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EKIN SNY MUN BACKGROUND GUIDE

Committee: UNEP

Topic: Protecting Biodiversity in Polar Regions



ekinjmun@gmail.com



www.ekinjmun.org

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Welcome Speeches/Letters from the Chairboard

Esteemed Delegates,

Welcome to the EKIN Junior Model United Nations Conference! My name is Saanvi Thakur and I am the Chair of the United Nations Environment Programme (UNEP) at EKINJMUN 2025.

As Chair of this committee, I am incredibly excited and honored to hear your innovative and unique solutions to our agenda item: Protecting Biodiversity in Polar Regions. Throughout our sessions, we will explore and debate different facets of this topic. I am eager to see how you will take on critical global issues and address how different frameworks can be improved to better support polar regions.

Please utilize this background guide to understand the committee's focus on polar regions and to consider possible solutions, focusing on how to create a lasting impact.

During the conference or throughout the committee sessions, please do not hesitate to contact my co-chair and me with any questions or concerns. I am looking forward to meeting you all soon and learning more about your creative recommendations to protect biodiversity in polar regions!

Warm regards,

Saanvi Thakur

Chair, UNEP Committee

■ ■ Esteemed Delegates,

■ ■ My name is Beren Gülkökan and I am the Co-Chair of the United Nations Environment Programme (UNEP) at EKINJMUN 2025. I extend a sincere welcome to you all to our committee at the upcoming EKINJMUN Conference.

■ ■ As the Co-Chair of this committee, I am more than honored to collaborate with each of you to address our agenda item: Protecting Biodiversity in Polar Regions. Throughout our sessions, we will explore various perspectives regarding this topic. I am sure that by the end of the conference, innovative and feasible solutions will be addressed.

Please take the time to familiarize yourself with this study guide provided to you.

As the Co-Chair of the UNEP committee, I am here to support you throughout the conference. During the conference or during the sessions, if you seek guidance please do not hesitate to reach out to me or my fellow Chair. I am looking forward to sharing this fruitful environment with each of you and to having a productive and fulfilling conference experience.

Warm regards,

Beren Gülkökan

Co-Chair, UNEP Committee



The United Nations Environment Programme (UNEP)



The United Nations Environment Programme (UNEP) was established in Stockholm in June 1972. It is the leader of environmental authorization in the United Nations system. UNEP's main aim is to strengthen environmental standards and practices while playing a crucial role in implementing efficient environmental obligations, especially on global levels. It inspires nations and individuals to enhance their quality of life while keeping the planet safe and non-polluted for future generations.

UNEP focuses on the world's most significant environmental challenges such as climate change, biodiversity loss, and pollution. While encouraging collaboration between governments and the private sector, UNEP also strives to strengthen ties between civil society and UN entities. The organization aims to implement sustainable economic practices, improve environmental governance, and support transitioning to low-carbon, resource-efficient economies. To this end, UNEP provides various scientific research and policy guidance to its 193 Member States. UNEP additionally works day and night to achieve the Sustainable Development Goals and to create a harmonious relationship between humanity and nature.

Terms and Concepts



Polar regions: regions of the Earth that surround the North and South Poles such as the Arctic, which is located in the Northern Polar Region.

Arctic: this is the northmost area of the Earth, specifically corresponding to regions around the North Pole where there are distinctive polar climate conditions and environment.

Arctic Squeeze: a result of the effects of climate change on Arctic species, altering species interactions with decreasing or increasing populations, which causes shifts in the ecosystem.

Glaciation: the process of ice sheets, or glaciers, moving across the Earth's surface and changing its landscape.



Protecting Biodiversity in Polar Regions

Background

The polar regions are characterized by their extreme cold and unique ecosystems that regulate global climate and ocean circulation patterns, encompassing the Arctic Ocean and a portion of surrounding land masses. The conditions of the polar region are usually extreme with fluctuations between summer and winter temperatures. The region has permanent snow and ice where there are also long periods of marine sedimentation, adding to the historic biodiversity of the region.

Protecting biodiversity in the polar regions has become a key issue over the years, as there have been extreme temperature shifts in the Arctic regions. In addition to factors such as rising arctic shipping and the threat to fragile habitats, the protection of the polar regions has been an area of focus for decades as global temperatures rise. The need for this protection of biodiversity can be credited to the climate crisis, which has been rapidly worsening as extreme weather events have increased pressures on various Arctic species. Indeed, the decline in snow and ice cover has created an arctic squeeze, which has altered these species' growth.

The climate crisis has developed as the causes of climate change have not been controlled, especially by countries that are large contributors to fossil fuel development and usage. Over 75 percent of global greenhouse gas emissions can be credited to fossil fuels, posing risks to animal species across the world.

In the current day, the polar region has experienced irregular levels of glaciation. Though vast areas of the Arctic are meant to support permanent ice year-round, warmer temperatures and limited snowfalls have led to a decrease in support for permanent ice on the terrain. In the last decade, there have been record-high temperatures, and nearly all land areas are seeing more hot days and heat waves. In the Arctic and polar regions, temperatures have warmed at least twice as fast as the global average.



Extreme Temperature Shifts in the Arctic



According to the World Wide Fund for Nature: “Over the past four decades, Arctic temperatures have surged nearly four times faster than the global average.”

The Arctic is experiencing a dramatic change in sea ice, shrinking by 12.2 percent each decade due to warming temperatures occurring through climate change. As the ice becomes thinner and fragile, it is more likely to melt, increasing the loss of staminal ice cover. It is predicted that the Arctic could face a complete loss of sea ice as early as the 2030s, although the 2050s are considered more likely. This loss creates a significant threat to species dependent on the ice, such as polar bears, narwhals, and walruses. The threat poses a huge effect on fish too.

Fish populations are shifting to new areas, and Southern whale species (such as orcas) are moving further North in search of food. Unfortunately, even under the best-case climate scenarios, the damage to the Arctic ecosystem is expected to be permanent for centuries, or even millennia.

Rising Arctic Shipping and Industries Threatening Fragile Habitats



As the Arctic’s sea ice continues to melt, global interest in its resources increases, notably through the expansion of industries like oil and gas extraction, shipping, and fisheries.

The development of roads and pipelines is destroying the ecosystem and impacting water systems in the region. Meanwhile, the rise in shipping traffic is also a significant environmental threat, triggering issues such as underwater noise pollution, black carbon emissions, and the significantly rising risk of oil spills.

Unsustainable fishing practices further intensify these pressures, raising the challenge of balancing economic growth with environmental protection. These industrial activities are threatening Arctic biodiversity by disrupting habitats, displacing wildlife, and damaging feeding grounds.



Arctic Governance and Existing Dilemmas

As the Arctic region faces increasing environmental challenges, a variety of governance issues arise focused on the need for oversight and regulation. Increased effects of climate change have shifted resource availability in the Arctic, which is why Arctic governance plays a critical role in recognizing existing legal frameworks and protecting Arctic communities.


The Arctic Council is a vital part of governance in the Arctic. It consists of 8 Arctic states: Canada, Denmark (Greenland), Finland, Iceland, Norway, Sweden, Russia, and the United States of America (Alaska). It focuses on the representation of indigenous communities as well as policy coordination to protect the Arctic environment. However, the council is not legally binding, which means that there is a great inability to enforce regulations that are meant to protect the biodiversity of the Arctic. Building on this, there are also growing sovereignty and territorial claims that have led to greater geopolitical tensions in the region. For example, countries such as Russia, Denmark, and Norway have submitted claims to gain access to resource-rich areas in the Arctic, further demonstrating the need to focus on resource protection within Arctic governance.

In addition to environmental governance in the Arctic, there is a greater necessity to recognize and uplift indigenous rights and representation within the Arctic. Indigenous communities, including, but not limited to, the Inuit and Saami, have historically lived in the Arctic regions and rely on their environment for food and other resources. Implementing more frameworks aimed at protecting indigenous people and their rights is essential, particularly as greater foreign interests continue to work to gain increased access to resources.

Mapping Biodiversity in Polar Regions

One of the most significant aspects of protecting biodiversity in polar regions is understanding the distribution of ecosystems and species and their health within these areas. As such, mapping biodiversity is a significant factor in identifying key habitats, tracking the movement of endangered species, and assessing the health of ecosystems that are threatened by climate change and human activity.





Due to their extreme climatic conditions, polar regions have been difficult to monitor in detail. Nonetheless, developments in technology, such as satellite technology, have allowed for more comprehensive and accurate mapping of polar biodiversity.

Some key points to consider:

- Understanding where key species live and breed, such as polar bears, walruses, and various fish species, makes it easier to track any abnormalities. Mapping these habitats ensures that policymakers can focus their efforts on the most ecologically sensitive areas, such as breeding grounds, feeding zones, and migration routes.
- Continuously monitoring habitat conditions makes it easier for scientists to detect changes in species populations or shifts in ecosystems caused by factors such as rising temperatures. This data helps determine which species are most vulnerable to the effects of climate change and other human activities.
- Some examples of industrial activities that are impacting local ecosystems in the polar regions include the increase in oil extraction, mining, shipping, and fishing. By comparing pre-development and post-development biodiversity data, scientists or authorized experts can evaluate the effectiveness of environmental regulations and adjust them as needed.



Existing Environmental Protections

Both parts of the polar regions — the Arctic and Antarctic — are protected by various types of international agreements as well as national laws that aim to conserve the biodiversity of the region.

In the mid-1990s, the Antarctic Treaty was signed by 56 countries and set Antarctica as a scientific preserve. In doing so, the treaty banned military activity in Antarctica and ensured the freedom of scientific investigation in it, allowing scientists to continue research on polar regions without interference.





The Protocol on Environmental Protection to the Antarctic Treaty built upon the Antarctic Treaty, further protecting the biodiversity of the polar region. After banning mining and resource exploitation conducted by companies and governments in Antarctica, human activities in the polar region were required to undergo environmental impact assessments (EIAs). These EIAs are often completed by hired consulting groups that work in partnership with indigenous communities in the region and are overseen by the Arctic Council's Sustainable Development Working Group.

More recently, the International Maritime Organization (IMO) Code for Ships Operating in Polar Waters, or IMO Polar Code for short, passed in 2017, regulates shipping in polar waters and aims to limit the environmental damage caused by mass transportation of goods. The code also sets safety and pollution standards for the polar regions, further mitigating the higher pollution levels caused by increased ship operation in the region.

Additionally, the International Maritime Organization implemented the Heavy Fuel Oil (HFO) Ban in Arctic Waters, banning the usage and transportation of heavy fuel oil in Arctic waters. This ban was enacted in July 2024 and aims to reduce the risk of oil spills and limit the risk of environmental damage. Increased shipping activities in the Arctic have created a greater push to preserve biodiversity in the polar regions, emphasizing the establishment of marine protected areas.

Recommendations for Creating a Resolution

Considering all the issues mentioned, it is crucial to understand each issue efficiently in order to provide a valid and feasible resolution. Delegates should consider global warming and climate change and their effect on biodiversity in polar regions, as global warming and climate change are perhaps the most threatening occurrences for the preservation of biodiversity in polar regions.

Delegates should also consider existing frameworks that address climate change in polar regions and what kinds of effective reforms would work best in mitigating immediate threats to biodiversity.

Delegates should additionally remember that global warming levels and the effects of climate change are variable, and possible resolutions on the topic should be implemented accordingly.



Questions to Consider

1. What kinds of legislative frameworks exist that address environmental degradation in the polar regions? How can these frameworks be modified or improved to address current-day conditions that species face?
2. How do global interests in the polar region's natural resources influence the kinds of regulations that are put in place for shipping and transportation in polar regions? How can these interests and influences be addressed to improve the protection of marine protected areas?
3. How have climate conditions shifted over the past decade? What does this say about the future of polar regions and what are some key factors that policymakers must focus on for greater efficiency?





RESEARCH AID

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"The Arctic and Antarctic - Natural Realms at the Poles," World Ocean Review 6, (2019), <https://worldoceanreview.com/en/wor-6/the-arctic-and-antarctic-natural-realms-at-the-poles/a-brief-history-of-the-polar-regions/#:~:text=The%20northern%20polar%20region%2C%20called%20the%20Arctic%2C,and%20areas%20of%20the%20surrounding%20Southern%20Ocean.>

2

Ned Allen Ostenso and Moira Dunbar, "Arctic," Encyclopedia Britannica, 6 March 2025, <https://www.britannica.com/place/Arctic>.

3

United Nations, "Climate Action: Causes and Effects of Climate Change," <https://www.un.org/en/climatechange/science/causes-effects-climate-change>.

4

World Wide Fund for Nature, "Biodiversity and Nature," <https://www.arcticwwf.org/our-priorities/biodiversity-and-nature/>.