



NOVICE 43

HUNTINGTON BEACH HIGH SCHOOL



Economic and Social Council

Rebuilding Infrastructure in Countries
Impacted by Environmental Degradation

Moé Caruso

Rachel Wood

Julia McWilliams

Welcome Letter

Dear Delegates,

On behalf of the Huntington Beach High School Model United Nations Program, we would like to welcome you to our Novice 43 conference!

Our annual Novice conference upholds the principles and intended purpose of the United Nations. Delegates can expect to partake in a professional, well-run debate that simulates the very issues that those at the United Nations discuss every day. Both novel and traditional ideas will be shared, challenged, and improved.

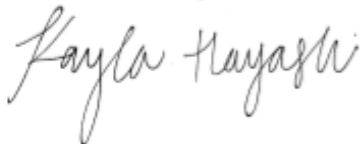
It is our hope that all delegates will receive the opportunity to enhance their research, public speaking, and communication skills as they explore the intricacies of global concerns through various perspectives, some of which may be very different from their own. We hope their experiences here give them new insight and values that they can apply outside of the realm of Model UN for the betterment of the world community.

Although we will be entertaining a new style of a virtual conference, we hope all delegates will experience a fruitful and enhancing debate. Please do not hesitate to approach our Secretariat or Staff Members with any questions or concerns that you may have throughout the day. We wish the best to all our participants and hope that they may share a fulfilling experience with us! Enjoy the conference.

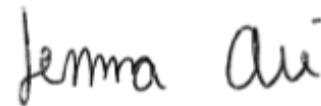
Sincerely,



Summer Balentine
Secretary-General



Kayla Hayashi
Secretary-General



Jenna Ali
Secretary-General



Hailey Holcomb
Secretary-General

Meet the Dias

Moé Caruso

Hey delegates! My name is Moé and I am currently a junior at HBHS. I have been a part of MUN for three years, and my involvement has made me more well-rounded, as it has allowed me to overcome my fear of public speaking and also become more aware of issues that are occurring globally. Outside of MUN, I am on the swim team and am a part of many clubs at school, such as Humanitarian Helpers, Doctors of Tomorrow, and National Honors Society. In my free time, I love to read, watch movies, listen to music, and try out new dessert recipes! I cannot wait to meet you all on Zoom, and I wish you the best of luck!

Rachel Wood

Hey guys! My name is Rachel and I am so excited to meet you all at Novice 43! I am a junior at HBHS and am currently in my third year of MUN. Participating in this amazing program has allowed me to expand my perspective on the world around me. Additionally it has helped me to become a confident public speaker. Apart from MUN, I swim on the varsity team here at HBHS and am a member of a few clubs, such as the National Honors Society and the Rotary Club. When I am not on campus, I usually spend a lot of time at the beach and recently finished my rookie summer as a Huntington Beach City Ocean Lifeguard. Good luck and see you all virtually April 24th!

Julia McWilliams

Hi everyone! My name is Julia and I'm so excited to be chairing Novice 43 this year. As a junior, this is my third year in MUN this program has been so beneficial to me in teaching me the complexity of the world outside just the community I see on a daily basis. Besides MUN, I am on our school's swim team and volunteer through National Honor Society, Make-A-Wish, and Link Crew. While procrastinating my homework, you can usually find me taking absurdly long naps and hanging out with my dog. I can't wait to see the amazing research and creative solutions you guys bring to this committee. Good luck and have fun!

All Papers are due on April 18th, 2021 by 11:59pm to
ecosochbnovice@gmail.com

Rebuilding Infrastructure in Countries Impacted by Environmental Degradation

BACKGROUND

Environmental degradation is the decay of the natural environment leading to a lack of biodiversity, the destruction of ecosystems, or a depletion of valuable natural resources¹. Essentially, environmental degradation can be caused by any disruption to the environment that indicates a negative change². For instance, degradation can occur if a natural resource becomes depleted, or if pollution makes vital parts of the ecosystem ineffective. In most cases, it stems from climate change and human intervention with the natural world. Climate change is the direct effect of a surplus of greenhouse gas emissions from unsustainable use of fossil fuels, deforestation, and the overuse of land. All of these issues can cause an increased gas production rate which the environment is not able to combat quick enough. This leads to unnatural stores of emissions that can cause destruction to natural life³. Human intervention with the natural world through specific factors such as population and economic growth, urbanization, growth in the agricultural sector, increased energy consumption, and an increase in transportation services can contribute to climate change and therefore can cause environmental degradation⁴.

The three main types of degradation are classified as land (soil), water, and air. Land degradation specifically caused by practices such as deforestation or depletion of soil nutrients results in decreased food security⁵. Water degradation occurs mostly due to pollution from the farming industry as well as from sewage, and is extremely detrimental as it leads to contamination of the food chain in both fresh and saltwater, and depletes drinking water⁶. Finally, air degradation is the result of motor vehicles and coal-fueled power plants; which leads to a decline in air quality⁷. In addition to the short term effects of environmental degradation caused by each specific type, the long term results from all types pose a great risk to humans, as well as the natural world. In 2004, environmental degradation was officially selected as one of the ten threats cautioned by the High-level Panel on Threats, Challenges and Change of the United Nations, highlighting the importance of mitigating this issue⁸. Long term and concerning effects include land that cannot retain water or grow food, water that is undrinkable, and air littered with pollutants causing disease such as pneumonia or asthma⁹. When a community becomes heavily impacted by this issue, they can also become economically affected due to unfarmable land or a decline in local tourism. The impacts of land degradation can also have a significant impact on the economy, as production rates decrease and the degraded pastures cause farmers to pay for additional expenditures to restore the land¹⁰. For instance, in Southern Asia, it is estimated that the annual economic loss caused by land degradation is 600 million, but this could be an underestimation, as the amount of money that farmers must also contribute is often not factored in¹¹. Once a region is overtaken by the negative effects of degradation, the local population is subject to forced migration in order to survive, creating a considerable amount of displaced environmental refugees. In 2019, it was reported that 5.1 million people were classified as displaced persons due to environmental causes (including natural disasters), this number has increased by 3.6% in 2020¹². Considering that 75% of the world has been classified as degraded the number of climate refugees will continue to grow unless effective mitigation occurs¹³. The

areas most affected by environmental degradation include pacific-asian nations as well as many inland countries in Africa. These areas are the most affected, not only because they contain tropical forest and temperate biomes respectively, but they additionally have a lack of infrastructure and heavily rely on locally produced goods rather than supplies that are imported¹⁴. Even in areas with more infrastructure and larger populations, environmental degradation can be detrimental. Many large cities across the globe face air degradation, this can lead to citizens becoming extremely sick and especially affects young children being raised in these types of environments¹⁵.

With infrastructure increasing in cities and villages across the world, many challenges have risen due to environmental degradation. Environmentally friendly construction can take a much longer time and can cost more money than traditional practices, creating a hurdle for developing nations trying to grow while not worsening their situations¹⁶. Additionally, once land is deemed unusable after degradation occurs, rehabilitation processes can take years and are generally not cost effective. Rehabilitation for solid, air, and water qualities is still a very new technology and requires a trial and error method based on the biome the degradation occurs in, using up valuable time many communities do not have¹⁷.

Government also has a large role to play in decreasing environmental degradation and repairing the long term effects of it. Private corporations will not alter their business practices that cause degradation, as their main focus at all times is how to gain the most amount of profit. In recent years, pressure from a concerned public has been put on large international corporations to change their ways, however, this has been ineffective. An example of this can be seen in the investment management company BlackRock, who is publicly committed to sustainable business practices, yet still holds funds in companies linked to over 500 hectares of deforestation in developing nations¹⁸. Government legislation is an effective way to pressure corporations to no longer use business practices linked to environmental degradation. Furthermore, government policies affect nations' stances on incorporating newly developed, sustainable practices. With modern technology introducing the capability of nuclear weapons, countries engaging in warfare are contributing to the scarcity of natural capital, such as oil, along with disrupting critical human infrastructure including food production areas, electricity grids, sewage treatment plants, and water systems¹⁹. For instance, Iraq dumped crude oil in the Red Sea during the Gulf War, which lit Kuwaiti oil fields on fire and harmed marine life²⁰. Additionally, despite the motivations of sustainable development, nations encounter the unique challenge of varied weather patterns and geography compared to not only other countries, but also internally amongst provinces and states²¹. Here, governments face difficulty in applying sustainable measures with scalability, though one method increasing in popularity is the application of indigenous people's traditional ecological knowledge to combat climate change in the agriculture sector. However, this also presents its own problems of communication barriers, and governments neglecting to recognize the country's indigenous culture and their land.

The COVID-19 virus has not been beneficial to communities facing environmental degradation. Since the start of the pandemic in early 2020, water degradation has grown significantly. Personal Protective Equipment (PPE) like masks, gloves, or face shields are made up of single use plastic which creates about 60% of water pollution²². Mask mandates across the globe have led to improper disposal of PPE creating an increase in water degradation²³. However, air quality has improved throughout the pandemic, and internationally at the start of 2020 lower

and lower emission rates were reported. This mainly occurred due to the lack of people travelling or commuting every day. An example of this can be found in New Zealand, when the entire country was completely locked down traffic fell by 80% and fossil fuel emissions fell proportionally²⁴. The broadening effects of land degradation demonstrate how this issue must be addressed in order to better decrease its economic impact, and better people's livelihoods, as restoration occurs globally.

UNITED NATIONS ACTION

The leader in combating environmental degradation is the UN Framework Convention on Climate Change (UNFCCC). Hosting the annual Conference of Parties, the UNFCCC has adopted two historically monumental international treaties to combat the impacts of climate change, the Kyoto Protocol and Paris Agreement. The 1997 Kyoto Protocol was established as the first of its kind to acknowledge the need to stabilize the emissions of greenhouse gases, working with parties individually through the Clean Development Mechanism for developing nations and Annex I for developed countries. Between 1990 and 2012, the Kyoto Protocol was successful in contributing to the 12.5% reduction of carbon emissions, surpassing the intended 4.7%²⁵. The 2015 Paris Agreement was created with the aim to decrease the global temperature increase in this century from 2°C to 1.5°C, along with providing financial assistance in the transition to sustainable practices to impoverished countries. Submitting nationally determined contributions (NDCs)²⁶ every five years, 2020 NDCs portray the Paris Agreement as ineffective, since countries' total emissions are predicted to decrease by only 1% by 2030, though they need to decrease by 45% to meet the projected goal²⁷. Also, in 2015, the establishment of the SDGs²⁸ has led to a new burst of motivation and acknowledgement of environmental sustainability through goal 6 of clean water and sanitation, goal nine of industry, innovation, and infrastructure, along with goal eleven of sustainable cities and communities. These three all interlink with the core issue of environmental degradation with a rebuilt infrastructure as an end goal.

In this, the international community has only recently recognized the role environmental degradation plays in communities. In the 1951 Refugee Convention, environmental disasters were neglected as a driver of displacement to ensure refugees escaping conflicts were prioritized²⁹. Eventually, in the General Assembly's (GA) 2016 "New York Declaration for Refugees and Migrants,"³⁰ natural disasters, climate change, and environmental factors were officially coined as a cause of migration, in which the Global Compact on Refugees in 2018 was later established in A/73/12³¹ to directly address this growing concern. In Timor-Leste, following their 2002 independence, the GA adopted A/58/L.46³², which promoted efforts at building public institutions, including schools for rehabilitation and hospitals for combating prevalent viruses including HIV/AIDS, malaria, and tuberculosis contracted through illegal lodging, forest fires, air pollution, and flooding³³ from Indonesia's occupation. In 2009, the GA implemented A/C.2/64/L.21/Rev.1³⁴, promoting integration of new agricultural technologies to combat future impacts of climate change, encompassing irrigation systems and water accessibility.

In response to this evolving crisis, other UN organizations contribute to humanitarian aid. With involvement in over 43 environmental disasters³⁵ worldwide, the UN High Commissioner for Refugees established the Platform on Disaster Displacement³⁶ to implement the Nansen Initiative's Protection Agenda. To better protect those in danger of displacement, this program

aims to provide urban planning, land reform, and infrastructure improvement to build resilience and reduce initial vulnerability. Additionally, the UN Relief and Works Agency for Palestine Refugees in the Near East³⁷ (UNRWA) works for the rehabilitation of and prevention of deteriorating environments of camps for Palestine refugees with their 2007 Infrastructure and Camp Improvement Program. Housing over a third of the five million registered Palestine refugees in the agency's 58 refugee camps throughout the Gaza Strip, Jordan, Lebanon, Syria, and West Bank, the UNRWA has rebuilt 5,223 houses in Nahr el Bared and an additional 2,778 in the Gaza Strip. Furthermore, with the beginning of 2021, the UN-Habitat³⁸ initiated the three year program "Urban Planning and Infrastructure in Migration Contexts" in collaboration with the Swiss State Secretariat for Economic Affairs. Budgeting at USD \$3.65 million, this program will improve accessibility to socio-economic opportunities and reliable services for displaced populations in urban municipalities of Cameroon, Egypt, Jordan, and Myanmar.

Besides housing, the UN focuses on the establishment of public institutions, including schools, through the ngo Reach Out to Asia³⁹ (ROTA). Recognized as a special consultant with ECOSOC, ROTA builds nearly 100 flood-resistant schools annually to provide access to safe and secure education for 30,000 students. Also, in response to COVID-19, the healthcare sector is supported by ngo Build Health International⁴⁰ (BHI), who promotes that infrastructure is the key to combating the virus through generating 1.4 million kWh of solar energy annually to power their USD \$1.2 million of medical equipment and providing 2,239 beds within their facilities. BHI has launched numerous individual projects, including the distribution of their rapidly deployable Oxbox⁴¹ in collaboration with the World Health Organization, which delivers the necessary, currently exacerbated oxygen that combats the barriers of unreliable electricity and cost in impoverished countries.

CASE STUDY: Kenya

Globally, 80 countries are affected by land degradation, with 36 located in Africa⁴². While land degradation's impact on a region may vary, it still poses a serious risk to many countries' development and the livelihood of millions of people who are dependent on the goods produced in certain regions. These adverse effects can be seen in Kenya, where they have been working to tackle land degradation, as it affects nearly 12 million people in their country. Moreover, 30 percent of Kenya's land mass struggles with land degradation⁴³. Within Kenya, a majority of their land degradation can be linked to unsustainable farming practices, climate change, soil erosion, pollution from agro-chemicals, and soil nutrient depletion⁴⁴. This land degradation has constrained Kenya's ability to broaden their agricultural production. The decrease in agricultural production has caused food prices to escalate, which can contribute to the rising poverty level. In addition to this, the decrease in natural resources has affected the wildlife and livestock, decreasing tourism in some regions as well⁴⁵. For example, from 1970 to 1990, nearly all 17 rangelands in Kenya lost fifty percent of their wildlife⁴⁶. As an agricultural nation, the effects of land degradation have not only taken a toll on their environment, but their economy as well. For instance, from 1981 to 2003, there was a forty percent decrease in cropland productivity, which is highly problematic considering their population size doubled within the same time period. In a study conducted by Wawsa, they found that over fifty-five percent of the farms in western Kenya lacked soil and water conservation measures, decreasing the total profits that farmers earned and the natural fertility of a region, without a reliance on

pesticides and fertilizers⁴⁷. In addition, in 2010, the International Monetary Fund (IMF) estimated that the effects of land degradation cost Kenya nearly 390 million dollars, or 3% of their GDP annually. To combat this issue, Kenya has put in place a comprehensive Sustainable Land Management (SLM) policy that has provided guidelines on land management and administration, establishing greater coordination regarding this topic throughout the country. To further fortify this, Kenya has also put in place the National Land Policy (NLP), ensuring that all land policy is unified, creating an efficient system where they can ultimately reach the most success. In addition to the impact land degradation has already placed on Kenya's economy, it is estimated that Kenya will spend about 18 billion dollars to solve land degradation over 30 years. Although this is extremely costly, Kenya could lose nearly 75 billion dollars during the same time period if they do not take any action, showing other nations that although the road to recovery can be costly and difficult, they must ultimately work to resolve the issue to prevent further repercussions⁴⁸.

QUESTIONS

1. Recognizing that environmental degradation can be extremely costly, in what ways can this affect on a country's economy be reduced?
2. Has your country been affected by land degradation? If so, what measures have you implemented or to help promote rebuilding, rehabilitation, or building new institutions?
3. Does your country support or participate in the repatriation of environmental refugees?
4. To what extent can countries be better prepared for the aftermath of natural disasters and climate change to begin with?
5. How can the international community's recognition of land degradation be expanded?
6. By what means can infrastructure programs be implemented with scalability?
7. How can governments be incentivized to adopt sustainable energy and agriculture methods?
8. What role does COVID-19 play into the exacerbation of the ability to make immediate solutions accessible?

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