



# Combating Global Deforestation

UNDP



Empowering Future Generations: Cultivating Global  
Literacy and Enlightenment



**Forum:** United Nation Development Programme (UNDP)

**Issue:** Combating global deforestation

**Student Officer:** Evgenia Chotou

**Position:** President

## Introduction

Deforestation is defined as the conversion of forest to other land uses, regardless of whether it is human induced. It refers to the large-scale clearing, thinning, or removal of forests, often resulting in land use change. It is a significant environmental issue due to its impacts on ecosystems, climate, and biodiversity. Deforestation releases stored carbon, contributing to climate change. Deforestation threatens the habitats of countless species, leading to reduced biodiversity and potential extinction. What's more, indigenous communities that rely on forests for their livelihoods are often displaced. The primary drivers of deforestation include agricultural expansion, livestock grazing, logging, mining, and infrastructure development.

## Definition of Key Terms

### REDD+

REDD+ stands for 'Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks' in Developing Countries" and refers to the provisions of the United Nations Framework Convention on Climate Change (UNFCCC) to provide financial incentives to forest-based approaches to mitigating climate change. It was specifically endorsed in the Paris

### National Action Plan for Climate Change (NAPCC)

The NAPCC is a programme launched in 2008 by the Government of India, in order to mitigate and adapt to the adverse impact of climate change. The action plan is designed and published under the guidance of the Prime Minister's Council on Climate Change (PMCCC). The plan will rely on the support from the developed countries with the prime focus of keeping its carbon emissions below the developed economies at any point of time.

### United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC is the UN process for negotiating an agreement to limit dangerous climate change. It is an international treaty among countries to combat "dangerous human interference with the climate system".

### The UN Climate Change Conference in Glasgow (COP26)



The 2021 United Nations Climate Change Conference, more commonly referred to as COP26, was the 26th United Nations Climate Change conference, held at the SEC Centre in Glasgow, Scotland, United Kingdom, from 31 October to 13 November 2021. The final agreement explicitly mentions coal, which is the single biggest contributor to climate change. Previous COP agreements have not mentioned coal, oil or gas, or even fossil fuels in general, as a driver, or major cause of climate change, making the Glasgow Climate Pact the first ever climate deal to explicitly plan to reduce unabated coal power. The wording in the agreement refers to an intention to "phase down" use of unabated coal power, rather than to phase it out. From this wording it implicitly follows that utilizing coal power with "ablation" need not be reduced. However, this carbon capture and storage is too expensive for most coal fired power stations. Over 140 countries pledged to reach net-zero emissions and more than 100 countries, including Brazil, pledged to reverse deforestation by 2030.

## General Overview

### Primary Causes of Deforestation

Agriculture is the main driver of deforestation in all regions except Europe. Forests being converted into cropland is the main driver of forest loss. According to the UN Food and Agriculture Organization, it causes at least 50% of global deforestation, mainly for oil palm and soybean production. Moreover, subsistence farming contributes significantly to developing regions, where local communities rely on slash-and-burn techniques.

Logging is another significant cause of deforestation. Timber and wood products are in high demand for the construction, furniture, and paper industries. Logging not only removes trees but also damages the surrounding forest ecosystem, making it difficult for the forest to regenerate. Selective logging, where only certain trees are removed, can also cause damage to the forest ecosystem.

As countries develop, there is an increased demand for infrastructure projects, including roads, dams, and settlements. This often requires clearing large areas of forests, leading to deforestation. Mining and resource extraction also play a critical role, particularly in mineral-rich regions.

Climate change is both a cause and a consequence of deforestation and forest degradation. Global temperatures and climate fluctuations trigger fires, droughts and floods that, in turn, cause topsoil erosion and desertification of forest lands.

### Impacts of Deforestation

Deforestation has environmental, economic, social and health-related consequences and it is therefore urgent to take steps that help to reduce the damage.

#### Environmental Impact

Forests harbour a majority of the planet's terrestrial species, therefore their destruction results in loss of biodiversity, with numerous species going extinct. What's more, the loss of



forests also impacts soil carbon storage and disrupts local water cycles. Forests play a crucial role in the water cycle by regulating rain, evaporation from the soil, and groundwater recharge. Deforestation disrupts these processes, causing changes in weather patterns, reduced rainfall, and altered climate conditions. In addition, clearing forests contributes to climate change, as it reduces the Earth's capacity to absorb CO<sub>2</sub> and increases greenhouse gas emissions, ultimately disrupting climate patterns. Loss of tree cover alters local climates, increasing temperatures and reducing moisture levels.

### **Economic Impacts**

Deforestation-driven industries generate revenue and provide livelihoods, but at the cost of long-term ecosystem services. Natural spaces, such as forests and jungles, are direct sources of raw materials, timber, fuel and the components of medicine, meaning that in the long-term, a lack of these resources may lead to economic and environmental instability in dependent regions. Furthermore, changes in climate patterns resulting from deforestation can have significant implications for agricultural productivity. Reduced rainfall and increased temperature extremes can negatively impact crop yields and livestock productivity, leading to food insecurity and economic losses for farming communities. Moreover, increased frequency and severity of extreme weather events such as droughts and floods can disrupt agricultural operations, damage infrastructure, and result in crop failures, exacerbating food shortages and livelihood challenges.

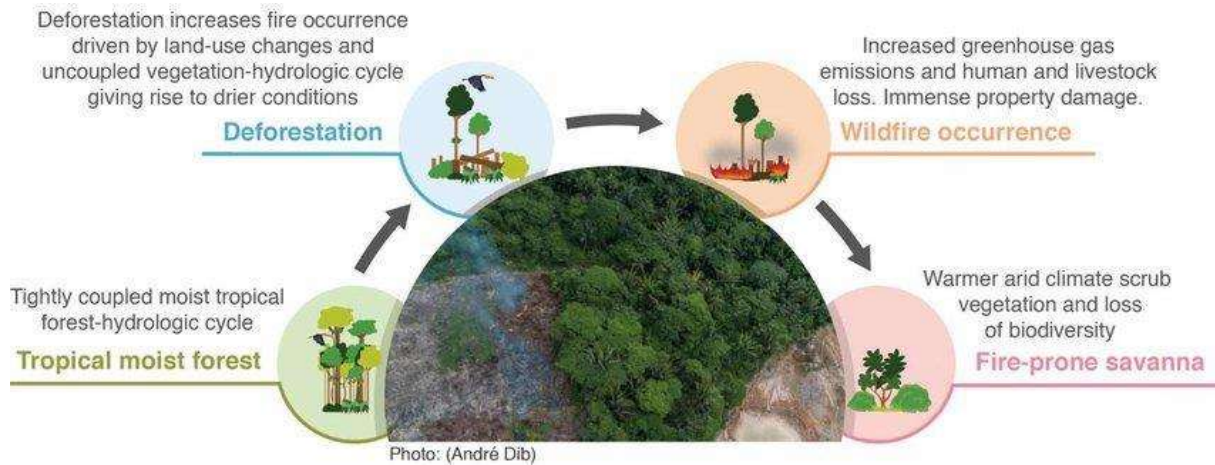
### **Social Impacts**

As large amounts of forests are cleared away, allowing exposed land to deteriorate and the habitats of innumerable species to be destroyed, the Indigenous communities who live there and depend on the forest to sustain their way of life are also under threat. The loss of forests has an immediate and direct effect on their lifestyle. Many Indigenous communities depend on what the forest has to offer for food, medicine, building materials, and cultural resources. Because many of these communities are located in remote areas in dense forests, the loss of these resources poses many challenges to their health and wellbeing. These communities often lack recognition of land tenure; therefore, they face the most immediate and threatening impacts of environmental degradation and climate change.

### **Impacts on Global Health**

When humans destroy their forest habitats, animals and insects seek shelter in the populous villages surrounding forests. Animal migration into human territory leads to an unprecedented amount of contact between humans and wildlife that's not only unnatural but dangerous. This is because animals can spread pathogens to humans. These pathogens cause illnesses known as zoonotic diseases. Sadly, zoonotic diseases are already more prevalent in areas experiencing deforestation. Mosquitos spread malaria to humans, and mosquito populations flourish when biodiversity drops. Malaria is not the only zoonotic disease that arises from deforestation. A 2017 study linked outbreaks of Ebola in Central and

West Africa to the recent loss of forests, citing “more frequent contact between infected wild animals and humans” as a probable cause.



## Major Parties Involved

### Argentina

Argentina is in a forest emergency. According to the National Ministry of Environment and Sustainable Development data, between 1998 and 2021, the loss of native forests in the country was close to 7 million hectares, an area similar to Scotland. Approximately 80% of deforestation is concentrated in four northern provinces: Santiago del Estero, Salta, Chaco and Formosa. Mainly in the Gran Chaco, which is the second largest forest ecosystem in South America and one of the most biodiverse areas in the world, with 3,400 plant species, 500 birds, 150 mammals, 120 reptiles and 100 amphibians. Although deforestation has decreased since 2014, half of the deforestation occurs in areas where it is not permitted. On the other hand, forest fires have increased significantly in the last three years. The main cause of the loss of native forests in Argentina is the growth of the agricultural industry, mainly for intensive livestock farming and genetically modified soybeans, which are mostly exported to Asia and Europe. In 2007, Argentina enacted a national “forest law” mandating that local governments regulate the expansion of large-scale farming and establish practices to protect native forests. However, research shows that local governments were unable to enforce the law in certain protected zones, some of which experienced an increase in deforestation after the law was passed.

### Brazil

Brazil has experienced high levels of tropical forest clearing throughout its past. Between 2005 and 2010, Brazil made progress in addressing deforestation issues. At the 2009 United Nations Climate Change Conference, Brazil announced its National Action Plan for Climate Change (NAPCC), aimed at reducing greenhouse gas emissions. The plan targets an 80 percent reduction in deforestation in the Amazon region by 2015. Prior to announcing the

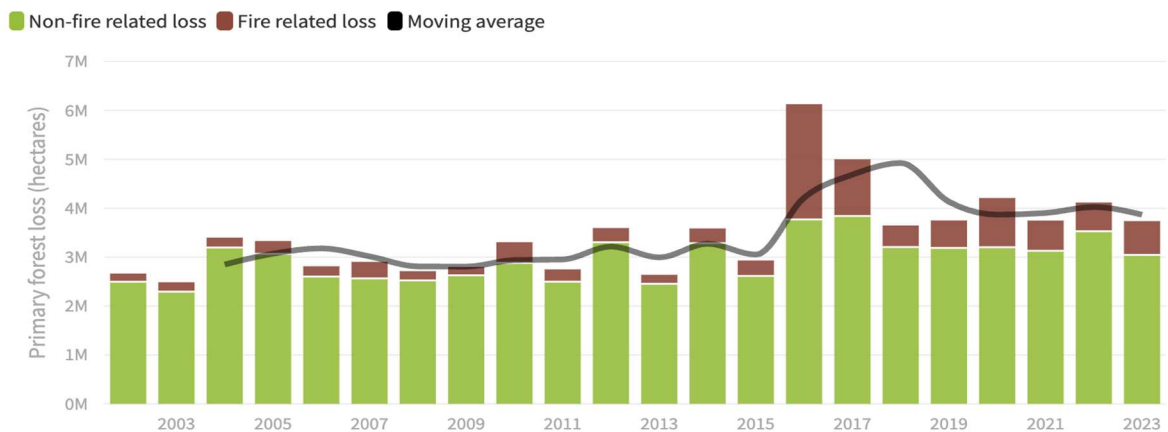


plan in 2009, Brazilian President Luiz Inácio Lula da Silva had announced Brazil's commitment to reduce Amazon deforestation 80 percent below its historic baseline over the next 10 years. However, in a time when the Brazilian government's support is uncertain, a deforestation strategy with clearly defined international support and funding mechanisms may be the only reliable method of ensuring deforestation mitigation.

## Ghana

Over recent years, Ghana has experienced some of the highest deforestation rates in the world. The country has seen a 28% decline in forest cover since 1990, largely due to the expansion of cocoa farming, as well as illegal "galamsey" gold mining, and timber extraction. Ghana's remaining tropical forests are now mainly found in protected areas, such as reserves and national parks, and are home to many rare and endangered plants, mammals, birds, reptiles, amphibians and insects. Ghana has implemented various initiatives to combat deforestation. Despite that, the situation persists.

### Tropical primary forest loss, 2002-2023



Non-fire related loss can occur from mechanical clearing for agriculture and logging, as well as natural causes such as wind damage and river meandering. The three-year moving average may represent a more accurate picture of the data trends due to uncertainty in year-to-year comparisons. All figures calculated with a 30 percent minimum tree cover canopy density.

## The World Resources Institute (WRI)

The World Resources Institute (WRI) is a global research non-profit organization established in 1982 in Washington, D.C. with a founding grant of \$15 million from the John D. and Catherine T. MacArthur Foundation. Over time, WRI evolved into a global organization focused on turning research into results. The organization now boasts nearly 1,800 staff around the world. WRI aims to fundamentally transform the world's food, land and water; energy; and cities, as well as the economic, finance and governance structures that underpin these key systems. The organization works across several topics to achieve systemic change globally.

## Worldwide Fund for Nature

The Worldwide Fund for Nature (WWF) is a Swiss-based international non-governmental organization founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment. It is the world's largest conservation





organization, with over five million supporters worldwide, working in more than 100 countries and supporting around 3,000 conservation and environmental projects. Moreover, they have invested over \$1 billion in more than 12,000 conservation initiatives since 1995. The organization convinces and helps governments and other political bodies to adopt, enforce, strengthen and/or change policies, guidelines and laws that affect biodiversity and natural resource use. It also ensures government consent and/or keeps their commitment to international instruments relating to the protection of biodiversity and natural resources

## Timeline of Events

- |      |   |
|------|---|
| 1972 | The United Nations Conference on the Human Environment (Stockholm Conference) takes place, marking the first global discussion of environmental issues, including deforestation. However, no binding resolutions on forestry are established.                   |
| 1973 | The World Resources Institute (WRI) is established, focusing on environmental issues such as forest conservation.   |
| 1975 | The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is adopted, aiming to protect species threatened by deforestation and illegal logging.  |
| 1981 | The International Tropical Timber Organization (ITTO) is proposed to promote the sustainable management of tropical forests.  |
| 1989 | The Tropical Forest Action Plan (TFAP) launched by FAO and partners aimed to address tropical deforestation through development assistance.   |
| 1997 | The Kyoto Protocol encouraged forest conservation as part of carbon sink initiatives to combat climate change.  |
| 2000 | The Global Environment Facility (GEF) launches initiatives aimed at forest conservation, including the International Forests and Carbon Program   |
| 2002 | The United Nations Forum on Forests (UNFF) is established as part of the UN Economic and Social Council to strengthen international cooperation on forest management.   |
| 2006 | The UN's REDD (Reducing Emissions from Deforestation and Forest Degradation) initiative is launched, aiming to create financial incentives for developing countries to reduce deforestation and forest degradation as part of global climate change mitigation. |
| 2008 | The UN launched the Reducing Emissions from Deforestation and Forest Degradation (REDD) initiative to incentivize forest preservation by assigning financial value to carbon stored in forests.   |



2009	The Copenhagen Climate Conference (COP 15) sees the launch of REDD+, an expanded version of the REDD initiative, offering financial support to developing countries for reducing emissions from deforestation and forest degradation.
2013	The Cocoa and Forests Initiative is launched to address deforestation driven by cocoa production, involving governments, chocolate companies, and NGOs.
2014	The New York Declaration on Forests aimed to halve deforestation by 2020 and end it by 2030. Over 200 organizations, including governments and NGOs, signed on it.
2015	The Paris Agreement is signed at COP 21 and recognizes the importance of halting deforestation and restoring degraded land to mitigate climate impacts.
2018	The Bonn Challenge aims to restore 150 million hectares of the world's deforested and degraded land by 2020, with a longer-term goal of 350 million hectares by 2030.
2021	At COP26 in Glasgow, over 140 countries pledged to halt and reverse deforestation by 2030. Major financial commitments were made, including \$19 billion for forest preservation.
2022	The UN Decade on Ecosystem Restoration (2021-2030) begins, with a focus on forest restoration and halting deforestation

## Previous attempts to solve the issue

### The Kyoto Protocol

The Kyoto Protocol is an international treaty adopted in 1997 that aimed to reduce the emission of gases that contribute to global warming. The protocol called for reducing the emissions of six greenhouse gases in 41 countries plus the European Union to 5.2 percent below 1990 levels. It was widely hailed as the most significant environmental treaty ever negotiated. The Kyoto Protocol was adopted as the first addition to the United Nations Framework Convention on Climate Change (UNFCCC). The signatories of the Kyoto Protocol committed to develop national programs to curtail the long-term effects of global warming. The protocol provided several means for countries to reach their targets, such as the Clean Development Mechanism and emissions trading.

### Forest Stewardship Council (FSC)

The Forest Stewardship Council (FSC) is an international non-profit, multistakeholder organization established in 1993 as a response to concerns over global deforestation. It promotes responsible management of the world's forests through timber certification.





According to the council, the use of the FSC logo signifies that a product comes from environmentally, socially, and economically responsible sources. In addition to its global certification standard, FSC develops national standards in selected countries through its 10 Principles and associated Criteria (FSC P&C).

## Possible solutions

### Creating and enforcing strong legal frameworks

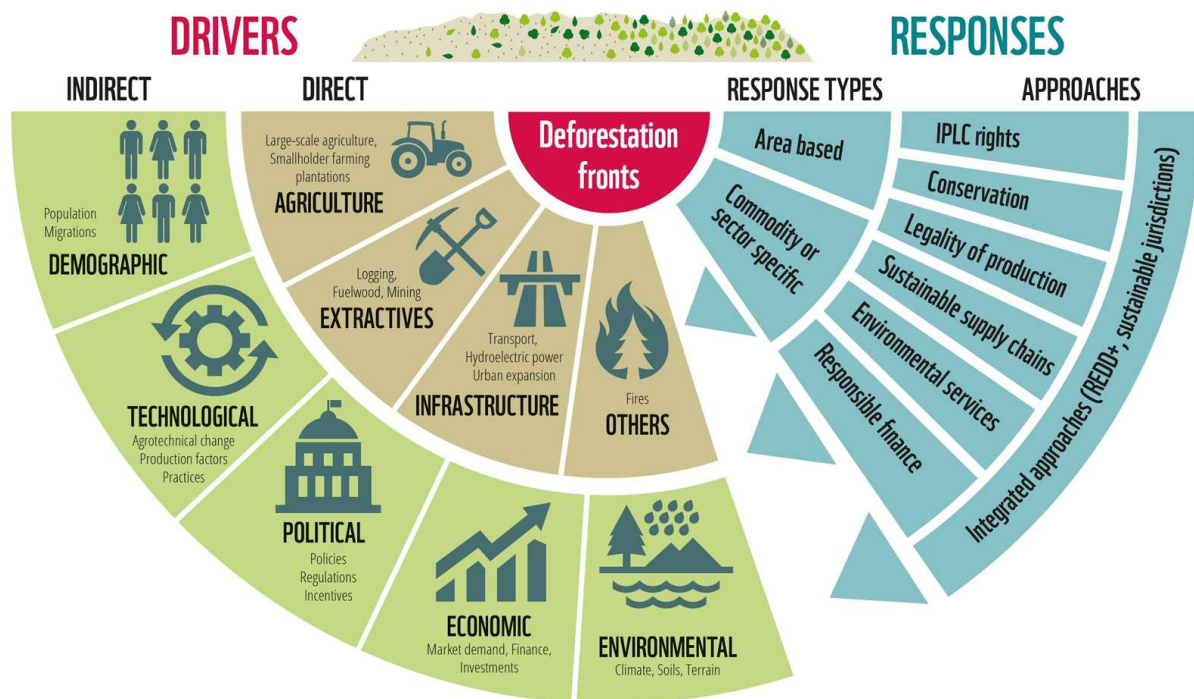
The enforcement of deforestation laws and land-use regulations, as well as monitoring deforestation activity, can provide the structure necessary for long-term forest protection, ensuring that deforestation activities are minimized and that forest ecosystems are managed sustainably. Governments can pass comprehensive laws that regulate forest use, ensuring that forests are protected from illegal logging, land conversion for agriculture, and unsustainable timber extraction. Moreover, creating permitting systems for logging operations, stipulating the amount of timber that can be harvested, and implementing regulations around clear-cutting and replanting, governments can make significant strides toward combating deforestation.

### Education and public awareness campaigns

Education and public awareness campaigns are vital tools for combating global deforestation, as they can influence public attitudes, behaviour, and policy support. Governments can fund campaigns to raise awareness about the environmental impact of deforestation, influencing consumer behaviour to favour sustainably sourced products. In addition, public education campaigns can highlight the critical role forests play in carbon sequestration, biodiversity conservation, water regulation, and supporting livelihoods. What's more, the introduction of environmental education programs in schools, where students learn about deforestation, its causes, and the solutions can help encourage young people to engage in activities like tree planting, environmental clubs, or social media advocacy.

### Incentivizing sustainable land use

An efficient way to reduce deforestation and encourage environmentally friendly behaviour among landowners, farmers, and companies is to offer incentives for sustainable land use. Governments can encourage landowners and stakeholders to prioritize sustainability instead of deforestation-causing behaviours by providing financial, legal, and social incentives. Landowners who manage their property in a way that preserves these important ecosystem services may be eligible for financial incentives from governments, non-governmental organizations, or commercial entities. For example, a farmer might be compensated for reforesting degraded land or for refraining from cutting forest land for agricultural expansion.



## Useful documents

### Battling Deforestation in Brazil: Implementing aREDD Framework to Combat Global Climate Change

*Description:* This paper analyses Brazil's situation in the context of the policies discussed and Panama's experiences and will make policy recommendations on potential best practices that Brazilian policymakers should take into consideration to strengthen and expand the implementation of Brazil's deforestation programs.

<https://doi.org/10.4079/pp.v20i0.11783>

### Two Global Challenges, One Solution: International Cooperation to Combat Climate Change and Tropical Deforestation

*Description:* This paper provides an analysis of the international political dynamics around the reduction of tropical deforestation and forest degradation as a climate mitigation strategy, emphasizing the necessity of an enabling environment and sustainable financing to support the scaling up of these efforts globally.

[https://www.cgdev.org/sites/default/files/CGD-Climate-Forest-Paper-Series-14-LaVina-DeLeon-International-Cooperation\\_0.pdf](https://www.cgdev.org/sites/default/files/CGD-Climate-Forest-Paper-Series-14-LaVina-DeLeon-International-Cooperation_0.pdf)

### National Action Plan for Climate Change & Human Health



*Description:* This document assesses the current situation of the country with regard to climate change risk and outlines the NCCAP's strategic direction for 2011 to 2028 as a response to the current situation and projected impact.

<https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://ncdc.mohfw.gov.in/wp-content/uploads/2024/04/27505481411548674558.pdf&ved=2ahUKEwjKz930uviKAxW9RvEDHTdnCeoQFnoECBoQAQ&usg=AOvVaw14Ftg3CWiLlwOBhjjhMKlZ>

## Bibliography

Encyclopædia Britannica. (n.d.). *Kyoto Protocol*. Britannica.

<https://www.britannica.com/event/Kyoto-Protocol>

European Parliament. (2022). *Deforestation: Causes and how the EU is tackling it*. European Parliament.

<https://www.europarl.europa.eu/topics/en/article/20221019STO44561/deforestation-causes-and-how-the-eu-is-tackling-it>

CK-12 Foundation. (n.d.). *Deforestation: Causes and consequences*. CK-12.

<https://flexbooks.ck12.org/cbook/cbse-science-class-8/section/5.1/primary/lesson/deforestation-causes-and-consequences/>

Le.mu. (n.d.). *Effects and causes of deforestation: Find out what we can do about it*. Le.mu Blog. <https://le.mu/blog/ecology/effects-and-causes-of-deforestation-find-out-what-we-can-do-about-it/>

Freie Universität Berlin. (n.d.). *Impacts of deforestation*. FU Berlin. [https://www.geo.fu-berlin.de/en/v/iwrm/Implementation/water\\_and\\_the\\_physical\\_environment/Human-impact/deforestation/Impacts-of-deforestation/index.html](https://www.geo.fu-berlin.de/en/v/iwrm/Implementation/water_and_the_physical_environment/Human-impact/deforestation/Impacts-of-deforestation/index.html)

The Humane League. (n.d.). *Effects of deforestation*. The Humane League.

<https://thehumaneleague.org/article/effects-of-deforestation>

Greenpeace International. (n.d.). *This is what deforestation looks like in Argentina in 10 shocking photos*. Greenpeace. <https://www.greenpeace.org/international/story/66834/this-is-what-deforestation-looks-like-in-argentina-in-10-shocking-photos/>

The Conversation. (2024). *Ghana's forests are being wiped out: What's behind this and why attempts to stop it aren't working*. The Conversation. <https://theconversation.com/ghanas-forests-are-being-wiped-out-whats-behind-this-and-why-attempts-to-stop-it-arent-working-229739>

World Resources Institute. (n.d.). *Home page*. WRI. <https://www.wri.org/>