
UNEP
UN Environment Programme
High School General Assembly

Background Guide

Virginia Invitational

VIMNC

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VIMUNC XI

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Esteemed delegates and sponsors of VIMUNC XI,

Welcome to the eleventh annual Virginia Invitational Model United Nations Conference. As the MUN year winds down, we hope to provide the best experience yet, with paramount service and attention to detail that creates the greatest conference. From broad UN organizations to regional bodies, from corporations to criminal organizations, VIMUNC has committees that truly serve every interest. With experienced chairs, czars, and staff, we will ensure that every delegate truly has a positive experience, and we hope that you can enjoy your experience with us.

VIMUNC's 21 committees and over 850 delegates make this year's conference one of the largest editions ever, and we look forward to expanding our outreach across the DMV region to continue to provide a wonderful experience for all delegates. With a large MUN team that has years of experience, we hope that every single minute of the committee is filled with substantive debate that will create learning experiences that last for years to come.

So much hard work has been put into every single crisis update, background guide, and dossier, and we sincerely hope that the work and care placed in each aspect of this conference is displayed in its quality. If at any time you feel something about the conference is unsatisfactory, please don't hesitate to talk to your chairs, a staffer, or a member of the Secretariat.

Thank you so much for your commitment to VIMUNC XI, and best of luck in your committee, future conferences, and ambitions.

Sincerely,
Mei Torrey
Secretary-General, VIMUNC XI

UNEP

(UN Environment Programme)

TOPIC A: *Combating Deforestation*

TOPIC B: *Minimizing the Adverse Effects of Pollution on the Environment*

Committee Introduction

The United Nations Environment Programme (UNEP) was founded in 1972 after the United Nations Conference on the Human Environment was convened. Its purpose was to address environmental concerns in all nations, including nations in priority, and produce guidelines or manuals on the environment. UNEP's mission is to inspire, inform, and enable nations and peoples to improve their quality of life without compromising that of future generations. UNEP is led by a Senior Management team chaired by its Executive Director and is headquartered in Nairobi, Kenya. UNEP is driving transformational change by drilling down on the root causes of the triple planetary crisis of climate change, nature and biodiversity loss, and pollution.

UNEP deals with addressing various pressing environmental challenges—from restoring the ozone layer to protecting the seas and promoting a green, inclusive economy. UNEP has also

provided evidence-based data to inform policy decisions, collaborated with sectors for low-carbon transitions, supplied climate finance mechanisms, and aided countries in adaptation and mitigation efforts. UNEP's contributions towards the Paris Agreement, promoting the achievement of the 17 SDGs, and many other actions can be recognized. The information that UNEP shares is based on the latest science, and is responsible for allowing policymakers and stakeholders to access reliable information effectively. The official website of the UNEP also provides valuable and up-to-date information on its past and current actions promoting environmental changes and solving climatal obstacles.

TOPIC A: Combating Deforestation

Introduction

In recent years, deforestation has become a massive problem around the world, cementing itself as a forefront issue with UNEP. Deforestation has harmed communities of animals and humans over the past years and has created sizable environmental and economic obstacles. Currently, 30% of the land on earth is covered in forests, but this number is greatly threatened if deforestation continues to take place at such a rapid rate. The mass clearing of trees in forests is due to a multitude of reasons, the biggest being the expansion of farming and agricultural land. The solutions to these environmental setbacks, however, are not so simple to reach. Trees are valuable in numerous ways, not only are they useful for natural resources, they are vital to ecosystems and life on this planet.

The extensive destruction of forests has resulted in worsened climate change, flooding, and a sharp increase in greenhouse gases. If the current rate of deforestation continues, the average global temperature will likely rise by at least 1.5 degrees Celsius from what it was before the Industrial Revolution.

Trees and forests provide habitats for numerous species, and the continuation of rapid deforestation will lead to a significant decrease in biodiversity. The number of trees cut over the years has been consistently high, with around 12 million hectares of trees being removed each year. Half of this destruction occurs under the supervision of large corporations that use deforestation to cut costs and increase monetary profit. While companies benefit from

deforestation, other individuals, local businesses, communities, and wildlife suffer immensely exacerbating existing climate issues.

Current Situation

Deforestation of the environment has already had numerous detrimental effects. The destruction of biodiversity has become one of the most dire impacts of deforestation. Eighty percent of terrestrial animals reside in forests and use tropical, temperate, or boreal forests as their homes. While one may assume that the destruction of these homes bears little impact on humans, humans depend on animals for resources and for population control of other species. While deforestation may seem insubstantial to humans, disrupting forests can affect the entire ecosystem, bringing imbalance to the environment. Deforestation not only impacts the homes of animals but also the living conditions and health of humans, as forests provide crucial shelter and resources, those of which 1.6 billion people rely on for survival. Unfortunately, local communities often lack the power to voice their concerns about deforestation, especially in developing countries where they can be taken advantage of and exploited for their resources.

Soil erosion is another major issue associated with deforestation, as it is a natural process that is accelerated to unhealthy levels due to the removal of trees. Trees prevent runoff and slow down erosion by holding down soil, and their absence leads to less water being absorbed by the soil, increasing the risk of flooding. Soil erosion is not only dangerous to habitats, it can harm farming by reducing the number and quality of crops. In severe cases, soil erosion can decrease the number of crops by up to 50% or more, affecting small farming businesses, local

communities, and animals that rely on these resources for survival. With this in mind, it is crucial to prioritize sustainable means of production and for the UNEP to focus on mitigating deforestation's negative impacts feasibly.

Possible Solutions

Policies may be improved and the negative consequences of deforestation can be limited by giving agencies like the WWF and UNEP more executive authority. These groups can advocate for significant causes like land protection and encourage ethical farming. They hold far more power than individuals, therefore supporting them is essential to reducing and even reversing the harm caused by deforestation.

Spreading awareness is vital to not only the harmful effects of deforestation but also the economic benefits and importance of forests. Whether through schools or media, educating individuals about deforestation will encourage them to actively push for more environmental protective legislation. Consumers must understand that a lack of care for forests will hinder the production of essential products and that the focus should not be held on maximizing profits, but rather on protecting these crucial ecosystems. Spreading awareness to the general public will make consumers more inclined to purchase from companies with sustainable production which will, in turn, encourage other companies in the industry to focus on preservation as well. Public support will be the pathway through which change can happen.

Questions to Consider

1. What measures can be taken to limit and potentially reverse the damages done by deforestation?
2. What incentives can the United Nations establish in order to discourage deforestation and encourage member states to strive to meet reforestation goals?
3. What sustainable solutions can be implemented in both developed and underdeveloped nations by the United Nations to address the crisis at hand in the most efficient way possible?

TOPIC B: Minimizing the Adverse Effects of Pollution on the Environment

Introduction

For decades, pollution has plagued the earth, causing detrimental damage to the health of people and animals. Nine out of ten people now breathe polluted air, which kills 7 million people every year, according to the World Health Organization. With the various effects of pollution, the United Nations Environment Programme has made much progress in raising awareness and initiating incentives to minimize the effects of pollution.

UNEP developed an "Implementation Plan "Toward a Pollution-Free Planet". The committee has also adopted a resolution on Environment and Health. This called for collaborative action on integrated environment and health methodologies, tools, and policies, and on specific nexus areas such as chemicals and waste, climate, biodiversity, antimicrobial resistance, and sustainable consumption and production. Additionally, in the Clean Seas campaign, the UN established a campaign against microplastics, and the Billion Tree campaign established in 2008 encourages people, communities, businesses, civil society organizations, and governments to enter tree planting pledges online. This was done with the objective of planting at least one billion trees worldwide each year.

While the United Nations has already made substantial progress in addressing pollution and minimizing adverse environmental impacts through many agreements such as the UN Framework Convention on Climate Change and the Paris Agreement, the UN faces ongoing

challenges due to the lack of binding enforcement mechanisms in many of its agreements. Major emitters are often reluctant to comply with voluntary targets. Developing nations in particular face funding and capacity issues in implementing environmental agreements. Furthermore, the complex coordination across the multitude of UN agencies, conventions, and initiatives can lead to fragmentation and inefficiency. There is overlap between different UN programs, along with a lack of centralized authority on environmental issues. This makes it difficult to streamline efforts. Meanwhile, pollution levels are increasing from emerging sources which require new solutions.

Current Situation

Among the adverse types of pollution, air pollution has proven to be extremely deadly. The root of this problem is due to the burning of fossil fuels from industry sources and power plants, motor vehicles, etc. In 2020, it was reported that about 68 million tons of air pollution were emitted into the atmosphere in the US. Air pollution is caused by pollutants that include particulate matter, carbon monoxide, ozone, nitrogen dioxide, and sulfur dioxide.

While air pollution is caused by diverse sources, there are many harmful effects of related particles. Particularly, acid rain has proven to be harmful and is caused by air pollution. The pH value of normal rain is between 5.0 and 5.5, however, the pH value of acid rain is between 4.2 and 4.4. This threatens wildlife, particularly aquatic life as most aquatic animals function at the optimal pH value between 6.5 and 8.5. Acid rain also has a negative impact on soil—if the soil becomes acidic, aluminum in the soil becomes soluble and begins to degrade the health of plant

roots. Additionally, acid rain also causes the gradual appearance of cracks and splits in concrete. For example, The World Bank estimated that the annual economic loss caused by acid rain in China is about $5 billion US dollars, among which economic loss of building materials is more than 50%. Acid rain has proven to cause economic loss in countries, and its effects are anticipated to become increasingly severe.

Apart from acid rain, air pollution has caused the deaths of many. Air pollution contributes to the death of 5 million people every year and about 6% of the global population. In 2017, close to 15% of population deaths in low-income countries, namely in South and East Asia, were attributed to air pollution. Air pollution could also cause terminal health issues such as heart disease, stroke, lung cancer, and lower respiratory infections.

The effects of microplastics have also proven to be a root cause of pollution in the environment. The breakdown of macroplastics, usually disposed of in the environment, is caused by weathering induced by hydrolysis and biodegradation, which can lead to the fragmentation of microplastics. Microplastics can be up to five millimeters in diameter, and enter the ocean from marine plastic litter breaking down, run-off from plumbing, and leakage from production facilities and other sources, due to its miniscule size. When ingested by marine life such as birds, fish, mammals, and plants, microplastics have both toxic and mechanical effects, leading to issues including reduced food intake, suffocation, behavioral changes, and genetic alteration. With the various effects of pollution, the United Nations Environment Programme has made much progress in raising awareness and initiating incentives to minimize these effects of pollution.

Currently, UNEP is addressing climate change by providing research to support science-based decision-making and working across sectors to support climate resilience. It empowers communities to adapt and develops financing mechanisms for countries to mitigate and adapt to climate change. UNEP promotes nature-based solutions, National Adaptation Plans, early warning climate services, and climate-resilient livelihood training. It has assisted over 75 climate change projects aiming to benefit around 2.7 million people through measures like restoring land and building water harvesting structures.

Possible Solutions

A possible plan of action to address this ongoing crisis which has been discussed within UNEP is to implement stronger enforcement mechanisms to impel member states to strive to meet set targets and commitments. This could involve instituting sanctions and penalties to respond to noncompliance from member states. Additionally, the UN needs breakthrough agreements that can gain consensus among even the most reluctant major emitters through incentives, multilateral agreements, and overall member-state cooperation.

The committee could also seek cooperation within the multiple agencies and committees working to battle environmental issues. The consolidation of the many operations would make sure to address the crisis at hand in the most effective manner. This cohesive body could then harness emerging sustainable technologies such as AI modeling, data tracking, and satellite monitoring in order to enhance real-time tracking of harmful environmental factors such as pollution and wildfires. These, however, would each come with their own possible implications

which UNEP would have to address and ensure they do not snowball out of their control. Furthermore, a coordinated global reforestation initiative engaging community, corporate, and government stakeholders can accelerate the UN's efforts in striving for carbon emission reductions. Sustainable subsidization solutions such as debt-for-climate swaps would help fund innovative solutions to address mitigating the harmful effects of pollution plaguing the environment.

Questions to Consider

1. How can the United Nations address the diverse amounts of harmful gasses and their adverse effects such as acid rain which stem from a variety of sources in an innovative way?
2. What robust actions that differ from those already in place can the United Nations take to tackle already existing effects from pollutants such as microplastics?
3. What policies can the United Nations put into place as preventative measures to avoid further harm to the environment?

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