



Study Guide [United Nations Environment Programme]

“Deforestation and Environmental Pollution as Simulators of Global Boiling: Adaptation to Alternative Energy Sources and Transition to Waste Recycling at All Levels”

Tashkent International Model United Nations 2023

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Introduction

Dear Esteemed Delegates,

It is with great pleasure and anticipation that we extend a warm welcome to all aspiring participants of the Tashkent International Model United Nations (TIMUN) conference. We gather here today with a shared commitment to address one of the most critical global issues of our time: the environment, as encapsulated by the United Nations Environment Programme (UNEP).

The Tashkent International MUN (TIMUN) conference serves as a platform for young leaders from around the world to come together, engage in meaningful dialogue, and collectively seek innovative solutions to the pressing environmental challenges we face. As delegates, you will assume the roles of diplomats representing various nations, tasked with finding common ground, negotiating agreements, and developing policies that promote sustainable development and safeguard our planet's future.

The topic of UNEP provides a unique opportunity to delve into multifaceted environmental issues. Throughout this conference, you will have the chance to analyze the complex dynamics at play, propose strategies to mitigate environmental degradation, and advocate for policies that foster environmental stewardship on both local and global scales.

Moreover, the Tashkent International MUN conference fosters an atmosphere of cultural exchange, where delegates from diverse backgrounds come together to share insights, experiences, and visions for a sustainable future. It is through this collective effort that we can forge lasting connections, build networks of collaboration, and inspire one another to take concrete actions that contribute to the greater good.

We extend our warmest welcome to each and every one of you, and we wish you a rewarding and transformative experience at the conference.

Sincerely,

[Tashkent International MUN Organizing Committee](#)

History

The connection between factory farming pollution and deforestation

Forests provide a home to millions of diverse flora and fauna around the world. But the benefits of forests extend far beyond the wildlife who live there. They play a vital role in the world's carbon cycle by balancing greenhouse gas emissions, making the air in our atmosphere breathable, and protecting against climate change. The [United Nations Food and Agriculture Organization](#)¹ (FAO) estimates that humans—or, more specifically, the corporations and industries they manage—converted 420 million hectares of forested land for other uses since 1990.

Factory farms force thousands of animals to live together in extreme confinement. These facilities generate so much waste that they poison surrounding air, water and land, causing widespread health problems in nearby communities. And the negative impacts of factory farm pollution extend far beyond just the surrounding area. Animal waste emits greenhouse gases that accelerate climate change and pose an existential threat to communities around the world.

Forests defend against the threat of climate change by serving as a “carbon sink.” The trees absorb carbon dioxide, removing excess greenhouse gas from the atmosphere and turning it into the oxygen we breathe. The “greenhouse effect” occurs when too many greenhouse gases remain in the atmosphere, trapping heat from the sun and raising global atmospheric temperatures. Scientists attribute most human-driven climate change to the greenhouse effect. When humans cut down forests, more greenhouse gas emissions from industrial agriculture remain in the atmosphere, further contributing to the climate crisis.

Removing trees on a mass scale through deforestation takes away one of the most important buffers we have against climate change. If we put an end to deforestation, our annual greenhouse gas emissions would drop by 10%. This action could prove crucial in the fight against climate change, with climate scientists estimating we need to cut greenhouse gas emissions by at least 50% in the next decade to mitigate the crisis at hand.

A [2020 report from UNEP](#)² and the Food and Agriculture Organization found that, 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), and that another 100 million hectares are at risk.

[Humans can survive without factory farms](#), but we can't survive without healthy, breathable air. If deforestation and factory farming continues unabated, our planet, and our species, are headed for disaster.

¹ <https://thehumaneleague.org>

² <https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests>

Topic: Deforestation and Environmental Pollution as Stimulators of Global Boiling: Adaptation to Alternative Energy Sources and Transition to Waste Recycling at All Levels

Why Deforestation is a Serious Global Environmental Problem?

Deforestation can be a significant cause of global warming. Since trees absorb greenhouse gases like CO₂ from the air and turn it into oxygen, they are a natural greenhouse gas storage. However, if the forests are cut down in order to get more space for settlement or housing, large quantities of CO₂ are released into the atmosphere and the global warming process will be enhanced due to this. Forests, which cover over 30% of the world's surface³, are a crucial member in combating global warming. While forest loss is just one of the many triggers of climate change, it remains one of the most threatening.

What are Alternative Energies?

Alternative energies can be defined as power that can be generated without the use of fossil fuels. In our current global state of the world, the advancement of alternative energies is crucial in order to mitigate global warming and to save the human species from vast destructive events in the future. The energy demand on the planet is still covered mostly from fossil resources, but renewable energy projects such as large solar power plants and massive wind farms built both onshore and offshore are increasing their presence in many countries, which shows that the clean future is closer than we thought.

³ <https://earth.org/deforestation-global-warming/>

Causes

Deforestation and environmental pollution are two significant contributors to climate change, each with its own set of causes. Understanding these causes is crucial in addressing and mitigating the impacts of climate change. Let's explore them in more detail:

1. **Deforestation:**

- a. **Clearing of Forests:** The expansion of agriculture, urbanization, and infrastructure development often necessitates the clearing of forests. Trees act as carbon sinks, absorbing carbon dioxide (CO₂) from the atmosphere. When forests are cut down or burned, this stored carbon is released back into the atmosphere, contributing to the greenhouse effect and climate change.
- b. **Logging:** Unsustainable logging practices, particularly in tropical rainforests, lead to deforestation. The removal of trees disrupts ecosystems, reduces biodiversity, and diminishes the earth's capacity to absorb CO₂, exacerbating climate change.
- c. **Agriculture and Livestock:** Conversion of forests into agricultural land, particularly for livestock farming and monoculture crops like soy and palm oil, is a significant driver of deforestation. These activities release large amounts of CO₂ and other greenhouse gases into the atmosphere, intensifying the greenhouse effect and altering regional climates.

2. **Environmental Pollution:**

- a. **Greenhouse Gas Emissions:** The burning of fossil fuels, such as coal, oil, and natural gas, for energy and transportation is a major source of greenhouse gas emissions. These gases, including CO₂, methane (CH₄), and nitrous oxide (N₂O), trap heat in the atmosphere, contributing to global warming and climate change.
- b. **Industrial Activities:** Industrial processes, such as manufacturing, mining, and chemical production, release significant amounts of greenhouse gases and other pollutants into the air and water. These emissions contribute to the greenhouse effect and can have adverse effects on local and global climate patterns.
- c. **Defective Agricultural Practices:** Certain agricultural practices, such as the excessive use of synthetic fertilizers, improper manure management in livestock farming, and the burning of agricultural waste, release large amounts of greenhouse gases, including CH₄ and N₂O. These emissions contribute to climate change and environmental degradation.

Why Deforestation And Environment Pollution are a Major Problem In Terms of Its Effect on Global Warming?

Being one of the biggest environmental issues of the 21st century, countries are currently going out of their way to map out policies and seek collaborations to slow down the pace of global warming, after witnessing extreme droughts, heatwaves, and flooding events unfolding in every single corner across the globe.

The Intergovernmental Panel on Climate Change has warned⁴ that there could be catastrophic consequences if humanity allows global temperatures to warm by over 2°C (the ultimate limit set by the Paris Agreement).

Each year, 13 million hectares of forest disappear⁵, that is 4x the surface of Belgium or 10 football fields, every 15 minutes!

30% of the incoming radiation from the sun is scattered or reflected by clouds or by the Earth's surface (Bailey, 2002).⁶ Twenty percent is absorbed by oxygen, ozone, water vapor and droplets, and dust. Recently, humans have been adding more carbon dioxide and other gases to the atmosphere, and have been heating up the environment by their various activities at work, home and play. During photosynthesis, plants incorporate carbon dioxide and give off oxygen.

Today, the ozone problem is one of the Earth's most pervasive environmental concerns. During the past decade or so, scientists and public decision-makers have become increasingly interested in analyzing the processes that control atmospheric ozone. This is due to scientific warnings that human activities may have inadvertently and irreversibly depleted the ozone layer in the upper atmosphere.

⁴ <https://www.greenpeace.org.uk/challenges/climate-change/what-causes-climate-change/>

⁵ <https://green-hero.info/en/deforestation-and-global-warming/>

⁶ <https://premium-papers.com/global-warming-threats-pollution-and-activities-to-stop/>

What has the UNEP done?

Today, more than 100 world leaders have promised to end and reverse deforestation by 2030 at the [COP26 UN Climate Change Conference](#). The pledge, which includes almost \$19.2 billion of public and private funds, is a landmark move for nature.

“Deforestation and forest degradation continue to take place at alarming rates, which contributes significantly to the ongoing loss of biodiversity,” the report stated. It warned that the [Sustainable Development Goals](#)⁷ would not be met by 2030 unless dramatic changes occurred in the agroforestry, agribusiness and agriculture sectors.

[This critical issue has not gone unnoticed](#). 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.

One innovative initiative, [Reducing Emissions from Deforestation and Forest Degradation](#) (REDD), 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](#). The decade aims to prevent and reverse the degradation of ecosystems worldwide and is led by UNEP and the Food and Agriculture Organization.

“The growing enthusiasm for forests and trees is a good thing,” said [Tim Christophersen](#), Head of UNEP’s Nature for Climate branch. “Ecosystem restoration will be critical in turning the tide against climate change and achieving the Sustainable Development Goals. The first rule for ecosystem restoration is to stop the further destruction of forests, wetlands and other critical green infrastructure.”

UNEP is one of the three agencies constituting the UN-REDD Programme - the UN’s knowledge and advisory programme on forests and climate - and the largest international provider of REDD+ assistance. It has also championed the [Green Gigaton Challenge](#), an ambitious public-private partnership to catalyse funding to deliver 1 gigaton (1 billion metric tonnes) of [emissions reductions by 2025](#) and annually after that.

⁷ <https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests>

Solutions

Fighting against deforestation and environmental pollution requires a combination of policy measures, technological advancements, and individual actions. Here are some solutions that can help address these issues and mitigate climate change:

- **Forest Conservation and Reforestation:** Protecting existing forests and promoting reforestation efforts can help combat deforestation. Governments can implement policies to enforce stricter regulations on logging, promote sustainable forestry practices, and establish protected areas.
- **Sustainable Agriculture:** Encouraging sustainable agricultural practices can reduce deforestation and pollution. Implementing agroforestry techniques, promoting organic farming, and reducing the use of chemical fertilizers and pesticides can help preserve ecosystems, reduce soil degradation, and minimize water pollution.
- **Renewable Energy Transition:** Shifting from fossil fuels to renewable energy sources such as solar, wind, and hydropower can significantly reduce environmental pollution and combat climate change.
- **Improved Waste Management:** Effective waste management systems can help reduce pollution of land, water, and air. Implementing recycling programs, promoting composting, and encouraging responsible waste disposal can minimize the release of greenhouse gases and harmful pollutants into the environment.
- **Education and Awareness:** Increasing public awareness about the importance of environmental protection and its connection to climate change is essential. Educational campaigns, community outreach programs, and environmental awareness initiatives can encourage individuals to adopt sustainable practices, make informed choices, and actively participate in conservation efforts.

It is important to note that these solutions should be implemented holistically, considering the specific contexts and challenges of each region. Collaboration between governments, industries, communities, and individuals is vital to effectively combat deforestation, environmental pollution, and climate change.

Conclusion

In conclusion, the study guide highlights the critical role of deforestation and environmental pollution as stimulators of global boiling, referring to the escalating climate crisis at all levels. This highlights the significance of waste management practices in curbing environmental pollution. It emphasizes the importance of waste recycling, composting, and responsible waste disposal to minimize the release of harmful pollutants into the environment. Implementing efficient waste management systems can significantly reduce greenhouse gas emissions and prevent further degradation of ecosystems.

Finally, the guide emphasizes the need for international cooperation and collaborative efforts among governments, industries, communities, and individuals. Only through collective action can we effectively address deforestation, environmental pollution, and climate change on a global scale.

By embracing alternative energy sources, implementing sustainable waste management practices, and fostering a shared commitment to conservation, we can mitigate the adverse effects of deforestation and environmental pollution, and pave the way towards a more sustainable and resilient future for generations to come.

Links to Research:

- <https://thehumaneleague.org>
- <https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests>
- <https://earth.org/deforestation-global-warming/>
- <https://www.greenpeace.org.uk/challenges/climate-change/what-causes-climate-change/>
- <https://green-hero.info/en/deforestation-and-global-warming/>
- <https://premium-papers.com/global-warming-threats-pollution-and-activities-to-stop/>
- <https://www.unep.org/news-and-stories/story/inside-global-effort-save-worlds-forests>