

QTMUN 2023



Protecting Animals, Species, and Terrains Against Abuse

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Equity Disclaimers

Throughout this committee, delegates will be engaging in complex debates and discussions covering a wide array of topics. As UTMUN seeks to provide an enriching educational experience that facilitates understanding of the implications of real-world issues, the content of our committees may involve sensitive or controversial subject matter for the purposes of academia and accuracy. We ask that delegates be respectful, professional, tactful, and diplomatic when engaging with all committee content, representing their assigned country's or character's position in an equitable manner, communicating with staff and other delegates, and responding to opposing viewpoints.

This Background Guide presents topics that may be distressing to some Delegates, including but not limited to: discrimination, violence against animals, colonialism, and the persecution of Indigenous Peoples. Great care will be taken by staff in handling any/all of these topics should they arise.

UTMUN recognizes the sensitivity associated with many of our topics, and we encourage you to be aware of and set healthy boundaries that work for you. This may include: refraining from reading certain parts of the background guide, preparing yourself before reading this background guide, doing some self-care or seeking support after reading the background guide, or anything that can help make you feel more comfortable. We ask that all Delegates remain considerate of the boundaries that other Delegates set.

UTMUN expects that all discussions amongst delegates will remain productive and respectful of one another. If you have any equity concerns or need assistance in setting boundaries or navigating sensitive subject matter, please do not hesitate to reach out to me or our Equity Director, Aidan Thompson, at equity@utmun.org. We want you to feel safe and comfortable at UTMUN!

If you wish to switch committees after having read the content warnings for this committee, please:

- Contact your Faculty Advisor/Head Delegate with your request if you are a part of a group delegation
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The below code of conduct applies to the behaviour of all attendees of UTMUN for the entire duration of the conference, while engaging in any conference-related activities, including but not limited to committee sessions, conference socials, committee breaks, and the opening and closing ceremonies.

1. Harrassment and bullying in any form will not be tolerated, the nature of which includes, but is not limited to, discrimination on the basis of race, national origin, ethnicity, colour, religion, sex, age, mental and physical disabilities, socioeconomic status, sexual orientation, gender identity, and gender expression,
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 - ii. Nonconsensual sexual contact and/or behaviour between any individuals and/or groups of individuals;
 - iii. Sexual contact or behaviour between delegates and staff members is strictly forbidden;
2. UTMUN expects all attendees to conduct themselves in a professional and respectful manner at all times during the conference. Specific expectations, include, but are not limited to,
 - a. Attendees must, if able, contribute to the general provision of an inclusive conference and refrain from acting in a manner that restricts other attendees' capacity to learn and thrive in an intellectually stimulating environment;
 - b. Attendees must adhere to the dress code, which is Western business attire;
 - i. Exceptions may be made on a case-by-case basis depending on the attendees' ability to adhere to the previous sub-clause;
 - ii. Attendees are encouraged to contact Director of Equity, Aidan Thompson, with questions or concerns about the dress code or conference accessibility;
 - c. Attendees must refrain from the use of cultural appropriation to represent their character

- and/or country, including the use of cultural dress, false accent, and any behaviour that perpetuates a national or personal stereotype;
- d. Delegates must not use music, audio recordings, graphics, or any other media at any time unless approved and requested to be shared by the Dais and/or the Director of Equity, Aidan Thompson;
- e. Attendees must abide by instructions and/or orders given by conference staff members;
 - i. Attendees are exempt from this above sub-clause only if the instructions and/or orders given are unreasonable or inappropriate;
- 3. Delegates, staff, and all other conference participants are expected to abide by Ontario and Canadian laws and Toronto by-laws, as well as rules and regulations specific to the University of Toronto. This includes, but is not limited to,
 - a. Attendees, regardless of their age, are strictly prohibited from being under the influence and/or engaging in the consumption of illicit substances, such as alcohol or illicit substances for the duration of the conference;
 - b. Attendees are prohibited from smoking (cigarettes or e-cigarettes, including vapes) on University of Toronto property;
 - c. Attendees must refrain from engaging in vandalism and the intentional and/or reckless destruction of any public or private property, including conference spaces, venues, furniture, resources, equipment, and university buildings;
 - i. Neither UTMUN nor any representatives of UTMUN is responsible for damage inflicted by attendees to property on or off University of Toronto campus;
 - ii. Individuals will be held responsible for any damages.
- 4. The Secretariat reserves the right to discipline delegates and/or attendees for not adhering to/violating any of the above stipulations. Disciplinary measures include, but are not limited to,
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 - c. Disqualification from awards;
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- 5. If online, additional rules apply to delegate and staff conduct, including but not limited to Zoom background usage. Delegates must use either conference-provided Zoom backgrounds, the blurred background, solid colours, or no background.
- 6. UTMUN reserves the right to the final interpretation of this document.

For further clarification on University of Toronto Model United Nations' policies regarding equity, questions, concerns, or for any equity violations that attendees would like to raise, please contact equity@utmun.org, or fill out this [anonymous form](#).

A Letter from Your Director

Greetings, delegates!

Welcome to the first iteration of the General Assembly on Protecting Animals, Species, and Terrains Against Abuse (hereafter known as PASTAA)! I'm Siya Duggal, your committee director, as well as a first-year student aspiring to major in history and international relations.

I'd like to take a moment to introduce the lovely Dias. I'm joined by your incredible Vice Director, Annie Li, who is a second-year student majoring in Ethics, Society, and Law and Criminology, and your Moderator, Sareena Kelash, who is a first-year student pursuing Rotman Commerce. We are honoured to lead this committee, and we hope that you make loads of incredible memories at UTMUN 2023!

Delving into the topics, PASTAA this year will be debating two topics. Topic A focuses on combating environmental degradation while Topic B is centred around tackling resource scarcity. While focusing on the environmental aspect of these issues is an important aspect of your delegation's stance, I'd like to emphasize that since we are a General Assembly, the Dias looks highly favourably upon delegates making connections to the political and economic effects. This background guide highlights this approach, and it will thus serve as a starting point for your research.

As a final note, if you have any questions/concerns while preparing for a wondrous and insightful debate, please feel free to reach out; I'm more than happy to help!

Yours truly,
Siya Duggal
Director, United Nations General Assembly, PASTAA
pastaa@utmun.org

Introduction to PASTAA

The international community extends beyond merely human beings; it is inclusive of the entirety of the natural world as well. Animals, plants, land, oceans, and the biosphere are also potential sources of critical global conflicts. Whether it's the extinction of an animal species, the eradication of a vital crop, the deterioration of a key piece of land, or the increasing prominence of light or noise pollution; the numerous issues posited by the natural world are undeniably deserving of international attention, requiring the establishment of PASTAA.

First, PASTAA will seek to mediate some of the effects of environmental degradation. The committee will consider key human activities such as deforestation, water pollution, and poaching. In doing so, PASTAA will examine various precedents established in maritime, climate, or conservation laws. PASTAA also acknowledges the historical treatment of Indigenous populations and emphasizes the cultural significance of land to Indigenous populations worldwide. Delegates are urged to consider the relationship between environmental policies and the Indigenous members of their countries.

Second, PASTAA will investigate the issue of resource scarcity and work to ensure its victims have the means to mitigate such discrepancies. The scarcity of food, water, space, and natural resources is growing due to the finite nature of the earth. A theme throughout this committee will be that scarcity is a function of not only limited resources but also of unlimited wants. This background guide will guide delegates through examples that emphasize this theme. It is vital that PASTAA crafts sustainable solutions to combat resource scarcity while keeping this theme in mind.

With that, welcome to the first iteration of the General Assembly focused on protecting, animals, species, and terrains against abuse!

Abbreviations

UN: United Nations
 EU: European Union
 GDP: Gross Domestic Product
 NGO: Non-Governmental Organization
 AWF: African Wildlife Fund
 FAO: United Nations Food and Agriculture Organization
 NYDF: New York Declaration on Forests
 UNDP: United Nations Development Programme
 UNGA: United Nations General Assembly
 UNFF: United Nations Forum on Forests
 IIASA: International Institute for Applied Systems Analysis
 CITES: Convention on International Trade in Endangered Species of Wildlife Fauna and
 UNPFII: United Nations Permanent Forum on Indigenous Issues
 PASTAA: Protecting Animals, Species, and Terrains Against Abuse

Flora

Topic A: Environmental Degradation

Environmental degradation is defined as, “a process through which the natural environment is compromised in some way, reducing biological diversity and the general health of the environment”.¹ Environmental degradation occurs naturally, but it can also be prompted by human activities.² Topic A focuses on human-caused environmental degradation.

Deforestation

Take a moment to picture Western Europe. Some sights you may imagine are flourishing civilizations, major cities, and historical monuments. You might picture some forestry as well, but not to the extent that there once was. 2000 years ago, 80% of Western Europe was covered by lush forests.³ Western Europe showcases the deep roots of deforestation. More recently, the United Nations’ Food and Agriculture Organization revealed that since 1990, Earth has witnessed the loss of 420 million hectares of forests.⁴ So, the question must be raised, where did these forests go?

Humankind has been clearing forests for millennia. The need for land to fuel the human lifestyle results in deforestation. Forests are often replaced with residences, corporations, and factories. Food is highest on Maslows’ hierarchy of needs.⁵ This may explain why the leading cause of deforestation is agriculture.⁶ Small-scale farming was the primary cause of forests being converted to agricultural land. Nowadays, however, alongside the world’s population, the demand for products such as meat, palm oil, coffee, soy, and cocoa is increasing.⁷ Consequently, with Africa as the only exception, livestock ranching and plantation agriculture are taking over worldwide as the primary cause of deforestation.⁸ A lack of enforcement with regard to environmental regulations also contributes to increasing deforestation. “Global trade arrangements and trade barriers, such as the EU trade barriers for meat compared to 0% tariffs for soybeans” also play a significant role in increasing deforestation.⁹

¹ “Environmental Degradation,” General Multilingual Environmental Thesaurus (GEMET, December 6, 2021), <https://www.eionet.europa.eu/gemet/en/concept/15154>.

² Ibid.

³ National Geographic, “Deforestation | National Geographic Society,” education.nationalgeographic.org (National Geographic, May 20, 2022), <https://education.nationalgeographic.org/resource/deforestation>.

⁴ Christina Nunez, “Deforestation and Its Effect on the Planet,” National Geographic (National Geographic, February 7, 2019), <https://www.nationalgeographic.com/environment/article/deforestation>.

⁵ Lumen Learning and Linda Williams, “Reading: Maslow’s Hierarchy of Needs | Introduction to Business,” Lumen (Pressbooks, 2019), <https://courses.lumenlearning.com/wmintrobusiness/chapter/reading-need-based-motivation-theories/>.

⁶ “Deforestation and Forest Degradation | Threats | WWF,” World Wildlife Fund (World Wildlife Fund Inc., 2022), <https://www.worldwildlife.org/threats/deforestation-and-forest-degradation#:~:text=The%20main%20cause%20of%20deforestation>.

⁷ “WWF - What Is Forest Conversion?,” World Wildlife Fund (World Wildlife Fund Inc., 2020), <https://wwf.panda.org/discover/our-focus/forests-practice/deforestation-causes2/forest-conversion/>.

⁸ Ibid.

⁹ Ibid.

Land plants produce 28% of the world's oxygen, and they absorb 25% of the world's carbon dioxide. This absorption allows for a reduction in carbon dioxide affecting global warming. However, deforestation is an imminent threat that will reduce land plants' carbon dioxide absorption.¹⁰ Second only to burning fossil fuels, deforestation is a significant source of greenhouse gas emissions.¹¹ With that in mind, researchers believe nearly a third of global carbon emissions can be eliminated simply by "halting and reversing land clearance in tropical forests".¹² This serves to reiterate the significance of addressing deforestation in the Amazon.

Not only are forests being cut down, but in fact, there are nations on this planet which have no trees. According to the World Bank's definition of forests, Qatar, Greenland, San Marino, and Oman have no forests.¹³ The climates of some of these nations can be accredited for the lack of trees.¹⁴ For instance, Qatar and Oman are covered with deserts.¹⁵ That being said, it may be possible to plant forests in this area. Scientists who have introduced lush greenery in China are now working to turn Egypt's deserts green.¹⁶ San Marino, on the other hand, has a better climate;¹⁷ however, it still lacks forestry. Consequently, the nation's laws prohibit cutting down any tree with a diameter greater than 10 centimeters. These regulations have been imposed to decrease deforestation in the country.¹⁸

Case Study: Amazon Rainforest

The Amazon, with a size as great as the United States, is the world's largest rainforest.¹⁹ It "absorbs more greenhouse gases than any other tropical forest" on Earth,²⁰ yet deforestation in the Amazon has been making the headlines for years. In July 2022, the British Broadcasting Corporation revealed that the Amazon Rainforest's deforestation rate is at the highest it has

¹⁰ Ed Fernyhough, "The Politics of Deforestation," Medium (ILLUMINATION, May 7, 2021), <https://medium.com/illumination/the-politics-of-deforestation-4dc1de17930a>.

¹¹ Council on Foreign Relations, "Deforestation in the Amazon," Council on Foreign Relations (Council on Foreign Relations, n.d.), <https://www.cfr.org/amazon-deforestation/#/en>.

¹² Ibid.

¹³ Oliver Smith, "16 Facts about Qatar, the Richest, Safest, Most Polluting Country on Earth," Luxury Travel Advisor (Questex LLC, December 19, 2017), <https://www.luxurytraveladvisor.com/destinations/16-facts-about-qatar-richest-safest-most-polluting-country-earth>.

¹⁴ "Why Are There No Trees in Qatar?," NatureNibble, April 20, 2022, <https://naturenibble.com/why-are-there-no-trees-in-qatar/>.

¹⁵ Ibid.

¹⁶ Steve Rose, "Our Biggest Challenge? Lack of Imagination: The Scientists Turning the Desert Green," The Guardian, March 20, 2021, <https://www.theguardian.com/environment/2021/mar/20/our-biggest-challenge-lack-of-imagination-the-scientists-turning-the-desert-green>.

¹⁷ "San Marino Climate, Weather by Month, Average Temperature (San Marino) - Weather Spark," Weather Spark (Cedar Lake Ventures), accessed September 8, 2022, <https://weatherspark.com/y/150278/Average-Weather-in-San-Marino-Year-Round>.

¹⁸ Lumbreras, Emilio Laguna (2001). The micro-reserves as a tool for conservation of threatened plants in Europe. Strasbourg: Council of Europe Pub. p. 75. ISBN 9789287146649. As quoted in https://en.wikipedia.org/wiki/Protected_areas_of_San_Marino#cite_note-4

¹⁹ Ibid.

²⁰ Ibid.

been over the past six years.²¹ Two-thirds of the Amazon Rainforest lies in Brazil,²² which is why occurrences in the nation are often credited with causing the Amazon's deforestation. Some say this issue began when approximately 50 years ago, Brazil incentivized its citizens to settle in the area. These settlements have yielded soy farms, cattle enclosures, and logging yards being built on land that was formerly part of the Amazon Rainforest.²³

Some also link Brazil's current President, Jair Bolensaro, to the increasing level of deforestation.²⁴ The source of Bolensaro's defamation is his decision to promote deforestation due to the economic gain it brings. The majority of the deforested area of the Amazon between 2001-2013 has been replaced with cattle ranches. However, the products of this industry only make up a sliver of Brazil's GDP. ²⁵ Agriculture also profits from deforestation, and it makes up 5.8% of Brazil's GDP. ²⁶

The situation in the Amazon highlights the necessity of analyzing the value of economic gain sourced from environmental harm.

Case Study: The Environmental Value of the World's Largest Forest - Russia's Boreal Forests

Russia is home to over a fifth of the world's trees. Spanning eleven time zones, Russia's boreal forest "has been soaking up carbon dioxide from the air at an unprecedented rate."²⁷ With climate change resulting in warmer global temperatures, Russia's trees have begun to grow faster and "edge northward into the Arctic tundra".²⁸

However, climate scientists have brought up concerns about reliance on these forests. An author from an Austria-based intergovernmental research institution, IIASA, calculated that since 1988 "Russia's boreal forests have been capturing an average of 1.7 billion tons of carbon dioxide each year".²⁹ In contrast, a member of the European Commission's Joint Research Centre, Giacomo Grassi, stated that "the Russian forest sink is still very uncertain."³⁰ He revealed an alternate research study in which the Russian forest sink only captures 180 million tons of carbon dioxide yearly.³¹ A *Nature* study revealed forest fires to be a predominant cause of this variance in the size of Russia's carbon sink. For instance, in some years, Russia's carbon absorption

21 Malu Cursino, "Amazon Rainforest: Highest Deforestation Rate in Six Years," BBC News, July 9, 2022, sec. Latin America & Caribbean, <https://www.bbc.com/news/world-latin-america-62103336>.

22 Ibid.

23 Matt Sandy, "The Amazon Rain Forest Is Nearly Gone. We Went to the Front Lines to See If It Could Be Saved," TIME (TIME USA, 2019), <https://time.com/amazon-rainforest-disappearing/>.

24 Ibid.

25 Ibid.

26 Ibid.

27 Fred Pearce, "Will Russia's Forests Be an Asset or an Obstacle in Climate Fight?," Yale E360 (Yale School of the Environment, July 15, 2021), <https://e360.yale.edu/features/will-russias-forests-be-an-asset-or-obstacle-in-the-climate-fight>.

28 Ibid.

29 Ibid.

30 Ibid.

31 Ibid.

exceeds 2 billion tons, but in the past few years, forest fires have reduced this value to 400 millions tons.³²

Despite the uncertainties surrounding the amount of carbon captured by Russia's forests, the growth in forests highlights a potential solution. Since 1990, 188 million acres of collective farmland has been abandoned.³³ Trees have begun regrowing onto these lands. This highlights the possibility for converted forest land around the world to once again be populated with trees.³⁴

Past UN Action

The 1992 UN Earth Summit in Rio de Janeiro produced the United Nations Framework Convention on Climate Change. Through this convention, world leaders agreed to work cooperatively with the aim of combating climate change.³⁵ This summit also yielded the Statement on Forest Principles. While it was non-binding, the document issued recommendations regarding the conservation of forests.³⁶

The UNDP launched a call known as the "New York Declaration on Forests" (NYDF) at the 2014 Climate Action Summit.³⁷ They have renewed this call to action in 2021. The NYDF includes 10 goals with numerous aims, including the following; restoring 350 million hectares of degraded land, halting "natural forest loss by 2030", improving regulations surrounding forests, protecting the rights of communities near forests, and "reducing carbon emissions from deforestation and forest degradation".³⁸

In 2015, thirty-six countries signed the "UN Agreement on Forests".³⁹ This agreement was "a voluntary pledge to 'at least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030'".⁴⁰ Stating that they were not consulted during the agreement's drafting process, the country housing the world's largest rainforest, Brazil, did not sign this agreement. However, individual states, Acre, Amapa, and Amazonas, who, if combined, "make up about a third of Brazil's share of the Amazon," did sign.⁴¹

The United Nations has also implemented the International Arrangement on Forests which "has five main components".⁴² This arrangement involves UNFF member states, the

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Clea Paz-Rivera, "A Renewed Call to Halt Deforestation by 2030 | United Nations Development Programme," UNDP (United Nations Development Programme, November 2, 2021), <https://www.undp.org/blog/renewed-call-halt-deforestation-2030>.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² United Nations, "International Arrangement on Forests," United Nations Department of Economic and Social Affairs (United Nations, 2015), <https://www.un.org/esa/forests/documents/international-arrangement-on-forests/index.html>.

UNFF secretariat, the UNFF Trust Fund, and Global Forest Financing Facilitation Network. The Collaborative Partnership on Forests is also part of this arrangement.⁴³

Potential Solutions

Delegates may consider various solutions to combat deforestation. Nations may incentivize planting trees through the consumer goods that deforestation is linked to. For instance, a beauty products company based in India, MamaEarth, has implemented an initiative where every order placed is linked to a sapling being planted.⁴⁴ Thus, while beauty products may be consuming resources linked to deforestation, they are attempting to regrow the forests they harm. Similarly, TD Canada Trust is working with members of the community to create green spaces in cities; the creation of cities is a great cause of deforestation, and TD's initiative is helping rectify the environmental damage done via urbanization.⁴⁵ The financial institution has helped fund nearly 450 environmental projects across Canada, and it offers a leadership program to further. Delegates may consider implementing something similar to boost environmental literacy and green spaces in their nations.⁴⁶

Research has revealed a positive correlation between Indigenous ways of living and reduced deforestation. Thus, delegations may consider promoting cooperation with Indigenous Peoples.⁴⁷

Delegates may also consider working with the United Nations Conference on Trade and Development (UNCTAD) to impose trade tariffs against companies whose ecological footprint is greater than their ecological contribution. Finally, delegates may consider providing UN support to the scientists working to turn the desert green.⁴⁸

Water Pollution

Water pollution is generally defined as “when toxic substances enter water bodies such as lakes, rivers, oceans and so on, getting dissolved in them, lying suspended in the water or depositing on the bed.”⁴⁹ There are various pollutants that degrade water quality. Six recognized pollutant types are “pathogens, biochemical oxygen demand, nutrients, toxic materials,

⁴³ Ibid.

⁴⁴ “We Plant Goodness,” Mamaearth (Honasa Consumer Pvt. Ltd), accessed August 26, 2022, <https://mamaearth.in/plant>.

⁴⁵ “Green Spaces,” TD, accessed October 4, 2022, <https://www.td.com/ca/en/about-td/ready-commitment/vibrant-planet/green-spaces/>.

⁴⁶ Ibid.

⁴⁷ “UNCTAD,” United Nations Conference on Trade and Development (UNCTAD - Palais des Nations, 2019), <https://unctad.org>.

⁴⁸ Ibid.

⁴⁹ WWF, “Water Pollution,” WWF (World Wildlife Fund, 2020), https://wwf.panda.org/discover/knowledge_hub/teacher_resources/webfieldtrips/water_pollution/.

acidification and heat.”⁵⁰

One of the greatest sources of water pollution through nutrients and pathogens is sewage.⁵¹ Sewage and other human activities that generate toxic waste lead to pollution via “disease-causing microorganisms and poisonous substances”.⁵² Waste sourced from sewage also causes algae growth which reduces oxygen levels in the water; thus, excessive algae growth leads to a decline in other marine life.⁵³

Oil spills are also a great contributor to water pollution as they involve water pollution through toxic materials.⁵⁴ A notable example is the 2010 Deepwater Horizon oil spill which devastated marine life in the Gulf of Mexico. Known as the largest oil spill in marine history, the Deepwater Horizon spill was a catastrophic consequence of an explosion in the oil rig it is named after.⁵⁵ Following this extreme water pollution, the Gulf of Mexico now faces seasonal ‘dead zones’ annually, which are essentially “hypoxic areas where dissolved oxygen levels drop so low that most higher forms of aquatic life vanish”.⁵⁶ While the Gulf of Mexico is a well-known example, this hypoxia is a problem faced by water bodies around the world that are suffering from the effects of water pollution.⁵⁷

While oil spills and sewage are significant sources of water pollution, the greatest pollutant is solid waste, which includes “garbage, rubbish, electronic waste, trash, and construction and demolition waste”.⁵⁸ The most critical occurrences of this type of pollution are seen in developing countries because they lack the resources to properly dispose of waste. Countries lacking regulations against improper waste disposal also cause such pollution.⁵⁹ That being said, while more prominent in developing countries, improper waste disposal also occurs in developed countries.⁶⁰

Not only does water pollution affect the environment, but it also comes back to affect humanity in numerous ways. With the decline in fish population that results from water pollution, the fishing industry is most severely hit by this practice.⁶¹ Sewage also affects human recreation as seen in Great Britain throughout the summer of 2022.

⁵⁰ Dorsey, Anthony H.j.. “Water Pollution.” The Canadian Encyclopedia. Historica Canada. Article published February 07, 2006; Last Edited March 23, 2015.

⁵¹ “How Wastewater Affects Nearshore Fisheries - Insights from Our Shared Seas,” Our Shared Seas (Our Shared Seas, August 25, 2021), <https://oursharedseas.com/how-wastewater-affects-nearshore-fisheries/>.

⁵² Nathanson, J. A.. “water pollution.” Encyclopedia Britannica, August 13, 2022. <https://www.britannica.com/science/water-pollution>.

⁵³ Ibid.

⁵⁴ Pallardy, R.. “Deepwater Horizon oil spill.” Encyclopedia Britannica, August 23, 2022. <https://www.britannica.com/event/Deepwater-Horizon-oil-spill>.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid.

Case Study: Britain - Sewage in Rivers and Beaches

Many British news outlets have reported that raw sewage has been leaking into the nation's seawater. Heavy rains have resulted in the sewage system overflowing.⁶² This contamination has triggered "new pollution risk warnings and advice against bathing from the Environment Agency in dozens of swimming spots."⁶³ In addition, numerous popular beaches have closed due to wastewater at the shoreline.

This issue could be resolved by separating the sewage and stormwater drainage system; however, the cost would be hundreds of billions of pounds. To cover this cost, household bills may be raised by "£569 to £999 per year".⁶⁴ While Britain is avoiding this high-cost solution, they are upgrading the sewage system to reduce "overflows to times of exceptional rainfalls". Britain is building the Thames Tideway Tunnel, also known as the Super Sewer.⁶⁵ Priced at £4 billion, this sewer will span 25 kilometers "from east to west London".⁶⁶ London's sewage system was originally designed in the Victorian era to serve 4 million people.⁶⁷ Thus, the issues with the current sewage system are understandable given that London's present population is 9 million.⁶⁸ While it will not result in zero discharges, this system will "reduce sewage spills from more than 50 a year to only three or four."⁶⁹

The situation in Britain highlights the disturbance to people's way of life should water be polluted. British health officials have deemed the problematic sewage discharges "a serious public health issue for government and regulators."⁷⁰ It also showcases how spending money is avoided at the cost of harming the environment, resulting in environmental degradation. While funds are important to consider, opportunity cost is also a variable that must be examined. While the monetary cost of protecting the environment may be high, the opportunity cost that would be paid is even higher. For instance, Britain's citizens would not be able to use the beaches, government support may decrease, and the world would suffer greater effects of climate change.

62 Irina Anghel, "Swimmers Are Having to Avoid Sewage on Britain's Beaches — Here's Why - BNN Bloomberg," BNN Bloomberg (Bell Media, August 26, 2022), <https://www.bnnbloomberg.ca/swimmers-are-having-to-avoid-sewage-on-britain-s-beaches-here-s-why-1.1810917>.

63 Ibid.

64 Ibid.

65 Ibid.

66 Ibid.

67 Ibid.

68 Ibid.

69 Ibid.

70 Ibid.

Case Study: The Pacific Trash Vortex

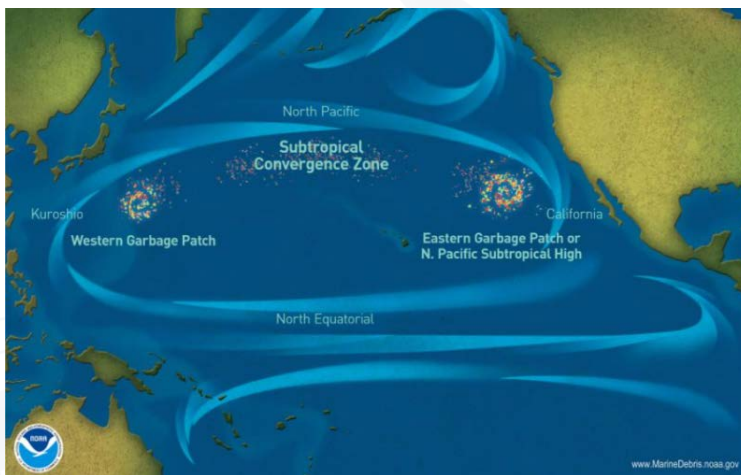


Figure 1: The Two Garbage Patches of the Pacific Trash Vortex ⁷¹

When you think of oceans, you may reminisce about beaches along the coast, fishes, seagulls chirping, sailors, tides, and waves on the sea. Unfortunately, with the creation of plastic, humankind has added another element to the sea. Plastic now rules the waves. A collection of plastic and other marine debris has formed what is commonly known as the Great Pacific Garbage Patch. A more accurate name, however, may be the Pacific trash vortex. A garbage patch implies a singular group of trash floating in the ocean; however, the garbage patch is composed of the Eastern and Western garbage patches. The two patches are linked together at the North Pacific Subtropical Convergence Zone. The entire Pacific Trash Vortex is bounded by “the massive North Pacific Subtropical Gyre”.⁷²

While the idea of a garbage patch may cause you to imagine an island of plastic in the ocean, the Pacific trash vortex is composed of patches of microplastics. Microplastics are not visible to the naked eye, and they are also not visible through satellite imagery⁷³. Instead, this debris may simply make the ocean “water look like a cloudy soup”.⁷⁴ Not only does debris float on water, but 70% of marine debris sinks to the bottom of the ocean.

Marine life is at great risk due to this trash vortex. Sea turtles often believe plastic bags are jellyfish, which happens to be their favourite food.⁷⁵ Similarly, Albatrosses view plastic resin pellets as fish eggs and feed them to their young chicks; consequently, they die of ruptured organs or starvation.⁷⁶ Furthermore, marine mammals often get entangled in plastic fish nets.

⁷¹ Jeannie Evers, “Great Pacific Garbage Patch | National Geographic Society,” National Geographic: Learn with us (National Geographic Society, June 2, 2022), <https://education.nationalgeographic.org/resource/great-pacific-garbage-patch>.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Ibid.

Fish nets are believed to make up half the mass of the garbage patch, and result in ghost fishing. Seals and mammals often get trapped and drown in these abandoned fish nets.⁷⁷ Finally, marine debris alters food webs by threatening plankton and algae. Autotrophs such as these species are at the bottom of the food chain and use sunlight to produce their own food. Trash on the surface blocks sunlight, and in turn, reduces the population of these producers. As a result, species higher in the food chain have reduced food availability, which may alter food webs.⁷⁸

According to a 2015 Study by *Science*, “the top six countries for ocean garbage are China, Indonesia, the Philippines, Vietnam, Sri Lanka and Thailand.”⁷⁹ Of these countries, China has also been importing plastic waste for recycling. Since 1992, “China has imported about 45 percent of the world’s plastic waste.”⁸⁰ It is still unclear who exactly is responsible for cleaning the gyres; thus, throughout the committee, delegates must work to establish cleanup efforts and decide who is responsible for cleaning the trash vortex.

The Pacific Garbage Patch is the biggest, but not the only trash vortex. The Atlantic and Indian Oceans both also have marine trash vortexes. Shipping routes in small bodies such as the North Sea have also begun developing trash vortexes.⁸¹ Delegates may also explore these alternate trash vortexes in their research.

Past UN Action

The United Nations adopted the Sustainable Development Goals in 2015. Goal 3.9 aims to resolve global water pollution by 2030.⁸²

Possible Solutions

Delegates may consider implementing technology similar to the moving bed biofilm reactor (MBBR) utilized by Norway.⁸³ This technology utilizes various biological methods to treat the water. However, this method also comes with a large price tag.⁸⁴ Thus, you must consider your delegation’s economic condition before implementing such a solution. Delegations may also seek out their allies in committee to assist in implementing such technologies. You may also

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Doyle Rice, “Where Did the Trash in the Great Pacific Garbage Patch Come From? How Do We Stop It?” USA TODAY (Gannet Satellite Information Network, September 7, 2018), <https://www.usatoday.com/story/tech/science/2018/09/07/great-pacific-garbage-patch-where-did-all-trash-come/1133838002/>.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Judith Arrieta Munguia, “The United Nations Is Working to Solve the Global Water Pollution Crisis by 2030,” Outrider (Outrider, June 23, 2020), <https://outrider.org/climate-change/articles/united-nations-working-solve-global-water-pollution-crisis-2030>.

⁸³ Delhi News, “A Solution Used in Norway Can Help Reduce Delhi Water Pollution, as per UN Body,” Hindustan Times (HT Digital Streams Ltd., August 25, 2022), <https://www.hindustantimes.com/cities/delhi-news/a-solution-used-in-norway-can-help-reduce-delhi-water-pollution-as-per-un-body-101661391006826.html>.

⁸⁴ Ibid.

consider taking inspiration from Bundadood, Australia who banned bottled water sales in 2009.⁸⁵ Many environmentalists and scientists recommend the use of biodegradable materials rather than single-use plastics. Delegates may also take inspiration from Australia's 700 million dollar plan to restore the Great Barrier Reef. Under this plan, Australia has promised to fund projects aimed at reducing erosion and farmland's pesticide runoffs.⁸⁶ It also incorporates other conservation efforts such as "combating coral-eating crown-of-thorns starfish and illegal fishing."⁸⁷

Poaching

Poaching is the illegal catching, trafficking, or killing of wildlife on property that is not your own.⁸⁸ Poaching is different from hunting because the latter is protected by law, requires a license, and has seasonal timings, while the former is always unlawful.⁸⁹ Any animal that is killed illegally is poached, but most poachers are motivated by the collection of rare animal parts such as ivory, bones, and leather.⁹⁰ Poaching leads to various detriments, such as the reduction of animal populations, altering of the ecosystem, and the killing of park rangers and volunteers.⁹¹ There are concerns with the transmissibility of dangerous pathogens through the illegal trading of animals.⁹²

Case Study: Ivory Poaching

Ivory is a bone tissue found in elephant tusks that are used to make jewellery and as medicine. The cutting of elephant tusks causes them extreme pain because of the nerve endings in them.⁹³ Despite the banning of international trade on ivory, poaching continues and has caused Africa's elephant population to decline from 26 million in the 1800s to less than a million today.⁹⁴ In 2012, more than 25,000 elephants were killed on the continent,⁹⁵ and the hunting has caused the animals to evolve to be tuskless, as surviving tuskless elephants passed their genes onto their children.⁹⁶ Efforts to dye the horns of the elephants to deter poaching may prove distressing

⁸⁵ "History 101: Bottled Water," TV Series Episode (Netflix, 2022), <https://www.netflix.com/us/title/81116168?s=i&trkid=13747225&vlang=en&clip=81601879>.

⁸⁶ Phil Mercer, "Australia Promises Multimillion Dollar Plan to Tackle Great Barrier Reef Pollution," VOA, January 29, 2022, <https://www.voanews.com/a/australia-promises-multimillion-dollar-plan-to-tackle-great-barrier-reef-pollution/6417993.html>.

⁸⁷ Ibid.

⁸⁸ "Poaching | National Geographic Society," National Geographic (National Geographic Society, 2022), <https://education.nationalgeographic.org/resource/poaching>.

⁸⁹ Doris Lin, "Poaching and Its Effects on Wildlife," Treehugger (Dotdash Meredith, February 14, 2022), <https://www.treehugger.com/overview-of-poaching-127892>.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

⁹³ "What Is Ivory," IFAW (International Fund for Animal Welfare, August 16, 2021), <https://www.ifaw.org/journal/what-is-ivory>.

⁹⁴ Elaine Larson, "The History of the Ivory Trade | National Geographic Society," National Geographic (National Geographic Society, September 27, 2022), <https://education.nationalgeographic.org/resource/history-ivory-trade>.

⁹⁵ Ibid.

⁹⁶ The Associated Press, "Elephants Have Evolved to Be Tuskless because of Ivory Poaching, a Study Finds," NPR, October 22, 2021, sec. Animals, <https://www.npr.org/2021/10/22/1048336907/elephants-tuskless-ivory-poaching-africa>.

to the animal, and new studies on manufacturing biosynthetic horns have conservationists hypothesizing that it may create an opportunity for poachers to pass off contraband as “fake” and therefore legal.⁹⁷

Past UN Action

The UN holds the Convention on International Trade in Endangered Species of Wildlife Fauna and Flora, which controls the trade of animals and plants to prevent diminishing their population.⁹⁸ The UN penalizes illegal trade, confiscates animal parts that are poached, and works with countries to improve legislation around wildlife protection.⁹⁹ The UN also has a Wild for Life program that uses social media to raise awareness about poaching and its impacts.¹⁰⁰

Possible Solutions

The African Wildlife Foundation has implemented a “three-pronged strategy — Stop the Killing, Stop the Trafficking, and Stop the Demand.”¹⁰¹ The results reveal that this strategy is helpful.¹⁰² 11 of the 14 elephant populations involved are stable or increasing.¹⁰³ In the 50,000 km² in Kenya, the elephant population grew 14% from 2014-2017.¹⁰⁴ Elephant poaching across the African continent has been on a consistent decline throughout the past three years.¹⁰⁵ Thus, delegations may consider taking inspiration from the AWF’s strategy, and they may also seek to form alliances with organizations such as the AWF.

Cultural Significance of Land (Indigenous)

Many Indigenous languages are inspired by the land around them. For instance, the Inuit “have more than fifty terms for snow”, with each focusing on a specific situation/type of snow.¹⁰⁶ Many United Nations organizations, including, but not limited to UNESCO and UNPFII have highlighted the severity of protecting Indigenous Languages.¹⁰⁷ Therefore, alongside animals and resources, culture is at risk due to climate change.

Going back to the deforestation that was discussed earlier in this section, Greenpeace,

⁹⁷ Ibid.

⁹⁸ “Three Ways the United Nations Environment Programme Works to Address Illegal Trade in Wildlife,” UNEP, February 17, 2020, <https://www.unep.org/news-and-stories/story/three-ways-united-nations-environment-programme-works-address-illegal-trade>.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

¹⁰¹ Philip Muruthi, “How to Win the Fight to Save Africa’s Elephants and Rhinos,” African Wildlife Foundation (African Wildlife Foundation, July 6, 2018), <https://www.awf.org/blog/how-win-fight-save-africas-elephants-and-rhinos>.

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ UNESCO, “Indigenous Languages: Knowledge and Hope,” UNESCO (UNESCO, January 10, 2019), <https://en.unesco.org/courier/2019-1/indigenous-languages-knowledge-and-hope>.

¹⁰⁷ Ibid.

an NGO focused on spreading awareness about environmental issues have revealed:

“Evidence shows that when Indigenous Peoples’ rights to traditional lands and self-determination are respected, forests stay standing. But too often, corporations and governments overlook or intentionally trample the rights of Indigenous Peoples. For example, the Waswanipi Cree of Northern Quebec are fighting to keep the last wild forests on their traditional land intact, and the Mundurucu people of the Amazon are battling a proposed mega-dam that threatens rainforests, a river, and their way of life.”¹⁰⁸

Past UN Action

1993: The UNGA proclaimed the International Year of the World’s Indigenous Peoples with the aim of fostering relations between Indigenous Peoples, States, and the international community.¹⁰⁹

1994 - 2004: International Decade of World’s Indigenous Peoples Proclaimed by the UNGA to “to increase the United Nations’ commitment to promoting and protecting the rights of indigenous peoples worldwide.”¹¹⁰

2000: UNPFII is established.¹¹¹

2001: Special Rapporteur on the Rights of Indigenous Peoples is founded.¹¹²

2007: UN adopts UNDRIP.¹¹³

2016: UNPFII expressed concern regarding the threats faced by Indigenous languages. In response, the United Nations Department of Economic and Social Affairs declared 2019 the International Year of Indigenous Languages via resolution 71/178.¹¹⁴

2022-2023: Proclaimed the International Decade of Indigenous Languages by UNGA¹¹⁵

Possible Solutions

Global reconciliation, in other words, ameliorating relationships with and quality of life for Indigenous Peoples worldwide, is a goal the UNPFII is working towards. Delegates may consider partnering with this UN body to benefit from the positive economic effects associated with honouring Indigenous rights.

¹⁰⁸ Greenpeace, “Solutions to Deforestation,” Greenpeace USA (Greenpeace USA, 2016), <https://www.greenpeace.org/usa/forests/solutions-to-deforestation/>.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

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Questions to Consider

- What aspects of environmental degradation are occurring in your country?
- Which aspects are you affected by even though you may not be perpetrating the degradation?
- What aspects of environmental degradation is your country working to resolve?
- What Indigenous Groups are found within your nation and how is the government working to foster relations with them?
- How can Indigenous traditions contribute to reducing environmental degradation in your country?

Topic B: Resource Scarcity

Scarcity is commonly associated with a lack of resources. Consequently, it is often perceived that scarcity solely exists in developing nations. However, scarcity is also “a function of unlimited wants.”¹¹⁶ Therefore, while it may look different, scarcity persists in developed nations as well as developing nations. Scarcity from developed nations often stems from unlimited wants rather than a lack of resources.¹¹⁷ Scarcity exists in many forms with food, water, plant, space, and natural resource scarcities being the preeminent types.

Food Scarcity

According to the World Trade Organization, we have enough food on the planet to ensure everyone receives their daily recommended amount of calories. However, despite this, individuals around the world still face hunger.¹¹⁸ In 2020, the number of severely food insecure individuals rose 148 million to 928 million people.¹¹⁹

Food scarcity is sometimes caused by the lack of land suitable to grow crops. For instance, in Japan, there is a lack of arable land to grow rice. To resolve this crisis, the Japanese government has begun providing subsidies and incentives for farmers to grow rice¹²⁰; delegates may consider implementing something similar within their nations. Conflict, climate change, the COVID-19 pandemic, and hyperinflation are also factors that result in the increase in worldwide hunger. Conflict is the greatest cause of hunger on a global scale, as it “is responsible for 65% of the people facing acute food insecurity”.¹²¹ Climate change, through changing weather patterns, also results in increased food insecurity. For example, increasing temperature extremes and changes in amounts of precipitation can decrease the yield of crops. Also, increasing ozone pollution can decrease levels of photosynthesis in plants.¹²² Further, COVID-19 caused an increase in global inequality, and many poor families found themselves unable to afford food. Furthermore, lockdowns impacted food distribution and halted school meal programs that many children needed.¹²³ Hyperinflation has also caused an increase in food prices, leading to an increase of 148 million food insecure people from 2019 to 2020.¹²⁴

¹¹⁶ David A Mayer and Melanie Fox, *Economics 101 : From Consumer Behavior to Competitive Markets-Everything You Need to Know about Economics* (Avon, Massachusetts: Adams Media, 2016).

¹¹⁷ Ibid.

¹¹⁸ Jaclyn Tan, “Global Food Scarcity: Definition, Distribution, Roadblocks,” UNL Institute of Agriculture and Resources (University of Nebraska-Lincoln, 2018), <https://sdn.unl.edu/global-food-scarcity>.

¹¹⁹ “Global Food Crisis,” Plan International (Plan International, 2022), <https://plan-international.org/emergencies/global-food-crisis/>.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Rebekka Schnitter and Peter Berry, “The Climate Change, Food Security and Human Health Nexus in Canada: A Framework to Protect Population Health,” *International Journal of Environmental Research and Public Health* 16, no. 14 (July 16, 2019): 2531, <https://doi.org/10.3390/ijerph16142531>.

¹²³ Ibid.

¹²⁴ Ibid.

Case Study: Yemen's Food Shortage

Today, 23 million people in Yemen are experiencing food scarcity. Over a third of families don't have adequate diets, and the rate of child malnutrition is the highest worldwide¹²⁵. The cause of the crisis stems from the war—furthermore, the country heavily depends on commercial imports, which have declined because of conflicts.¹²⁶

Water Scarcity

Given that the majority of our planet is composed of water, our water supply may be taken for granted. While 70% of Earth is covered by water, only 3% is freshwater, making only 3% immediately usable.¹²⁷ Thus, “1.1 billion people worldwide lack access to water”.¹²⁸ Without water, these areas also lack access to proper sanitation, with 2.4 billion individuals being “exposed to diseases, such as cholera and typhoid fever” alongside “other water-borne illnesses”.¹²⁹ Freshwater scarcity results in two million fatalities yearly at the hands of diarrheal diseases.¹³⁰

Not only is there naturally limited freshwater, but human activity has begun to destroy many freshwater systems.¹³¹ Water bodies are being polluted and “more than half the world's wetlands have disappeared”.¹³² Similarly to deforestation, the greatest cause of water scarcity is agriculture. “At the current consumption rate ... by 2025, two-thirds of the world's population may face water shortages.”¹³³ Therefore, it is of utmost significance for the delegations at this convention of PASTAA to implement solutions to protect the world's freshwater.

Case Study: Flint Water Crisis

Flint, Michigan began facing a water crisis in 2014. The crisis began when “the city switched its drinking water supply from Detroit's system to the Flint River in a cost-saving move”.¹³⁴ Inadequate water treatment and testing resulted in chronic health issues emerging within the population. Moreover, the presence of lead in pipes resulted in blood lead levels in children doubling or even tripling, and lead exposure has long been linked to madness and

¹²⁵ World Food Programme, “Yemen Emergency,” World Food Programme (World Food Programme, September 6, 2019), <https://www.wfp.org/emergencies/yemen-emergency>.

¹²⁶ Ibid.

¹²⁷ World Wildlife Fund, “Water Scarcity | Threats | WWF,” WWF (World Wildlife Fund, 2022), <https://www.worldwildlife.org/threats/water-scarcity>.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Melissa Denchak, “Flint Water Crisis: Everything You Need to Know,” NRDC (National Resource Defense Council, 2018), <https://www.nrdc.org/stories/flint-water-crisis-everything-you-need-know>.

death. Nonetheless, Flint's government officials continued to ignore this issue.¹³⁵

Not only does this crisis highlight the issues of placing cost over health, but it also is a preeminent display of how humans are polluting the little fresh water we do have. Flint, is the birthplace of General Motors, but GM is not the only industrial company based in Flint.¹³⁶ With many local industries sprouting along the Flint River's shores, the river "served as an unofficial waste disposal site".¹³⁷ The amount and toxicity of this waste is best showcased by rumours that the Flint River has "caught fire—twice."¹³⁸

When residents of Flint went to court, a federal judge sided with them. A major settlement resulted in the city replacing thousands of lead pipes via state funding, guaranteed water testing, faucet filter installations, education programs, and free bottled water throughout the summer.¹³⁹ In April 2018, around 4 years after the crisis began, Flint returned to having somewhat safe water given that the lead levels were below the federal action level.¹⁴⁰ That being said, thousands of homes in Flint are still getting water from lead pipes. While the city implemented the FAST Start program to replace lead pipes, the progress was not fast enough, and the people of Flint have once again returned to court.¹⁴¹

Case Study: Water Scarcity in Southern Europe

The Po Valley in Italy has been facing severe drought, and this occurrence was "on the front pages of European newspapers" throughout the summer of 2022.¹⁴² While water scarcity and drought are correlated, it is important to recognize that other factors also contribute to the lack of water. While we may deem water scarcity that takes place during a drought a temporary crisis, it is in fact "a structural imbalance between available water and demand".¹⁴³ In Southern Europe, the most significant user of freshwater is agriculture, with it accounting for 50% of Italy's use and 80% of Greece's freshwater use.

That being said, agriculture is not necessarily solely to blame for water scarcity in Southern Europe. There are four main reasons for water scarcity in Europe. First, there is a greater demand for freshwater than there is water available. More water is needed during "warmer months due to increased tourism and agricultural production".¹⁴⁴ Wasted food and leakages only add to this factor. Pollution resulting from human activities is another cause of water scarcity; water pollutants are not sufficiently removed by water treatment plants due to

¹³⁵ Ibid.

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Eva Enyedi, "Water Scarcity in Southern Europe," Climate-KIC (European Union, August 4, 2022), <https://www.climate-kic.org/opinion/water-scarcity-in-southern-europe-problems-and-solutions/>.

¹⁴³ Ibid.

¹⁴⁴ Ibid.

technical difficulties, high costs, or lax regulation.¹⁴⁵ Another reason for the scarcity in Southern Europe is an unwillingness to apply solutions that have been discovered via recent scientific breakthroughs. AI and remote sensing may allow for improved water treatment; however, a lack of skills and guidance prevents businesses from employing these remedies.¹⁴⁶ Finally, water is being treated as a cheap and abundant resource in Southern Europe, whilst the reality is that freshwater is scarce and expensive to treat. The disregard for water's value results in a "lack of economic incentives for saving water".¹⁴⁷

Delegates should brainstorm solutions based on these causes, and may use this framework to explore the causes of water scarcity in other nations worldwide.

Case Study: Fresh Water Crisis in Canada's Indigenous Reserves

Water is a necessity for all humans, and yet dozens of Indigenous communities in Canada lack access to safe drinking water. Because of the risk of waterborne diseases and other contaminants, and a lack of treatment infrastructure due to the remote location of over 600 communities, many Indigenous people instead rely on bottled water.¹⁴⁸ The cost of water treatment plants has led to the Canadian government being unwilling to fund projects, but as bathing water turns yellow and residents battle skin and gastrointestinal conditions because of the unsafe water, many have called for the federal government to take action.¹⁴⁹

Case Study: South Africa

South Africa receives only 497 millimeters of precipitation a year, which is 50% less than the global average.¹⁵⁰ This lack of rain is one of the reasons for the country's water scarcity.¹⁵¹ Given that coal has to be washed, the coal mining industry has contaminated South Africa's water. Consequently, South Africans also experience problems with accessibility and even distribution of water—many families have to travel hundreds of kilometers to reservoirs that have safe drinking water.¹⁵² This water scarcity crisis in South Africa has led to numerous issues with health, education, and the country's economic development.¹⁵³ Thus, this is a pressing issue delegations in PASTAA must urgently address.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

¹⁴⁸ Leyland Cecco, "Dozens of Canada's First Nations Lack Drinking Water: 'Unacceptable in a Country so Rich,'" The Guardian (Guardian News & Media Limited, April 30, 2021), <https://www.theguardian.com/world/2021/apr/30/canada-first-nations-justin-trudeau-drinking-water>

¹⁴⁹ Ibid.

¹⁵⁰ Joan Igamba, "Water Crisis in South Africa," Greenpeace Africa, July 5, 2022, <https://www.greenpeace.org/africa/en/blogs/51757/water-crisis-in-south-africa/#:~:text=South%20Africa%20is%20already%20a>.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

Plant Scarcity

Plant scarcity is the loss of crops, forests, or feed for animals due to disasters or environmental crises.¹⁵⁴ The relationship between plants and nature is such that if one is disrupted, the consequences will spread throughout cities and countries.¹⁵⁵ For example, water scarcity can cause plant scarcity, because plants will not be able to get the nutrition needed. This, in turn, can affect animals and humans.¹⁵⁶

Case Study: South America's Dying Crops

Because of climate change, a record number of droughts have swept through South America, wiping out farmers' crops and killing agribusinesses.¹⁵⁷ In Buenos Aires, two consecutive years of drought have reduced some farmers' yields by over 65%.¹⁵⁸ Droughts are not the only problem, as wildfires in Paraguay have destroyed forests, which has led to a host of problems such as reduced oxygen levels and less stability in the soil and water.¹⁵⁹ Animals are also suffering from plant scarcity, as without food, many cattle ranchers are facing the possibility of their cows starving. Plants are essential for the economy and provide food, oxygen, and more to communities.¹⁶⁰

Space Scarcity

The human population is growing at an incredible rate, which is raising concerns regarding the amount of space on Earth. The question must be raised, can our planet house the growing population?

The United Nations predicted that by 2100, the world population will rise to 11.2 billion.¹⁶¹ The planet is struggling to house our current population of 7.9 billion.¹⁶² Thus, PASTAA must formulate a solution to address current space scarcity and avoid future scarcity.

Case Study: Powys, Wales - Housing Turning Unaffordable Due to Space Scarcity

¹⁵⁴ Kelly, "The Main Effects of Water Scarcity on Plants," Fondation Rivières, May 2, 2017, <http://www.fondation-rivieres.org/scarcity-effects-plants.htm>.

¹⁵⁵ Ibid.

¹⁵⁶ Kelly, "The Main Effects of Water Scarcity on Plants," Fondation Rivières, May 2, 2017, <http://www.fondation-rivieres.org/scarcity-effects-plants.htm>.

¹⁵⁷ Diego Laje, Anthony Faiola, and Ana Vanessa Herrero, "Dying Crops, Spiking Energy Bills, Showers Once a Week. In South America, the Climate Future Has Arrived," Washington Post, September 24, 2021, <https://www.washingtonpost.com/world/2021/09/24/argentina-brazil-south-america-drought/>.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid.

¹⁶¹ Rachel Nuwer, "Is the World Running out of Space?," BBC (BBC, September 1, 2015), <https://www.bbc.com/future/article/20150901-is-the-world-running-out-of-space>.

¹⁶² United Nations, "World Population Day | July 11," United Nations (United Nations, 2021), <https://www.un.org/en/observances/world-population-day>.

The community of Powys, Wales, is facing a shortage of land available for housing development that may lead to a decline in future economic and social activity. Not enough land is being submitted through the Local Development Plan, and hence there is not enough time to analyze whether that land will be a suitable choice to be included in the final LDP in 2026. This issue stems from higher demand in Powys than there is supply - in other words, space scarcity; there are more businesses and individuals seeking land than there is available space.¹⁶³ Delegates should work to examine if a similar situation is occurring in their countries.

Case Study: Bangladesh - Lack of Land to Implement Solar Power

Bangladesh attempted to move towards renewable energy. However, space scarcity has posed a hurdle. This case study highlights that space scarcity is not only about physically housing the human population, but it also affects the ability to power the human lifestyle. Bangladesh's attempt to install solar home systems across the country is hindered by a lack of land available to build large-scale plants. In 2001, the country passed a national land use policy that prohibited the use of agricultural land for other purposes. As a result, building the Mymensingh solar park, one of eight in Bangladesh, took almost two years. Citizens have been urging the government to lessen the inflexible approval process to construct plants and solar farms.¹⁶⁴

Case Study: Lack of Space to Store Trucks

Not only is space scarcity creating a lack of space for homes, but it is also affecting trade. Many consumer goods are transported via trucks. However, America is currently facing a shortage of places to store these vehicles.¹⁶⁵ This space scarcity is also having an effect on the economy, with prices of truck parking spaces increasing, as their marginal benefit increases.¹⁶⁶ Consumers are demanding a higher amount of goods, but transportation is failing to catch up due to a lack of space.¹⁶⁷ As a solution, some companies have created self-driving trucks, which drive on highways, before transferring to human-driven trucks in the city. However, even these trucks require space to be stored.¹⁶⁸ Thus, it is critical that delegates consider the effects of space scarcity on the economy and consumer goods production/delivery alongside its effects on housing and the environment.

¹⁶³ "Lack of Land Could Affect Affordable and Social Housing," mynewtown (MYTOWNMEDIA, August 26, 2022), <https://www.mynewtown.co.uk/viewernews/ArticleId/19239>.

¹⁶⁴ Md Tamid Zami, "In Bangladesh, Solar Power Brings Work, but Land Shortage Slows Growth," Gulf Times (Gulf Times Commercial Press, August 27, 2022), <http://www.gulf-times.com/story/723293/In-Bangladesh-solar-power-brings-work-but-land-shortage-slows-growth>.

¹⁶⁵ Konrad Putzier, "Self-Driving Trucks Start to Propel Land Rush near Major Cities," Wall Street Journal, February 28, 2022, sec. Real Estate, <https://www.wsj.com/articles/self-driving-trucks-start-to-propel-land-rush-near-major-cities-11646053200>.

¹⁶⁶ Ibid.

¹⁶⁷ Ibid.

¹⁶⁸ Konrad Putzier, "Self-Driving Trucks Start to Propel Land Rush near Major Cities," Wall Street Journal, February 28, 2022, sec. Real Estate, <https://www.wsj.com/articles/self-driving-trucks-start-to-propel-land-rush-near-major-cities-11646053200>.

Natural Resource Scarcity

Natural resource scarcity occurs when the demand for a natural resource is greater than what is available. This can lead to a variety of detrimental effects, such as skyrocketing prices leading to inequality or the overexploitation of workers.¹⁶⁹

Case Study: Alberta's Finite Resources

Alberta has a massive amount of oil, coal, and gas deposits around the province, but they have been depleted by energy companies that extract fossil fuels through drilling and fracking.¹⁷⁰ The Canadian economy benefits massively from these resources, but the extraction has led to environmental problems. For example, high rates of water pollution, greenhouse-gas emissions, and depleted food sources for Indigenous communities have been reported.¹⁷¹ Alberta's resources are not infinite—a lower level of consumption and increased use of renewable resources are needed in order to preserve the finite resources in the province.¹⁷²

PAST UN Action

In 2016, FAO created a framework to cope with water scarcity considering the world's changing climate.¹⁷³ In addition, Sustainable Development Goal 6 focuses on global access to water. The UN releases a yearly report showcasing progress towards this goal.¹⁷⁴ The UN also holds a yearly Food Systems Summit to address problems in plant and food scarcity, such as how to help vulnerable communities around the world and ways to improve the processing and accessibility of food.¹⁷⁵ The UN's Global Resources Outlook 2019 Report outlines the unsustainable trends in natural resource consumption, and has found that the extraction of these resources causes 50% of greenhouse gas emissions. Furthermore, since 1970 extraction had tripled, which has led to a major scarcity in materials.¹⁷⁶ The UN calls for nations to reform their approach to natural resources in order to avoid scarcity and damage to the environment.¹⁷⁷

Possible Solutions

¹⁶⁹ "Resource Scarcity," Canadians for a Sustainable Society, accessed October 2, 2022, <https://sustainablesociety.com/environment/resource-scarcity#.YzYa9nbMK5c>.

¹⁷⁰ Pawlowska-Mainville, Agnes, and J.d. Chapman. "Natural Resources in Alberta." The Canadian Encyclopedia. Historica Canada. Article published September 23, 2019; Last Edited September 23, 2019.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ UN Water, "Water Scarcity," UN-Water (United Nations), accessed September 9, 2022, <https://www.unwater.org/water-facts/water-scarcity>.

¹⁷⁴ UN Water, "Summary Progress Update 2021: SDG 6 — Water and Sanitation for All," UN-Water (United Nations, 2021), <https://www.unwater.org/publications/summary-progress-update-2021-sdg-6-water-and-sanitation-all>.

¹⁷⁵ United Nations, "About the Summit," United Nations, accessed October 2, 2022, <https://www.un.org/en/food-systems-summit/about>.

¹⁷⁶ UN Environment Programme, "We're Gobbling up the Earth's Resources at an Unsustainable Rate," UN Environment Programme (United Nations, April 3, 2019), <https://www.unep.org/news-and-stories/story/were-gobbling-earths-resources-unsustainable-rate>.

¹⁷⁷ Ibid.

There are many NGOs working to tackle the food crisis, such as Action Against Hunger and The Hunger Project. Delegations may consider cooperating with these NGOs and allocating funding towards resolving global hunger.

Delegates may consider taking inspiration from the initiative that the World Bank has implemented in Yemen. The World Bank has begun rainwater as a solution to the extreme water scarcity faced by Yemen's population.¹⁷⁸ The delegations in PASTAA may consider partnering with the World Bank to implement a similar solution in their nations.

Delegates may also consider examining Spain's new system to resolve the water crises in Southern Europe. "The Entity for Sanitation and Treatment in" Murcia, Spain, "reuses virtually all the wastewater it treats for irrigation and replenishing aquifers as an effective measure to save water and energy."¹⁷⁹ Delegates may consider sponsoring a resolution implementing such a system in other nations worldwide.

With regard to natural resource scarcity, "Unico van Kooten European, secretary for the Dutch Waste Management Association, pointed to the growing need for waste not to be landfilled but recycled to ensure that we continue to produce the most valuable resource – The Seventh Resource – to help mitigate the risk of scarcity of raw materials."¹⁸⁰ The Dias would look favourably upon delegates exploring this route, and promoting recycling around the world.

Suggested Readings

Food and Agriculture Organization of the United Nations. "WASAG: The Global Framework on Water Scarcity in Agriculture." *Food and Agriculture Organization of the United Nations*, 2020. <https://www.fao.org/3/i5604e/i5604e.pdf>.

Questions to Consider

- How does plant scarcity affect healthcare (ie. some crops are needed for medicine)?
- How can we reduce natural resource scarcity while also keeping space scarcity in mind?
- What scarcities is your country causing and/or affected by?
- What scarcities is your country working to resolve?

¹⁷⁸ Ibid.

¹⁷⁹ Ibid.

¹⁸⁰ Michael Brunn, "Climate Change and Resource Scarcity a Threat to National Security," RECYCLING magazine (DETAIL Business Information GmbH, August 11, 2022), <https://www.recycling-magazine.com/2022/08/11/climate-change-and-resource-scarcity-a-threat-to-national-security/>.

Tips for Research, Writing Position Papers, and the Conference:¹⁸¹

Read the background guide!

While we unanimously agree it can be an intimidating document, it is ultimately a resource that helps you and gets you started. The more you relate your work to the background guide, the more on track you will be to making productive working papers and speeches!

Use credible sources when researching!

We will be checking! These include scholarly articles, peer-reviewed papers, anecdotal work, UN documents and resolutions, legal frameworks and legislations, etc. Do not feel limited by what you can and cannot research, but ensure that they are trustworthy and accurate! If you're not sure, email us and ask!

Position papers should be no more than two pages.

Be concise when outlining your country's position.

Adhere to your country's foreign policy in your position paper and in debate.

You are representing a unique nation with your own sets of values, beliefs, and political ideologies. The more you stay true to your character, the more productive and healthy debate will follow. As such, be careful who you form blocs with - they might disagree and that is okay!

Always keep equity in mind!

We are dealing with some sensitive topics, so please be mindful about how you approach your country's political stance, even if it is relatively controversial. UTMUN strives to ensure the comfort of all Delegates, and you play a large part in that!

Engagement is key!!

Model UN is only exciting when you talk, pass notes, form blocs, participate in writing working papers, debate, etc. As intriguing as the topics may be, we still rely on you to make the conference lively, don't let us down!

Trust your dais.

We are experienced and heavily-trained Model UN staff. If there is anything we can do, during the conference or otherwise, please let us know! If you are new to Model UN, please reach out to us and let us know how we can improve your UTMUN experience.

Don't hesitate to seek clarification! Please feel free to reach out to pastaa@utmun.org with any questions about these tips, the background guide content, or anything else relating to the conference :)

¹⁸¹ Inspired by: Atique, Soban, et. al. "Sixth Committee: Legal Background Guide." UTMUN 2022. February 2022.

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