United Nations Environment Programme (UNEP) Background Guide

I. Addressing the Loss of Biodiversity in OceansII. Preventing Deforestation



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Written June 2023

The United Nations Environment Programme (UNEP) is the leading global authority on the environment. Following the landmark UN Conference on the Human Environment, UNEP was founded in 1972 with a mission of monitoring the state of the environment, informing policy making with science, and coordinating responses to the world's environmental challenges.²

UNEP has worked with governments, civil society, the private sector, and UN entities to address humanity's most pressing environmental challenges, from restoring the ozone layer to protecting the world's seas and promoting a green, inclusive economy. As their mission expands and rises to meet the ever-growing need of the modern environment, UNEP has focused its efforts into six areas of concentration: (1) climate change, (2) post-conflict and disaster management, (3) ecosystem management, (4) environmental governance, (5) harmful substances, and (6) resource efficiency/sustainable consumption.³

I. Addressing the Loss of Biodiversity in Oceans

Statement of the Issue:

Oceans cover 70 percent of the planet and provide food, energy, and water.⁴ About 80 percent of life on Earth is found in the ocean, spread across countless ecosystems.⁵ The biodiversity in oceans is vast; life in the ocean ranges from the smallest microscopic bacteria and viruses to the largest animals ever to have lived on Earth, creating an amazingly diverse system. Additionally, oceans play a vital role in mitigating climate change and alleviating its impacts as

¹ About the United Nations Environment Programme." UNEP. https://www.unep.org/about-us.

² "50 Years of Environmental Milestones." UNEP, 2022. https://www.unep.org/environmental-moments-unep50-timeline#:~:text=Founded%20in%201972%20following%20the,to%20the%20world's%20environmental%20challe nges.

³ "UNEP: United Nations Environment Programme." United Nations.

https://www.un.org/youthenvoy/2013/08/unep-united-nations-environment-programme/.

⁴ "Oceans - United Nations Sustainable Development." United Nations.

https://www.un.org/sustainabledevelopment/oceans/.

⁵ "UNEP and Biodiversity." UNEP. https://www.unep.org/unep-and-biodiversity#:~:text=Biological%20diversity%20is%20the%20variety,of%20human%20influence%20as%20well.

the ocean absorbs around 25 percent of the world's annual carbon dioxide emissions. ⁶ Biological diversity is the variety of life on Earth and the natural patterns it forms. Species are now disappearing hundreds, or even thousands, of times faster than the natural background rate of extinction.

Goal 14 of the UN Sustainable Development Goals (SDGs) is about conserving and sustainably using the oceans, seas, and marine resources. The UN supports the protection and advancement of healthy oceans and seas as they are essential to human existence and life on Earth. While the primary biodiversity goals, SDG 14 and 15, seek to conserve and sustainably use the marine and terrestrial environment, all 17 SDGs ultimately depend on healthy ecosystems and biodiversity. In this mission, the UN advances the health of the planet as a means of advancing people's health and well-being. 8

A UN Report, entitled "Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating," released in 2019, warned that the current rate of species extinction is at historic levels and was "accelerating" as of the date published. 9 Approximately one million animal and plant species are under threat of extinction, many of which can disappear within years. More than 40% of amphibian species, almost 33% of reef-forming corals, and more than a third of all marine mammals are all facing extinction. 10

Marine ecosystems are severely impacted by the continuing ocean acidification and rising ocean temperatures. Rising temperatures increase the risk of irreversible loss of marine and coastal ecosystems. Live coral reefs have nearly halved in the past 150 years, and further warming threatens to destroy almost all remaining reefs. Between 2009 and 2018 alone, the world lost about 14 percent of coral reefs. The number of animal and plant species under threat

⁶ "Oceans - United Nations Sustainable Development." United Nations.

⁷ Palmer, Cristiana Paşca. "Marine Biodiversity and Ecosystems Underpin a Healthy Planet and Social Well-Being." United Nations, May 2017. https://www.un.org/en/chronicle/article/marine-biodiversity-and-ecosystems-underpinhealthy-planet-and-social-well-being

⁸ "UNEP and Biodiversity." UNEP. https://www.unep.org/unep-and

biodiversity#:~:text=Biological%20diversity%20is%20the%20variety,of%20human%20influence%20as%20well.

⁹ "UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating.'" United Nations, 2019. https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/.

^{10 &}quot;UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating."

¹¹ "Biodiversity - Our Strongest Natural Defense Against Climate Change." United Nations. https://www.un.org/en/climatechange/science/climate

issues/biodiversity#:~:text=Biological%20diversity%20%E2%80%94%20or%20biodiversity%20%E2%80%94%2 is,evolution%2C%20increasingly%20influenced%20by%20humans.

¹² UNEP and Biodiversity." UNEP.

has never been higher and is brought on by human activities such as logging, mining, and coastal development, all of which have severely impacted land and marine ecosystems and habitats. Despite global efforts, the loss of biodiversity in the oceans is a large issue that requires immediate action.

The impacts of this loss are profound. Over half the world's total GDP is moderately or highly dependent on nature, which also provides medicine and social benefits. Oceans also play a vital role in mitigating the climate crisis and are a source of protein for some 3 billion people. Furthermore, much of the oceans has yet to be explored, meaning that countless species, of which there is little information, could be the source of novel medicines and materials.¹³

History:

The 1972 United Nations Conference on the Human Environment in Stockholm was the first world conference to make the environment a major issue. The participants adopted several key agreements for effective management of the environment including the Stockholm Declaration and Action Plan for the Human Environment as well as several resolutions. The Stockholm Declaration, which contained 26 principles, placed environmental issues at the forefront of international concerns and marked the start of a dialogue between industrialized and developing countries on the link between economic growth, the pollution of the air, water, and oceans and the well-being of people around the world. From this point, the international community has made strides in advancing the environmental mission globally including protecting oceanic biodiversity.

The UN Convention on Biological Diversity (CBD) is the international legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources." Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. As of modern day, the treaty has

¹³ "Oceans - United Nations Sustainable Development." United Nations. https://www.un.org/sustainabledevelopment/oceans/.

¹⁴ "United Nations Conference on the Human Environment, Stockholm 1972." United Nations. https://www.un.org/en/conferences/environment/stockholm1972.

¹⁵ "Convention on Biodiversity." United Nations. https://www.un.org/en/observances/biological-diversity-day/convention.

been ratified by all UN member states with the notable exception of the United States.¹⁶ The treaty's overall objective is to encourage actions, and among other achievements, CBD has pushed countries to create national biodiversity strategies and to expand their networks of protected areas which will lead to a sustainable future.¹⁷

The UN Environment Programme (UNEP), particularly through its Regional Seas Programme, acts to protect oceans and seas and promote the sustainable use of marine resources. The Regional Seas Conventions and Action Plans is the world's only legal framework for protecting the oceans and seas at the regional level. UNEP also created The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. It is the only global intergovernmental mechanism directly addressing the link between terrestrial, freshwater, coastal, and marine ecosystems.¹⁸

The centrality of marine biodiversity to sustainable development was recognized in the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), in which SDG 14 emphasizes the strong links between marine biodiversity and broader sustainable development objectives. In fact, many elements of SDG 14 and several other SDGs reflect the same objectives and principles agreed upon under the Aichi Biodiversity Targets. ¹⁹ The Aichi biodiversity targets were established in 2011 by the UN Convention of Biological Diversity and consist of 20 specific targets to address and mitigate biodiversity loss across the globe. However, as of 2020, when the goals were set to be achieved, none of the Aichi biodiversity targets been achieved at a global level. Out of the 20 goals, only six were partially achieved, 38 have shown progress while 13 have shown no progress. ²⁰ Therefore, efforts at different scales to achieve the Aichi Targets will directly contribute to implementing the 2030 Agenda for Sustainable Development and achieving the SDGs.

Analysis:

¹⁶ Jones, Benji. "Why the US Won't Join the Single Most Important Treaty to Protect Nature." Vox, May 20, 2021. https://www.vox.com/22434172/us-cbd-treaty-biological-diversity-nature-conservation.

¹⁷ Jones, Benji. "Why the US Won't Join the Single Most Important Treaty to Protect Nature."

¹⁸ "Oceans and the Law of the Sea." United Nations. Accessed May 31, 2023. https://www.un.org/en/global-issues/oceans-and-the-law-of-the-sea.

¹⁹ Lai, Olivia. "What Are the Aichi Biodiversity Targets?" Earth.Org, August 19, 2022. https://earth.org/what-are-the-aichi-biodiversity-targets/.

²⁰ Lai, Olivia. "What Are the Aichi Biodiversity Targets?" https://earth.org/what-are-the-aichi-biodiversity-targets/.

Marine biodiversity, the variety of life in the ocean and seas, is a critical aspect of all three pillars of sustainable development—economic, social, and environmental. Biodiversity in the oceans supports the healthy functioning of the planet and provides services that underpin the health, well-being, and prosperity of humanity.²¹

The Convention on Biological Diversity states that biological diversity is about more than plants, animals and micro-organisms and their ecosystems; it is also about people and their need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live.²² Biodiversity is not just an environmental issue, but a global health issue and one that is vital for any future on this planet. As of March 2023, after a decade of talks, more than 190 countries came to an agreement to protect biodiversity in the world's oceans from threats such as overfishing, climate change, and deep-sea mining.²³

The final agreement, titled The Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ), provides a framework to set up new protected areas in waters outside any one nation's jurisdiction. The agreed upon areas would cover 30 percent of the world's seas and be in place by 2030. Despite the final success, several issues arose during the debate to reach this agreement including disagreements over funding, fishing rights, and the sharing of genetic resources, which have the potential to cause future struggle in implementing the treaty. The High Seas Treaty, as the BBNJ is alternatively referred to, is a legally binding instrument under the UN Convention on the Law of the Sea (UNCLOS)²⁴. While the treaty must still be adopted by member countries individually on a national level, it was hailed by conservationists as a major win.²⁵

Conclusion:

²¹ Palmer, Cristiana Paşca. "Marine Biodiversity and Ecosystems Underpin a Healthy Planet and Social Well Being." United Nations, May 2017. https://www.un.org/en/chronicle/article/marine-biodiversity-and-ecosystems underpin-healthy-planet-and-social-well-being.

²² "Convention on Biodiversity." United Nations. https://www.un.org/en/observances/biological-diversity-day/convention.

²³ Braine, Theresa. "Nearly 200 Countries Reach Landmark Deal on Preserving Ocean Biodiversity in International Waters." New York Daily News, March 5, 2023. https://www.nydailynews.com/news/world/ny-190-countries-landmark-deal-preserve-ocean-biodiversity-climate-change-mining-20230306-sgffksp2bfbghjofqjkzfm63ke-story.html.

²⁴ A Brief Introduction to the High Seas Treaty. Accessed June 1, 2023. https://www.gard.no/web/articles?documentId=35175276.

²⁵ Braine, Theresa. "Nearly 200 Countries Reach Landmark Deal on Preserving Ocean Biodiversity in International Waters." New York Daily News.

Even with international cooperation in biodiversity initiatives on the rise, the global community faces barriers to developing a cohesive strategy. In an analysis of the 2018-2020 UN discussions about marine biodiversity, three main areas of contention were highlighted: (1) the politicization of science and coping with scientific uncertainty, (2) institutional fragmentation; and (3) the need for a new agreement to respond to the complex set of multiple, multilevel, and systemic threats to marine biodiversity beyond national jurisdiction. As oceans are a shared resource without any national jurisdiction, the effective management of their biodiversity is a complex issue that requires a profound amount of international communication and management.

Ouestions:

- 1. Who do you believe should be responsible for maintaining and advancing the biodiversity of the oceans?
- 2. Where is the line between fishing to sustain livelihoods and food resources for developing nations and advancing the protection of the oceans?
- 3. How can the international community better cooperate to protect the shared resource that is the world's oceans?
- 4. How can UNEP push for states to ratify and abide by international environmental law?

II. Preventing Deforestation

Statement of the Issue:

Deforestation affects ecosystems, climate, and even increases the risk of diseases spreading to humans. Farming, livestock grazing, mining, and drilling combined account for more than half of all deforestation. Forestry practices, wildfires and, to a much lesser extent, urbanization account for the rest.²⁷ Coupled with the small percentage of deforestation caused by natural factors such as wildfires, deforestation has grown alarmingly.

²⁶ De Santo, E.M., Á. Ásgeirsdóttir, A. Barros-Platiau, F. Biermann, J. Dryzek, L.R. Gonçalves, R.E. Kim, et al. "Protecting Biodiversity in Areas beyond National Jurisdiction: An Earth System Governance Perspective." *Earth System Governance* 2 (2019): 100029. https://doi.org/10.1016/j.esg.2019.100029.

²⁷ "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals." United Nations, July 2020. https://news.un.org/en/story/2020/07/1068761.

Forests are a vital part of both environmental and human health with around 1.6 billion people globally depending on forests for their livelihood. However, estimates put the rate of loss between 7 and 12 million hectares of forest annually, area roughly the size of the Republic of Ireland.²⁸ Due to this accelerated human-caused deforestation, irreplaceable ecosystems like parts of the Amazon rainforest are turning from carbon sinks into carbon sources due to deforestation. Carbon sinks are anything that absorbs more carbon from the atmosphere than it releases. They combat climate change because of their capacity to remove carbon from the atmosphere. Forests are an especially important carbon sink as they are not only absorb carbon but are able to store it, which is called forest mitigation.²⁹ The profound impact that forests have on mitigating global warming cannot be overstated as they can provide up to a third of the mitigation required to keep global warming well below two degrees Celsius.³⁰ Currently, deforestation and forest degradation accounts for 11 percent of carbon emissions.³¹

According to The State of the World's Forests 2020 (SOFO) Report developed by UNEP and the Food and Agriculture Organization, in the past 30 years, 420 million hectares of forest had been lost through conversion to other land uses, which is larger than the size of India. Furthermore, the report stated that another 100 million hectares are at risk. Most of this loss is contained in tropical areas including parts of Africa and South America with the top countries for average annual net losses of forest area over the last 10 years being Brazil, the Democratic Republic of the Congo, Indonesia, Angola, Tanzania, Paraguay, Myanmar, Cambodia, Bolivia, and Mozambique. Mozambique. Salva and Mozambique.

A movement is under way to preserve existing forest ecosystems and restore lost tree cover by first reforesting and ultimately rewilding which represents a more comprehensive mission to restore entire ecosystems.³⁴ Aggressive efforts to rewild and reforest are already

^{28 &}quot;UNEP and Biodiversity." UNEP. Accessed May 31, 2023. https://www.unep.org/unep-and-biodiversity#:~:text=Biological%20diversity%20is%20the%20variety,of%20human%20influence%20as%20well

²⁹ "Why Do Forests Matter?" UNEP. Accessed June 5, 2023. https://www.unep.org/explore-topics/forests/why-doforests-matter.

³⁰ "REDD+." UNEP. https://www.unep.org/explore-topics/climate-action/what-we-do/redd.

³¹ "Deforestation Fact Sheet." UNEP. https://www.unep.org/resources/factsheet/deforestation.

³² "Inside the Global Effort to Save the World's Forests." UNEP. 2021. https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests.

³³ "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals." United Nations, July 2020. https://news.un.org/en/story/2020/07/1068761.

^{34 &}quot;Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals."

showing success. With both successes and losses in forest preservation in recent years, the rate of forest loss has declined substantially over the past three decades. The annual rate of deforestation was estimated at 10 million hectares between 2015-2020, compared with 12 million during 2010-2015.³⁵ However, the rate of deforestation is still untenable and will cause irreparable damage to the world and its inhabitants if it continues.

Beyond the climate change aspects of deforestation, the repercussions of deforestation extend into the medical, food security, and human well-being spheres among other areas. There is also the imminent danger of disease caused by deforestation.³⁶

History:

For the last five decades, UN agencies, development institutions, governments, conservationists, the private sector, and other key stakeholders have worked together to help protect the world's forests, many of which are buckling under various pressures, including agriculture, resource extraction and illegal logging.³⁷ The United Nations Environment Programme has played an important role as both a facilitator of action and catalyst in supporting the global movement to slow deforestation.

UNEP's work on forests is spread across several programs and partnerships. Specifically, the Reducing Emissions from Deforestation and Forest Degradation (REDD) initiative has played a central role in combating climate change. The protection and restoration of forests is also tied directly to the current UN Decade on Ecosystem Restoration.³⁸ The UN Decade on Ecosystem Restoration aims to prevent, halt, and reverse the degradation of ecosystems on every continent and in every ocean and is led by UNEP and the Food and Agriculture Organization.³⁹

In 2021, more than 100 world leaders promised to end and reverse deforestation by 2030 at the COP26 UN Climate Change Conference. The pledge which included almost \$19.2 billion of public and private funds, was hailed as a landmark move for nature. At COP27 in Sharm el-Sheikh, the international community built upon this progress by creating the Forest and Climate

³⁵ "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals." United Nations, July 2020. https://news.un.org/en/story/2020/07/1068761.

³⁶ Nunez, Christina. Why deforestation matters—and what we can do to stop it, December 7, 2022. https://www.nationalgeographic.com/environment/article/deforestation.

³⁷ "Inside the Global Effort to Save the World's Forests." UNEP. 2021. https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests.

³⁸ UN Decade on Restoration. Accessed June 5, 2023. https://www.decadeonrestoration.org/.

³⁹ "Inside the Global Effort to Save the World's Forests." UNEP. 2021.

Leaders' Partnership (FCLP), which aims to unite action by governments, businesses, and community leaders. Twenty-seven countries, representing over 60% of global GDP and 33% of the world's forests, have already joined the new partnership and are committed to leading by example on one or more of the FCLP's action areas.⁴⁰

Furthermore, UNEP has also championed the Green Gigaton Challenge, an ambitious public-private partnership to catalyze funding to deliver 1 gigaton (1 billion metric tons) of emissions reductions by 2025 and annually after that. One gigaton of annual emissions reductions from REDD+ is the order of what is needed to cost-effectively achieve the current Paris Agreement pledges.⁴¹ Tropical tree cover can potentially provide 23 percent of the climate mitigation needed to meet goals set in the Paris Agreement in 2015, according to one estimate.⁴²

UNEP worked with the World Conservation Monitoring Centre to assess global rates of forest loss and joined with the Global Environment Facility, the World Bank, the International Union for the Conservation of Nature and six African nations to launch the \$63 million Congo Basin Sustainable Landscapes Program in 2019. Since Africa had the highest net loss of forest area from 2010 to 2020 and Africa's rate of deforestation is on the rise, UNEP places the specific protection of African forest reserves at a premium. UNEP has also pushed the international finance sector to provide real valuations for forest loss and to tie development to green standards and fair-trade practices.

UNEP has been a key player in protecting the world's most vulnerable forests, adapting their efforts to serve populations around the world. In Vietnam, UN-REDD assisted shrimp farmers in designing an organic farming model that helps to protect fragile mangrove forests. In Nigeria, UN-REDD promoted forest management and biodiversity conservation, improving rural livelihoods. In Mongolia, UN-REDD is working alongside local partners to develop a national forest and climate change strategy focused on sustainable forest management. Local communities were brought into the conservation dialogue in Colombia through UN-REDD

⁴⁰ "COP27: Leaders Boost Sustainable Forest Management." Unfccc.int, November 2022. https://unfccc.int/news/cop27-leaders-boost-sustainable-forest-management.

⁴¹ "Green Gigaton Challenge." UNEP. https://www.unep.org/explore-topics/forests/what-we-do/green-gigaton challenge.

⁴² "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals." United Nations, July 2020. https://news.un.org/en/story/2020/07/1068761.

⁴³ "Inside the Global Effort to Save the World's Forests." UNEP. 2021.

⁴⁴ "Inside the Global Effort to Save the World's Forests." UNEP. 2021. https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests.

supported workshops and training sessions. The education and outreach aspects of preventing deforestation are important to the work that UN-REDD does.

Analysis:

The State of the World's Forests 2020 stated, "Deforestation and forest degradation continue to take place at alarming rates, which contributes significantly to the ongoing loss of biodiversity." There was a strong emphasis placed on the importance of forests, with the report warning that the Sustainable Development Goals would not be met by 2030 unless dramatic changes occurred in the agroforestry, agribusiness, and agriculture sectors. 46

SDG 15 is about conserving life on land. It aims to protect and restore terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and stop biodiversity loss. ⁴⁷ This goal is then broken down into twelve smaller targets of which several pertain to forest ecosystems including Target 15.B: Finance and Incentivize Sustainable Management and most notably 15.2: End Deforestation and Restore Degraded Forests. ⁴⁸

As far back as the 1970s, UNEP had been charged with crafting an international compact capable of halting deforestation. UNEP worked with major development agencies, such as the World Bank, Food and Agriculture Organization and the United Nations Development Programme, to combat deforestation on the ground. Efforts were hindered by deep political divides that created a system in which developed nations known as the Global North largely drove forest development, while most major forests existed in developing nations in the Global South. In reevaluating strategy, UNEP has worked diligently to make the deforestation effort a more inclusive and consensus-based objective. However, the divide still plays a large role in the debate and potential solutions.

Furthermore, the rate and cause of deforestation across the world varies greatly. In Malaysia and Indonesia, forests are cut down to make way for producing palm oil, which can be found in everything from shampoo to saltine crackers. In the Amazon, cattle ranching, and farms,

⁴⁵ "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals." United Nations, July 2020. https://news.un.org/en/story/2020/07/1068761.

⁴⁶ "Inside the Global Effort to Save the World's Forests." UNEP. 2021. https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests.

⁴⁷ "Goal 15 | Department of Economic and Social Affairs." United Nations. https://sdgs.un.org/goals/goal15.

⁴⁸ "Goal 15: Life on Land." The Global Goals, April 18, 2023. https://www.globalgoals.org/goals/15-life-on-land/.

particularly soy plantations, are key culprits.⁴⁹ This means that goals and solutions require the flexibility to be tackled across different circumstances and resource levels worldwide.

Conclusion:

UNEP has identified three building blocks that are essential for a global transformation in the protection and sustainable management of forests: know-how, enabling conditions, and finance. In terms of investment, the potential gains are enormous: By investing \$30 billion in fighting deforestation, the UN estimates a return of \$2.5 trillion in saved products and services. Targeted investments in forestry can also generate up to millions of jobs. However, the division of this financing are a main source of contention in deforestation prevention. Efforts require universal political prioritization and large investments as well as a shift in attitudes toward natural resource use globally if they hope to create enough substantial change to save the forests before it's too late.

Questions:

- 1. How can UNEP encourage dialogue on the issue of preventing deforestation?
- 2. Is there an issue of jurisdiction and sovereignty when dictating use of forested land within sovereign countries?
- 3. In considering the social inequality ramifications of exploitation of natural resources, is it just for the Global North to set limitations on the Global Souths' use of their forests?

⁴⁹ "Deforestation Has Slowed down but Still Remains a Concern, New UN Report Reveals."

⁵⁰ Why Do Forests Matter?" UNEP. https://www.unep.org/explore-topics/forests/why-do-forests-matter.

⁵¹ Why Do Forests Matter?" UNEP. https://www.unep.org/explore-topics/forests/why-do-forests-matter.

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