blames Deforestation on the Country's Poor." Radio Free Asia, November 11, 2021. https://www.rfa.org/english/news/cambodia/blames-11112021080133.html#:~:text=But%20activists%20and%20citi zens%20fire,ruling%20elites%20are%20at%20fault.&text=Illegally%20harvested%20timber%20is%20shown, in%20a%20March%202021%20photo.

 ⁶² "Honduras Aims to Save Vital Wildlife Corridor from Deforestation." Mongabay Environmental News, November 13, 2018. https://news.mongabay.com/2018/11/honduras-aims-to-save-vital-wildlife-corridor-from-deforestation/.
 ⁶³ "New Project to Safeguard the Forests of Honduras under the Leadership of Women and Rural and Indigenous Youth." FAO. Food and Agriculture Organization of the United Nations, September 14, 2018. https://www.fao.org/redd/news/detail/en/c/1152889/.

 ⁶⁴ "Honduras Aims to Save Vital Wildlife Corridor from Deforestation." Mongabay Environmental News, November 13, 2018. https://news.mongabay.com/2018/11/honduras-aims-to-save-vital-wildlife-corridor-from-deforestation/.
 ⁶⁵ Shahreen, Samiha. "Deforestation in Indonesia: Earth.org - Past: Present: Future." Earth.org, April 29, 2022. https://earth.org/vanishing-act-deforestation-in-indonesia/#:~:text=Indonesia%20pledged%20a%2029%2D41,sector s%20produced%2097.2%25%20of%20emissions.

led to a significant decrease in deforestation in 2020, signaling a possible change in Indonesia's historic stance on deforestation.

Suggested Solutions

There are several different methods that can be used to both prevent and mitigate the effects of deforestation, each with varying levels of effectiveness and efficiency. There are also several important matters to consider when developing such solutions. For instance, solutions to deforestation should not only include a means of preventing further unsustainable levels of deforestation or eradicating the practice entirely, but also aiding reforestation attempts through natural or artificial means, as such efforts are imperative to reducing the long-term environmental impacts of deforestation. Furthermore, delegates should also consider that deforestation is a large source of income for several developing nations, especially in South America and Southeast Asia, and that in such nations the logging industry cannot be completely removed without a viable economic alternative.

Keeping these caveats in mind, the first recommended solution to tackle the issue of deforestation would be to add on to previously made international environmental agreements, particularly focusing on the 2021 Declaration on Forests and Land Use made during the COP26 Climate Conference, as it is the most recent development in international agreements pertaining to reforestation and conservation efforts.⁶⁶ By strengthening such agreements to ensure that more member nations continue to follow through with their promises and setting more ambitious goals in the future past 2030, continuous improvements to the deforestation crisis will likely be made. A particular emphasis should be placed on nations that have only recently agreed to join the international community in the fight against deforestation, such as China and Brazil,⁶⁷ as they tend to have a larger impact on deforestation rates. Because of this, it is also suggested to include some measure of accountability for such nations to ensure that they are also significantly contributing to the agreement.

Other more developed nations that are less reliant on deforestation as an industry such as the US or the UK should be incentivized to make larger contributions to ending deforestation within their own borders. Meanwhile, developing nations such as Cambodia, Honduras, Nigeria, and Indonesia that are

⁶⁶ "Glasgow Leaders' Declaration on Forests and Land Use." UN Climate Change Conference UK 2021. United Nations, November 12, 2021. https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/.

⁶⁷ Lingyu, Kong. "From Ending Deforestation in China, to Ending It Everywhere." China Dialogue, December 21, 2021.

https://chinadialogue.net/en/nature/from-ending-deforestation-in-china-to-ending-it-everywhere/#:~:text=There%2C%20China%20agreed%20to%20bolster,global%20effort%20to%20reduce%20deforestation.

more reliant on logging and agriculture should instead be encouraged to subsidize other industries as an alternative to both stabilize their economies and make the logging industry obsolete. Besides logging, other industries that must be heavily reduced include the food and agricultural sector, the palm oil industry,⁶⁸ and the rubber industry,⁶⁹ as all three greatly rely on deforested land to continue being profitable.

Domestically, governments must focus on enforcing stricter regulations on deforestation. This would include harsher penalties for illegal logging operations, strict limitations on the maximum amount of wood that can be harvested, and setting protected forest areas and species that cannot be harmed. All governments must be held internationally accountable for their efforts in limiting deforestation within their own borders, and less economically developed nations will likely require international assistance in managing these regulations. Because of this, further international agreements must include such mechanisms to provide aid to countries struggling to regulate deforestation and ensure that all nations are held accountable.

To instead provide benefits to companies that have engaged in more environmentally friendly practices, a suggested solution would be for member nations to individually pass legislation that would provide economic incentives for products that were not a result of resources gathered from deforestation, and attempt to negotiate for the passage of such laws in international agreements as well. Similar laws that have already been implemented include the European Union's restrictions on imports of agricultural goods that were grown on deforested land. Because industrial agriculture and its financial benefits is one of the largest incentives for deforestation, such limitations would aid companies with more responsible practices and decentivize both legal and illegal deforestation.⁷⁰

Besides international agreements, nations should also take measures to protect forest land and engage in reforestation efforts. By collaborating with relevant NGOs, member nations must create solutions to environmental problems related to deforestation including soil erosion, wildfires, and loss of biodiversity.

Because reforestation efforts require arable soil and harmful farming practices have often led to soil erosion, governments should attempt to revitalize soil before attempting to repopulate forest land.

 ⁶⁸ Tullis, Paul. "How the World Got Hooked on Palm Oil." The Guardian. Guardian News and Media, February 19, 2019. https://www.theguardian.com/news/2019/feb/19/palm-oil-ingredient-biscuits-shampoo-environmental.
 ⁶⁹ Swain, Frank. "The Wonder Material We All Need but Is Running Out." BBC Future. BBC, March 19, 2021. https://www.bbc.com/future/article/20210308-rubber-the-wonder-material-we-are-running-out-of.

⁷⁰ "Questions and Answers on New Rules for Deforestation-Free Products." European Commission, November 17, 2021. https://ec.europa.eu/commission/presscorner/detail/en/qanda 21 5919.

Suggested solutions include adding manure and organic fertilizers to create more fertile soil, and engaging in more beneficial agricultural practices such as crop rotation. This method causes the soil to become less dependent on a single type of crop, leading to less soil exhaustion.⁷¹ Particularly in areas such as the Amazon Rainforest, which, despite being greatly populated by both animals and trees, has incredibly infertile soil that prevents effective reforestation efforts, efforts to increase the fertility of soil must be prioritized before reforestation.⁷²

In order to combat the loss of biodiversity, countries must expend further effort into identifying and protecting endangered species that exist in forests. By decreasing habitat loss and pollution through legislation and attempting to remove any invasive species from forest habitats can help maintain biodiversity, increasing the chances of survival for endangered species that are threatened by the destruction of forests through commercial deforestation.⁷³

Suggested solutions pertaining to reforestation are largely focused around member nations cooperating with relevant NGOs such as the Eden Reforestation Projects, Conservation International, or the WWF to plant trees in deforested areas to mitigate the impacts of deforestation. However, it must be noted that attempts at large-scale reforestation could lead to further harm to the environment by disrupting the natural water cycle,⁷⁴ and so a specific method of replanting trees while ensuring that they receive enough natural rainfall to be sustainable must be included in the solution.

Another important domestic solution includes the increased funding of scientific research and innovation. Not only will further research into environmental issues such as climate change and global warming aid in understanding the causes and effects of deforestation, but they can also be used to create solutions to the problem as well. For instance, because much of the demand for the logging industry is related to using wood as fuel, discovering and harnessing more sustainable sources of energy could greatly benefit the reduction of the logging industry.⁷⁵ Soil erosion, which often prevents cleared areas

⁷⁴ Scharping, Nathaniel. "Large-Scale Reforestation Efforts Could Dry out Landscapes across the World." Eos, June 24, 2022. https://eos.org/articles/large-scale-reforestation-efforts-could-dry-out-landscapes-across-the-world.

⁷⁵ "Logging." Encyclopædia Britannica. Encyclopædia Britannica, inc. https://www.britannica.com/topic/logging-forestry.

⁷¹ "Natural Resources Conservation Service." NRCS. United States Department of Agriculture. Accessed July 15, 2022. https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/?cid=nrcs142p2_044349.

⁷² "The Amazon: Nutrient-Rich Rainforests on Useless Soils." DW.COM. Deutsche Welle, August 23, 2019. https://www.dw.com/en/the-amazon-nutrient-rich-rainforests-on-useless-soils/a-50139632.

⁷³ "Conservation: Preventing Biodiversity Loss." Encyclopædia Britannica. Encyclopædia Britannica, inc. Accessed July 15, 2022. https://www.britannica.com/explore/savingearth/conservation-preventing-biodiversity-loss.

from being reforested, could also be addressed with scientific innovations in various fertilizers or more sustainable agricultural practices.⁷⁶

As the UN body dedicated to resolving important environmental issues, such solutions must be included in ENV resolutions to fully mitigate the impacts of deforestation in both the short and long term. A combination of fostering bonds of unity through both international cooperation between all member nations and relevant NGOs, domestic efforts to pass environmental legislation, and active efforts to tackle all issues related to the rising rates of deforestation will hopefully be able to bring an end to this urgent issue.

⁷⁶ "Soil Erosion: Effect on Soil Productivity." Iowa State University. https://crops.extension.iastate.edu/encyclopedia/soil-erosion-effect-soil-productivity

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