MODEL UNITED NATIONS

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BACKGROUND GUIDE

Chair: Lylah Patel
Moderator: Olivia Cooney

Natural Disaster Displacement

Dalton Model United Nations XI

United Nations Environment Programme

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108 E 89th St
New York, NY 10128
dmunconference@gmail.com

Letter from the Chair

Hello Delegates!
Welcome to the United Nations Environment Programme at DMUN 2025! My name is Lylah Patel, and I am excited to be chairing this committee alongside our moderator Olivia Cooney.

The topic for this committee focuses on one of the most pressing issues relating to displacement, climate change, and quality of life—natural disasters. Representing a plethora of different policies and ideologies, delegates will work collaboratively to better understand the complex issue of natural disaster displacement as well as how the underlying push factors and exacerbating issues can be combatted. Using innovative new technologies in tandem with evaluations of existing action and government policy, you will develop new solutions to protect against the looming threat of natural disasters worldwide.

I am currently a junior at Dalton and have been practicing classical Indian dance for 11 years. I have been doing Model UN since my freshman year and am interested in foreign relations and politics. Academic interests aside, I love baking, watching Netflix (if you have recommendations let me know!), and spending time with friends and family.

Our lovely moderator, Olivia, is just as passionate about this topic as I am. Her excitement will surely amplify the committee's atmosphere, and she cannot wait to hear all of your unique ideas. She has poured her heart and soul into wildlife research and is committed to saving the turtles amid climate change.

If you have any questions, feel free to reach out at c26lp@dalton.org. I look forward to committee and wish you all the best of luck preparing!

Sincerely,
Lylah Patel

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History of the Committee

The United Nations Environment Programme (UNEP) was established in 1972 after the UN Conference on the Human Environment. A subsidiary of the UN General Assembly, UNEP's goal is to promote environmental action in three main categories: climate change, nature and biodiversity loss, and pollution and waste. Following the program's inception, UNEP established its headquarters in Nairobi, Kenya, in 1973. That same year, UNEP facilitated many foundational environmental protection projects, including MARPOL, a treaty seeking to prevent spills and pollution in the shipping industry; CITES, a convention for the conservation of endangered species; and the Environment Fund, a member-state-contribution-based fund that is still the primary financing mechanism for UNEP's initiatives (UNEP). Since then, UNEP has taken important steps toward conservation by way of the Regional Seas Programme (1974), which protects marine life in 13 sea regions with 143 participating countries; the Montreal Protocol (1987), which achieved universal ratification and remains the landmark agreement regulating man-made chemicals referred to as "ozone-depleting substances;" the International Environmental Education Programme (1975-1995) to mobilize global environmental awareness; and the Paris Climate Agreement (2015) with 195 adopting a legally binding global climate deal to limit global warming to below 2°C (UNEP). Importantly, UNEP is instrumental in helping create and support the UN's Sustainable Development Goals (SDGs), a series of non-binding targets for global prosperity including ending poverty and hunger, improving global healthcare and equality, and supporting clean energy, climate action, and responsible consumption (United Nations). Ultimately, UNEP has been a leading force in international collaboration and action regarding the environment for the last 50 years.

Natural Disasters

Last year, over 16,000 lives were lost to natural disasters (Ferris). Events such as earthquakes, tsunamis, floods, storms, and wildfires have had widespread impacts on communities across the globe. In the immediate aftermath of a natural disaster, homes, businesses, and public infrastructure undergo severe damage and destruction. Civilians can sustain widespread physical injuries, often overloading local health systems and requiring temporary treatment facilities. Natural disasters also put those with chronic diseases at high risk, as power outages and infrastructure damage can interrupt treatment for patients with diabetes, kidney disease, lung disease, or other chronic conditions requiring constant care. The spread of disease is also heightened following a disaster, further worsening global health (Walden University). In October 2010, for example, just months after a devastating magnitude 7.0 earthquake which claimed over 300,000 lives and damaged nearly half of all infrastructure at its epicenter, Haiti suffered an outbreak of Cholera, a waterborne bacterial disease, which was likely exacerbated by the damaged sanitation system (Cravioto et al.). Another vital problem posed by disasters is food shortages; while a single disaster might only interrupt food access in the affected area, damage to farms and factories could result in long-term food shortages and increased food insecurity (Walden University). As properties are lost and production is disrupted, natural disasters have been shown to have negative economic consequences. Importantly, for developing nations with growing populations and less resilient infrastructure, their economies are often disproportionately affected by natural disasters (Botzen et al.). Overall, natural disasters have severe short and long-term impacts on affected regions. The best delegates will ponder and effectively address infrastructural damages, potential disease outbreaks, food and water shortages, and economic losses resulting from natural disasters, paying particular attention to these factors' potential to act as an impetus for large-scale displacement.

Climate Change & Disasters

Over 90% of natural disasters are weather-related and can thus be impacted by climate change (UNEP, "Disasters and Climate Change"). As carbon emissions increase, the global water cycle has


c/o AFP Photo

been severely disrupted. Studies show high confidence that increases in precipitation are caused by higher air temperatures ("Water Cycle Changes"). This is because hotter, less dense air can hold more moisture than cool air (NASA). In addition, higher temperatures lead to more evaporation, meaning that more water vapor enters the atmosphere, and drier areas suffer from increased droughts and worsened soil resilience (NYC Environmental Protection). With more moisture in the air, certain natural disasters, like thunderstorms and hurricanes, are heavily exacerbated. In addition, global warming has begun to melt the polar ice caps, leading to sea-level rise, and a subsequent increase in tidal flooding, erosion, and extreme storms (Craig). In the last 30 years, the number of climate-related disasters has tripled, largely as a result of global warming (Oxfam International). These disasters are often categorized as either sudden-onset or slow-onset. Sudden-onset disasters, including flash floods, severe storms, earthquakes, hurricanes, and wildfires, can cause short-term displacement. In these examples, people are displaced temporarily but can return after the event (i.e., a storm ends or a flood recedes) (Global Refuge). Unfortunately, certain areas are threatened by sudden-onset disasters more frequently, forcing prolonged displacement. Landlocked countries, for example, suffer from both droughts, due to increased temperatures, and floods, with dry soil, prone to flash floods (UN). Intensifying the effects of these disasters, many vulnerable regions are home to developing countries, which often lack the infrastructure and preparedness to respond effectively (Conservation.org). Slow-onset disasters, such as desertification, rising sea levels, air pollution, and changing weather patterns, may cause permanent damage. Those displaced by slow-onset disasters are often fleeing uninhabitable environments that may not improve, and are thus displaced indefinitely (Global Refuge). In both sudden and slow-onset disasters, communities are vulnerable to damage, destruction, and displacement; delegates in this UNEP should work to find both preventative and reactive measures for either type of disaster.

Displacement

26.4 million people were displaced due to natural disasters in 2023 ("Global Report on Internal Displacement"). As natural disasters force people's displacement, with either their homes having been destroyed by a sudden-onset disaster, or their region made unlivable by a slow-onset disaster, their lives are

completely uprooted. There are two main categories of people displaced by natural disasters: IDPs (Internally Displaced People) - meaning someone displaced within their nation - and "climate refugees" - those forced to leave their countries after a disaster.

Importantly, the existing definition of a refugee is "a person who has been forced to leave their country to escape war, persecution, or natural disaster," and includes neither IDPs nor climate refugees (Ferris). Due to this definition, binding agreements that require aid and asylum for refugees do not apply to those displaced by natural disasters, either in or across borders. Even after fleeing dangerous conditions, displaced people may lack adequate shelter, food, clean water, and healthcare even after settling (UNHCR). Unlike economic migrants, who generally have the opportunity to prepare for their emigration, forced migrants, including climate refugees, are not able to bring savings or assets with them during displacement (Verme and Schuettler). On top of this economic insecurity, displaced people often struggle to adapt to their new environments due to language barriers, employment gaps (as a result of their displacement), and prejudice from employers (Ashworth). In recent years, influxes of refugees have become hotly politicized, specifically with host nations concerned about the economic impact of taking in immigrants. However, multiple studies show that wages, rent, and price fluctuations in host nations taking in displaced people are minimal or short-lived (Ashworth; Verme and Schuettler). Nevertheless, delegates must take into account their country's stance on immigration when considering climate refugees.

Case Studies

Super Typhoon Haiyan

One significant example of a natural disaster is the Super Typhoon Haiyan. On November 8, 2013, the then-most-intense tropical cyclone landed in Southeast Asia, causing mass destruction, particularly in the Philippines. The Category 5 storm, with winds up to 195mph, hit the Visayas region of the southern Philippines, destroying even government-designated storm shelters in its wake. The storm, known locally as "Yolanda," affected over 16 million people and displaced roughly 4 million. The government eventually confirmed that the cyclone killed over 6,300 Filipinos, making it the most deadly typhoon in the country's recent history (Singer). High sea levels may have exacerbated the storm's effects. Since 1970, sea levels in the Philippines have risen 200 millimeters, leading to more coastal flooding during storm surges (abnormal water level rise before a storm makes landfall) (Singer). The Philippines lies in the "Ring of Fire," a seismically active tectonic belt that has an increased risk of earthquakes, tsunamis, and volcanic eruptions (Britannica). Further, its coastal position in the Pacific Ocean makes it vulnerable to cyclones. Weeks before the Supertyphoon Haiyan, a 7.2 magnitude earthquake struck the country, impacting 3 million people and claiming over 200 lives. When the storm hit, it only compounded the challenges already facing the Philippines (Reid). The scale of the destruction caused by the typhoon meant that many former settlements were no longer habitable, and entire communities had to be resettled. Luckily, this has allowed Filipinos to build more resilient infrastructure following the cy-


c/o Britannica

clone. Before the typhoon hit, many natural barriers, like mangroves, were cut down to make way for fish farming. While this change not only harmed the biodiversity of the area, decreasing fish and shellfish populations, it also removed the natural protection from storm surges offered by mangrove trees. Since the typhoon, Filipino communities, like those in Tacloban, have begun restoring mangroves to integrate nature-based protection for coastal regions. Local farmers have also begun to embrace bamboo as a crop, which is both a quick-growing building resource but also enables flood control and soil resilience. Lastly, since 2013, the Philippines has adopted early warning systems, like the PhilAWARE modeling system, and emergency procedures, allowing quick evacuation in more recent cyclones (UNDRR). Given the interplay of rising sea levels due to global warming, worsened natural protection from overfishing, and poor infrastructure at the time of the cyclone, Super Typhoon Haiyan acts as an excellent case study for how climate-related natural disasters can impact developing coastal nations.

Australian Bushfires

In 2019 and 2020, Australia was hit with the most catastrophic bushfire season in the country's history, referred to as the "Black Summer." As a result of these widespread fires, 46 million acres were burnt, mainly forest and bushland (WWF). The first bushfires began in June 2019 and started escalating in September. At the time, heavy winds of up to 56 mph were hitting Australia, feeding and spreading the flames quickly. The deputy commissioner of the Queensland Fire and Emergency Services commented: "This early in the season is unprecedented," following the region's extremely dry conditions and two years of drought (Reuters). The fires worsened at the beginning of November 2019 as temperatures increased and drought continued (summer in Australia typically lasts from December - February). Although 2020 brought some heavy rain in January, providing some slight relief to certain areas affected by the bushfires, it was not enough to extinguish them. By the beginning of February, temperatures rose once again, alongside drought and high winds. Luckily, however, heavy rainstorms in mid-late February 2020 allowed firefighters to eventually contain all of the fires in New South Wales (a Southeastern Australian State). Finally, on March 4, 2020, nine months after they began, the Australian bushfires were all put out (CDP). Although only 33 human lives were lost to the fires, 3,100 homes were destroyed, 65,000 people were displaced, and an estimated 1.25 billion animals were killed (IDMC). In response, the Australian Government established the National Bushfire Recovery Agency, which is investing over $2 billion for families, farmers, and business owners affected by the bushfires. The Australian Government also announced a $50 million investment to support immediate wildlife protection and long-term environmental restoration following the fires (Australian High Commission). Australia has also worked with Google, Conservation International, and the WWF to incorporate an AI model to capture images of endangered animals returning to their habitats following the fires, such as koalas, echidnas, wombats, dingoes, and dunnarts (Conservation International). Although unprecedented, Australia's bushfires were heavily affected by high heat, droughts, and unpredictable rain patterns, all results of climate change.


c/o Matthew Abbot

Past Action

UNEP currently operates the NDC (Nationally Determined Contributions) Action Project, which helps direct its partner countries' contributions under the Paris Agreement into concrete strategies (NDC). In its 2023 NDC policy brief, UNEP acknowledged the failure of host countries to meet the needs of IDPs (Internally Displaced People) and refugees and that climate change could contribute to 216 million internal displacements by 2050. The brief emphasized incorporating sustainable environmental practices and displacement strategies to be integrated into nations' policies, specifically DRR (Disaster Risk Reduction). However, UNEP also highlighted some strides being made in the fight against disaster displacement. For example, the IOM (International Organization for Migration) has been seeking alternative power sources in refugee camps in Cox's Bazar, Bangladesh, an area prone to natural disasters and often dependent on humanitarian support. With UNEP's help through the NDC Action Project, Bangladesh has rehabilitated over 440,000 displaced families, improved disaster resilience and sustainable water access, and planted 1.58 million trees. UNEP underscored the IOM's pivotal role in providing clean water access for over 350,000 Yemeni people and electronic waste management in Ugandan refugee settlements. In this policy brief, UNEP endorsed emphasis on rights and humanitarian assistance for displaced individuals in climate action, individual country response plans to help the UN organize climate action initiatives, and local engagement for energy access. However, UNEP also recognized the importance of national sovereignty for nations hosting refugees, suggesting demand-driven aid, coherent international action, and addressing the root causes of displacement (such as environmental factors) through climate risk assessment. Lastly, UNEP called for dedicated funding to analyze data on environmental drivers of displacement to coordinate clean energy, engage governments to make new NDCs, address specific requests by governments for climate vulnerability assessments, and address the knowledge gaps necessary to address mitigation of displacement (UNEP, "Policy Brief").

Current Situation

LA Wildfires

Alongside the past examples of natural disasters, issues persist to the present. In early January 2025, an onslaught of wildfires began in Los Angeles, California. Firstly, the Palisades Fire began on the morning of January 7th as a brushfire. Over the month, the fire burned upwards of 23,000 acres and 6,800 structures before being fully contained on January 20th. Simultaneously, the Eaton Fire grew to over 14,000 acres and damaged over 10,000 structures. Smaller fires spread in Lidia, Archer, Woodley, Sunset, Kenneth, Hurst, and Auto, claiming a combined 2,399 acres before ending. Two weeks after the initial fires, the Hughes fire ignited on January 22nd, quickly growing to over 10,000 acres. Although the fires have all been extinguished, they cost $20 - 50 billion in damages, claimed at least 29 lives, and had 200,000 people under evacuation orders (Stelloh et al.). In the wake of this natural disaster, Los Angeles rent prices have increased by 15 to 20%, as countless homes were destroyed and supply could not keep up with the already unsustainable demand (Isidore). Although the total number of displaced people as a result of the L.A. wildfires is still unknown, they served as a wake-up call for California, whose policies prevented it from effectively using forest restoration efforts like mechanical thinning and prescribed burning to reduce fire risk (City Journal). This example proves that even developed nations like the United States need to reform their preparation and response plans regarding natural disasters. Proper environmental action is also necessary to ensure that wildfires like those in Los Angeles do not begin to spread in such dry environments.

Dry Corridor

Central America's "Dry Corridor" is a region including parts of Costa Rica, El Salvador, Guatemala, and Nicaragua. Its name comes from its inconsistent weather patterns with alternating periods of drought and heavy rainfall. A drought in 2015 caused corn yield losses to spike by 60 percent. In 2019, a prolonged

drought left 1.2 million people in the region needing food aid, and in 2021, communities in the Dry Corridor once again suffered intense crop losses. Luckily, however, the UN and other INGOs have made efforts to fight drought and desertification in the region. The Central American Integration System (SICA) and the UN's Food and Agriculture Organization (FAO) have supported agricultural practices like using cover crops, planting trees uphill, and agroforestry (UNEP). As initiatives continue in this region, it is important to acknowledge the effects climate change and slow-onset disasters like desertification can have on agriculture and food security, specifically in developing countries and vulnerable regions.

Current Global Issues

As these natural disasters progress, the status of climate change efforts is still lacking. According to UNEP's 2024 emissions gap report, CO_2 emissions need to be reduced by 47% before 2030 and 5% before 2035 to keep up with the SDGs and the goal of limiting global warming to 1.5°C. Unless NDCs are revitalized and expanded, the world is on track for a 2.6 - 3.1°C temperature increase by the end of the century, which would put people, the planet, and economies at risk, especially given that the frequency of climate disasters would increase alongside the temperature. Further, there are over 122.6 million people currently displaced, a significant portion of whom were forced to flee from natural disasters (UNHCR). The Institute for Economics and Peace, an independent think tank, predicted that by 2050, over 1 billion people could be displaced due to climate change. 67% of all refugees live in settlements called "protracted refugee situations," camps with over 25,000 refugees from the same nation, living displaced for at least 5 years. In these overcrowded protracted refugee situations, women and children are especially vulnerable to early marriage, child labor, and sex trafficking (UNHCR). As efforts are made to prevent and react to natural disasters, it is important to remember the overwhelming number of people currently forced to live away from their homes.


c/o Central America Link

Luckily, some current initiatives show promise for the future of natural disaster displacement. In 2015, the UN General Assembly endorsed the Sendai Framework for Disaster Risk Reduction, a guiding international agreement for nations to reduce the effects of natural disasters from 2015-2030. The framework first emphasizes understanding disaster risk through data analysis, disaster risk testing, transparency surrounding disasters' impacts, and scientific collaboration. Its second priority is strengthening disaster risk governance with local legal frameworks for governments, companies, public awareness, and financial incentives. Third, investment in resilience with economic and social safety nets, structural prevention in facilities like schools and hospitals, and new building codes. Lastly, to enhance recovery through developing contingency plans, emergency communication systems, community centers to stockpile resources, and training for disaster response (UNDRR). New technologies are also helping reduce the effects of natural disasters. Satellite imagery, for example, has enabled greater data to be gathered on damage in a given region following a disaster, allowing for quicker and more reliable information to be published

(UMass). Recently, DEEP Robotics, a Chinese engineering company, has developed the Jueying X20 Robot Dog, an unmanned robot that can navigate complex terrain (such as a post-earthquake community), inside dangerous debris, and in areas with smoke or toxic chemicals that first responders would not be able to. The robot is also capable of carrying rescue supplies like oxygen bottles to aid victims of a natural disaster (He). Lastly, practices in infrastructure, such as ductility (the ability for buildings to bend without collapsing) through steel reinforcement have been shown to improve buildings' resilience to disasters like earthquakes (Cofer). If incorporated on a global scale, perhaps these technologies, alongside emerging breakthroughs in disaster prevention, could help mitigate future damages.

Bloc Positions

Developed Nations

As developed countries, these nations typically have the best infrastructure, both contributing the most to CO2 and greenhouse gas emissions and benefiting from greater disaster preparedness. However, many of these advocate for environmental reform, both domestically and in the UN; they are most equipped to incorporate renewable energy. However, disparities in this bloc persist, as the United States recently pulled out of the Paris Climate Agreement.

Many developed countries support humanitarian aid and are host nations for those displaced by natural disasters. However, developed countries are also often divided over their immigration policies. The United States and the United Kingdom, for example, have stark stances and divisions over how immigrants, including climate refugees, should be treated within their nations in addition to questions of whether they should even be admitted. Delegations representing developed countries should review their nation's specific stances and past actions to accurately represent their country's foreign policy in committee.

Developing Countries

As developing countries, these nations are most impacted by natural disasters, with less infrastructure to respond to crises and geographic locations in vulnerable regions. Importantly, developing countries do not contribute as much to carbon emissions as their developed counterparts; however, they also often do not have the resources to adopt renewable energy sources, with some relying on oil deposits for energy. Delegations representing developing countries should advocate for policies that would best support recovery and preparations for natural disasters, particularly in the developing world, given their histories and previous actions.

Questions to Consider

1. What long and short-term solutions will help strengthen global systems to prepare for and respond to natural disasters?
2. How can natural disasters be prevented in the face of climate change? How can the contributors of CO2 emissions be held accountable?
3. In what ways can vulnerable areas, such as coastal and landlocked regions or areas with high seismic activity, be better prepared for natural disasters?
4. How can legal frameworks be updated to protect those displaced by natural disasters?
5. How can existing IDPs and climate refugees be supported in displacement?
6. What role should host nations play in aiding climate refugees?
7. What new technologies can be leveraged to help mitigate natural disaster displacement?

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