UNITED NATIONS ENVIRONMENTAL PROGRAMME

Study Guide

Agenda:Deliberating Upon the Environmental Impact of Increased Human Activities and Control in the Arctic and Antarctic Regions, with Reference to the Antarctic Treaty System.

ANNUAL WORLD SUMMIT 2024

INDEX

Letter from the Executive Board

Dear Delegates,

The United Nations Environment Programme (UNEP) is the leading environmental authority in the United Nations system. UNEP uses its expertise to strengthen environmental standards and practices while helping implement environmental obligations at the country, regional and global levels

The topic at hand, "Deliberating Upon the Environmental Impact of Increased Human Activities and Control in the Arctic and Antarctic Regions, with Reference to the Antarctic Treaty System," is a pressing issue demanding international attention and collaborative solutions. As future leaders and guardians of the earth, it is our primary duty to protect and preserve the environment. Our existence is dependent on the health and harmony of the natural world, hence environmental conservation is a fundamental duty of humanity.

The study guide below gives an overview of the agenda and its key components , while the delegates can refer to the study guide. We expect all the delegates to do extensive research on the same to be well prepared for the conference. Remember to take all your information from trusted sources and not just from any website. Being well versed with your country's stance , diplomatic relations and foreign policies is key for any conference .

We encourage each delegate to dig deep and bring feasible and impactful solutions to the pressing matter that is the Impact of Increased Human Activities and Control in the Arctic and Antarctic Regions, with Reference to the Antarctic Treaty System. As delegates representing various nations, your insights and proposed solutions will play a crucial role in shaping our committee's resolutions. As change makers do not be afraid to voice your opinions as well as respect others' opinions.

Letter from the Executive Board

We will ensure that your time as delegates over the days of the conference will be memorable and truly a unique experience.
We are thrilled to have you as delegates of UNEP and look forward to a fruitful debate !

Best Regards ,
Chairperson: Raghav Agarwal
Vice-Chairperson: Aarya Kulkarni
Moderator: Hritika Shah
Rapporteur: Arjunvir Mahapatra

Introduction to Committee

The United Nations Environment Programme (UNEP) is the leading global environmental authority. UNEP's mission is to inspire, inform, and enable nations and people to improve their quality of life without compromising that of future generations. For over 50 years, UNEP has worked with governments, civil society, the private sector and UN entities to address humanity's most pressing environmental challenges - from restoring the ozone layer to protecting the world's seas and promoting a green, inclusive economy. UNEP's work is focused on helping countries transition to low-carbon and resource-efficient economies, strengthening environmental governance and law, safeguarding ecosystems, and providing evidence-based data to inform policy decisions. UNEP's mandate is to find solutions to the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste.

UNEP originated from the Stockholm Conference on the Human Environment and was officially formed on December 15 through the adoption of Resolution 2997. The first conference took place at the Palais des Nations in Geneva, but its official headquarters were later relocated to Nairobi, Kenya, following complete facility preparations. The organization initially had a staff of 300, including 100 professionals from various fields of study. The United States initially committed $40 million, with the remaining $60 million pledged by the other 57 member states.

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-According to the resolution, the Governing Council UNEP has several primary functions and responsibilities, including:

- Facilitating international cooperation in environmental matters and recommending policies as needed.
- Providing overarching policy guidance for directing and coordinating environmental programs across the United Nations system.
- Review periodic reports from the Executive Director on the implementation of environmental programs within the UN system.
- Monitoring the global environmental situation to ensure emerging environmental issues of international significance receive due attention from governments.
- Encouraging the involvement of relevant international scientific and professional communities in acquiring, assessing, and exchanging environmental knowledge and information, and assisting with technical aspects of environmental program formulation and implementation within the UN system.
- Continuously assessing the impact of national and international environmental policies on developing countries, as well as addressing the additional costs these countries may face in implementing environmental programs and projects, ensuring compatibility with their development plans and priorities. The council also reviews and approves the Environment Fund's resource utilisation program.

Environmental activities undertaken by UNEP encompass various areas, including:

- Early Warning and Assessment
- Environmental Policy Development and Legislation
- Technology, Industry, and Economics
- Environmental Policy Implementation
- Regional Cooperation
- Environmental Conventions
- Coordination of the Global Environment Facility

Introduction to Committee

From the very beginning of its establishment, the committee has achieved other
significant milestones, including sponsorship of solar loan programs, the implementation of Marshland projects in the Middle East, and the initiation of its International Environmental Education Program. UNEP has been particularly engaged in funding and executing initiatives focused on environmental development.

At the core of UNEP's work are the 17 Sustainable Development Goals (SDGs), unanimously adopted by all United Nations Member States in 2015. These goals serve as a collective blueprint for fostering peace and prosperity for both people and the planet, both now and in the future. The SDGs constitute an urgent appeal applicable to all countries, emphasising the interconnectedness of ending poverty and other deprivations with strategies that enhance health and education, reduce inequality, stimulate economic growth, and address climate change for sustainable ecosystems.

UNEP has restructured its operational framework into six key areas, guided by scientific evidence, its mandate, and input from global and regional forums. These areas are as follows:

1. CLIMATE CHANGE: UNEP takes a leadership role in assisting countries to incorporate climate change responses by emphasizing adaptation, mitigation, technology, and finance. It concentrates on facilitating the shift towards low-carbon societies, enhancing climate science understanding, promoting renewable energy development, and increasing public awareness.

Introduction to Committee

2. POST-CONFLICT AND DISASTER MANAGEMENT: UNEP conducts environmental evaluations in countries facing crises and aids in establishing improved environmental management legislative and institutional frameworks. Notable activities include environmental assessments in post-conflict zones like Afghanistan, Côte d'Ivoire, Lebanon, Nigeria, and Sudan.

\3. ECOSYSTEM MANAGEMENT: UNEP promotes ecosystem management and restoration aligned with sustainable development principles and advocates for the utilization of ecosystem services. The Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities is an exemplary initiative.

4. ENVIRONMENTAL GOVERNANCE: UNEP assists governments in establishing, implementing, and reinforcing the necessary processes, institutions, laws, policies, and programs to achieve sustainable development at various levels, while also integrating environmental concerns into development planning.

5. HARMFUL SUBSTANCES MANAGEMENT: UNEP endeavors to mitigate the environmental and human health impacts of harmful substances and hazardous waste. It engages in negotiations for global agreements, such as on mercury, and implements projects addressing mercury and the Strategic Approach to International Chemicals Management (SAICM) to reduce associated risks.

6. RESOURCE EFFICIENCY/SUSTAINABLE CONSUMPTION AND PRODUCTION: UNEP focuses on regional and global initiatives to promote environmentally friendly production, processing, and consumption of natural resources. The Marrakech Process, for instance, supports the development of a 10-year Framework of Programs on sustainable consumption and production.

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UNEP's primary goal is to catalyze action on the environment and promote solutions to the triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste.

UNEP's work helps humanity to live more in harmony with nature and move beyond the unsustainable consumption and production practices that are pushing the planet to breaking point. This is essential for realizing the Sustainable Development Goals, the world's blueprint for long-term peace and prosperity.

In the five decades since its founding, UNEP's convening power, rigorous scientific research and public advocacy have helped to boldly advance the global environmental agenda. In particular, UNEP has led efforts to counter climate change, protect endangered species, end deforestation, repair the hole in the ozone layer and phase out toxic leaded fuels.

Introduction to Agenda

The environmental impact of increased human activities in the Arctic and Antarctic regions is a significant concern, especially in the context of the Antarctic Treaty System (ATS).

The Antarctic Treaty, also known as the Antarctic Treaty System (ATS), is an international agreement that regulates relations with respect to Antarctica. Signed on December 1, 1959, and in force since June 23, 1961, the treaty designates Antarctica as a scientific preserve, ensures freedom of scientific investigation, and prohibits military activities on the continent. It defines Antarctica as all land and ice shelves south of 60°S latitude.

The treaty has 56 parties as of 2024, and its main goal is to maintain Antarctica for peaceful purposes, promoting scientific research and international cooperation. The ATS is a set of agreements that govern international relations in Antarctica, emphasising peaceful purposes, scientific research, and environmental protection. In simple terms, the ATS aims to preserve Antarctica as a scientific preserve, ensuring that human activities on the continent are conducted in a manner that minimises environmental harm.

With the rise in human engagement in these regions, there are growing concerns about the potential environmental consequences. In the Arctic, climate change is causing dramatic transformations, such as the melting of sea ice and changes in marine ecosystems, impacting economic activities and indigenous communities. Similarly, in Antarctica, human activities like tourism, scientific research, commercial fisheries, and whaling pose threats to wildlife and ecosystems.

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The ATS plays a crucial role in addressing these environmental challenges by promoting sustainable practices, protecting the fragile Antarctic environment, and coordinating international efforts to preserve the continent for future generations. It sets the framework for environmental governance in Antarctica, emphasising the need for long-term visions, genuine commitment, and global cooperation to safeguard the region's unique ecosystems.'

In essence, the ATS serves as a vital tool for managing human activities in Antarctica, ensuring that scientific research and other endeavours are conducted responsibly to minimize negative impacts on the environment. By upholding the principles of the treaty, countries can work together to protect the pristine Antarctic environment and promote sustainable practices in the face of increasing human presence and activities in both the Arctic and Antarctic regions.

What do human activities comprise in this context?
Human activities include scientific research, tourism, fishing, shipping, mineral exploration, and military operations.

What is scientific research?
Scientific research is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. It involves the creative and systematic work undertaken to increase the stock of knowledge and devise new applications of available knowledge.

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It is classified into three main types:

- Basic research: Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- Applied research: Original investigation undertaken to acquire new knowledge directed primarily towards a specific, practical aim or objective.
- Experimental development: Systematic work, drawing on knowledge gained from research and practical experience, which is directed to producing new products or processes or to improving existing products or processes.

The UN emphasises that scientific research should be conducted in a planned manner, with the primary purpose of understanding the reasons, development and effects of diseases and developing protective, diagnostic and therapeutic interventions. It should be a systematic investigation that utilises the same facilities as other research and development activities

What is an expedition?

Expeditions are organized and planned journeys or voyages undertaken for specific purposes, including but not limited to exploration, scientific research, or other forms of investigation. These expeditions typically involve a group of individuals or vehicles that are equipped and prepared to achieve a defined objective or set of objectives. The term "expedition" implies a level of planning, organization, and coordination, and is often used to describe activities that involve a degree of risk, complexity, or adventure

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What is resource extraction?

Resource extraction is any activity that withdraws resources from nature, ranging from traditional practices to global industries like mining, oil drilling, and forestry. This process involves the removal of minerals, metals, or fossil fuels from the Earth's crust, contributing significantly to economic activity globally. Resource extraction can lead to environmental impacts such as pollution, land degradation, and water pollution, with the nature and extent of pollution depending on the materials extracted and the extraction practices employed.

Additionally, the UN emphasises the importance of managing natural resources effectively to prevent conflicts and promote sustainable development, especially in fragile states and developing nations where resource exploitation can trigger or sustain violent conflicts.

What are some environmental impacts of the increased presence of humans in the Antarctic?

These are just a few:

- **Climate Change Amplification: Human activities in Antarctica, such as transportation, energy consumption, and waste production, contribute to greenhouse gas emissions, which can amplify the effects of climate change in the region. This can lead to accelerated ice melt, changes in sea levels, and alterations in local ecosystems.**
- **Disturbance of Flora and Fauna: Human activities, particularly construction, transportation, and tourism, have disturbed Antarctic flora and fauna. Harvesting of seals, whales and penguins in the past led to local extinctions and near-extinction of several species. Disturbances to breeding and moulting concentrations of marine vertebrates are a concern, as most human activity is focused on the limited ice-free coastal areas where these ecosystems are best developed.**

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- Noise Pollution: Increased human presence in Antarctica can result in noise pollution, which can disturb wildlife, particularly marine mammals and birds that rely on sound for communication, navigation, and hunting. Mitigation measures are necessary to minimize the impact of noise pollution on Antarctic wildlife.
- Introduction of Non-Native Species: A small number of non-indigenous plant and animal species has become established in Antarctica, mostly on the northern Antarctic Peninsula and southern archipelagos of the Scotia Arc. The "stepping stone" nature of many logistic and tour vessel routes exacerbates the risk of transferring non-native organisms between Antarctic regions.
- Chemical Contamination and Sewage Disposal: Chemical contamination and sewage disposal at research stations have been found to be long-lived. Contemporary sewage management practices at many coastal stations are insufficient to prevent local contamination, although no introduction of non-indigenous organisms through this route has yet been demonstrated.
- Overexploitation of Fish Stocks: Commercial fisheries have already overexploited certain finish populations in the Antarctic marine ecosystem. There is little indication of recovery of these overexploited stocks, and the ramifications of fishing activity on bycatch species and the ecosystem could be far-reaching.
- Black Carbon Deposition: The black carbon footprint of research activities and tourism in Antarctica has likely increased as human presence has surged in recent decades. Widespread adoption of energy efficiency standards and renewable power plants is urgently needed to limit the black carbon footprint of research facilities in Antarctica.
- Cumulative and Long-Term Impacts: The Cumulative impacts of tourism have received little attention and long-term and comprehensive monitoring programs have been discussed only rarely. Connections between research and policy or management do not always exist, highlighting the need for a comprehensive strategy to investigate and monitor the environmental impacts of human activities in Antarctica.

Enviromental Impact

Human activity has accelerated Antarctica's warming at a rate 2-3 times the global average, leading to significant environmental changes. The continent is losing ice mass at an alarming average rate of 150 million tonnes per year, contributing to global sea level rise. This ice melt disrupts ocean currents, affecting global weather patterns and marine life. Warming also alters the timing of seasonal events, such as the breeding and migration of penguins and other seabirds, and increases the likelihood of invasive species. Additionally, climate change causes ocean acidification, which threatens the decline of phytoplankton and krill, potentially destabilizing the entire marine ecosystem.

Hunting for whales and seals drew people to the Antarctic in the early years of the 19th century and within a very few years caused major crashes in wildlife populations. The Antarctic fur seal was at the verge of extinction at many locations by 1830 causing a decline in the sealing industry, although sealing continued at a smaller scale well into the last century . Overfishing of krill could undermine the entire marine ecosystem because they are a primary food source for many species such as whales, seals and penguins: If krill populations decline, it could lead to population declines and potential extinctions of other species that depend on krill as a food source . Over-exploitation has been a characteristic of most major fisheries world-wide and unless the controls established for the Southern Ocean fisheries are enforced they will be no exception to this

Since the early 1990s tourism in Antarctica has grown continually. Between 1992 and 2020, the number of tourists arriving increased ten-fold, rising to 75,000 in the 2019-20 season and again to 104,897 in the 2022-23 season.Antarctic travel has a high carbon footprint. Tourist activities cause damage at visitor sites and along travel routes, and disturb wildlife .

Enviromental Impact

Research has shown that tourist activities are causing penguin species to change their reproductive and social behaviors. Reduced sea ice and increased ice-free land areas mean that tourists can visit previously inaccessible places, and a warmer climate will allow the industry to extend the tourist season. The negative impacts of tourism compound other threats to Antarctica's wildlife and ecosystems, such as climate change and invasive alien species.

The environmental consequences of increased commercial shipping in the Arctic could become quite serious, not only from accidental oil spills, but also from increased pollution caused by operational discharges of oils and chemicals.

Arctic ecosystems can be affected by pollution, noise, alien species, ships colliding with marine mammals, and general disturbance, including loss of feeding and breeding areas.Contaminants accumulate in the body fat of Arctic organisms because they have evolved to store food for use in their bodies when none is available in the frozen environment. These contaminants are then passed up through the food chain, even to human beings.

Existing Legalities and Bodies

ECOSOC:

The Economic and Social Council (ECOSOC) is an organ of the United Nations whose function is to advance the three dimensions of sustainable development – economic, social and environmental. It is the central platform for fostering debate and innovative thinking, forging consensus on ways forward, and coordinating efforts to achieve internationally agreed goals.

UNEP and ECOSOC are related through their common goal of promoting sustainable development and addressing global challenges. They often collaborate on issues that intersect both environmental and socio-economic concerns, such as sustainable development goals (SDGs), poverty alleviation, and environmental governance. UNEP regularly reports to ECOSOC on its activities and initiatives, ensuring coordination and coherence within the broader framework of the United Nations system.

Related Committees

Committee of Permanent Members: The original Signatories to the Treaty are the twelve countries (Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, United Kingdom, United States and USSR) that were active in Antarctica during the International Geophysical Year of 1957-58 and then accepted the invitation of the Government of the United States of America to participate in the diplomatic conference at which the Treaty was negotiated in Washington in 1959. These Parties have the right to participate in the meetings provided for in Article IX of the Treaty (Antarctic Treaty Consultative Meetings, ATCM). Since 1959, 44 other countries have acceded to the Treaty. According to Art. IX.2, they are entitled to participate in the Consultative Meetings during such times as they demonstrate their interest in Antarctica by "conducting substantial research activity there". Seventeen of the acceding countries have had their activities in Antarctica recognized according to this provision, and consequently there are now twenty-nine Consultative Parties in all. The other 27 Non-Consultative Parties are invited to attend the Consultative Meetings but do not participate in the decision-making.

Commission for the Conservation of Antarctic Marine Living Resources: It was established by international convention on 7 April 1982 with the objective of conserving Antarctic marine life. This was in response to increasing commercial interest in Antarctic krill resources, a keystone component of the Antarctic ecosystem and a history of over-exploitation of several other marine resources in the Southern Ocean. The CAMLR Convention applies to all Antarctic populations of finfish, molluscs, crustacean and seabirds found south of the Antarctic Convergence (the Convention Area). The marine resources managed by CCAMLR specifically exclude whales and seals, which are the subject of other conventions – namely, the International Convention for the Regulation of Whaling and the Convention for the Conservation of Antarctic Seals. The conventions objectives are as follows:

Related Committees

- prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment;
- maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (a) above; and
- which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.

UNEP Environment Assembly: The UNEP Governing Council, in its decision 27/2 , decided that the Environment Assembly would set the global environmental agenda; provide overarching policy guidance and define policy responses to address emerging environmental challenges; undertake policy review, dialogue and the exchange of experiences; set the strategic guidance on the future direction of UNEP; and foster partnerships for achieving environmental goals and resource mobilization.

Antarctic Treaty System: The Treaty parties meet each year at the Antarctic Treaty Consultative Meeting. They have adopted over 300 recommendations and negotiated separate international agreements, of which three are still in use. These, together with the original Treaty provide the rules which govern activities in Antarctica. The three international agreements are:

- Convention for the Conservation of Antarctic Seals (1972):
- Convention on the Conservation of Antarctic Marine Living Resources (1980)
- Protocol on Environmental Protection to the Antarctic Treaty (1991)

Related Committees

UNCLOS: It is an international treaty that governs the rights and responsibilities of nations regarding the world's oceans. It defines territorial waters, exclusive economic zones (EEZs), and continental shelves, granting coastal states sovereignty over their territorial seas and rights to resources within their EEZs. UNCLOS guarantees freedom of navigation through international straits and archipelagic waters, while also regulating activities to protect the marine environment. It provides mechanisms for dispute resolution and sets rules for the conservation and management of high seas resources. In essence, UNCLOS establishes a comprehensive framework for international maritime law, ensuring cooperation and order in the use and preservation of marine resources and environments

Arctic Council: The Arctic Council is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous Peoples and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic.

The Scientific Committee on Antarctic Research (SCAR): It coordinates Antarctic research programs and encourages scientific cooperation. Through its various subordinate groups it is able to provide expert information on a range of disciplines and on the scientific implications of operational proposals of the Treaty meetings.

The Council of Managers of National Antarctic Programs: It comprises the heads of each of the national Antarctic operating agencies. COMNAP meets annually to exchange logistic information, encourage cooperation and develop advice to the Treaty parties on a range of practical matters.

Svalbard Treaty: The Svalbard Treaty, signed in 1920, grants Norway sovereignty over the Svalbard archipelago while ensuring other signatory nations have equal rights to engage in commercial activities, such as fishing, mining, and research. It establishes Svalbard as a demilitarized zone and promotes cooperation in scientific research and environmental protection

History

The history of Antarctic expeditions is marked by a series of remarkable journeys and discoveries. It all began in the early 19th century when explorers like James Cook and Fabian von Bellingshausen made some of the first sightings of Antarctica. However, it wasn't until the Heroic Age of Antarctic Exploration in the late 19th and early 20th centuries that significant expeditions were undertaken. The Heroic Age of Antarctic Exploration began at the end of the 19th century and closed with Ernest Shackleton's Imperial Trans-Antarctic Expedition in 1917. During this period the Antarctic continent became the focus of an international effort that resulted in intensive scientific and geographical exploration and in which 17 major Antarctic expeditions were launched from ten countries.

One of the most famous expeditions during this period was the British National Antarctic Expedition led by Robert Falcon Scott, who aimed to be the first to reach the South Pole. Concurrently, Roald Amundsen, a Norwegian explorer, successfully reached the South Pole in December 1911, beating Scott by just over a month.

Following these expeditions, scientific exploration became a primary focus. In 1928, Sir Hubert Wilkins led the first flight over the Antarctic continent, marking a new era in exploration. During the mid-20th century, expeditions intensified with the establishment of research stations, such as the Amundsen-Scott South Pole Station and McMurdo Station.

European exploration of the North reached its peak in the nineteenth century with the quest for the Northwest Passage through the Canadian Arctic Archipelago. Although exploratory expeditions fi gure prominently in the northern literature, it should not be ignored that the underlying principle of these expeditions was generally commercial and (or) political.

History

During World War II, with the rise in the importance of air power, interest in the North became more strongly focused. With the German occupation of Denmark, the United States temporarily took over the administration of Greenland and established military bases, refueling stations, and weather observatories there, largely in support of aircraft being ferried to Europe. Alaska, whose Aleutian Islands were actually invaded by Japan, also became heavily militarized and a way station for aircraft going to Russia and the Far East. This military activity resulted in a substantial group of engineers, resource geologists, military strategists, and many more “pure” scientists with expertise, fascination, and commitment to the North and its issues . There are indeed enormous deposits of oil and gas at both poles, and probably many minerals as well. Harvesting these resources will, however, be terribly difficult, dangerous, and expensive for the foreseeable future

The International Geophysical Year (IGY) in 1957-1958 spurred further scientific collaboration, leading to significant discoveries about Antarctica's geology, climate, and wildlife. Subsequent expeditions have continued to advance our understanding of this remote continent, including groundbreaking research on climate change and its global implications. Today, international cooperation and environmental conservation efforts are key components of Antarctic expeditions, ensuring that this unique and pristine environment is preserved for future generations.

The Antarctic Treaty originated in an extraordinary moment of Cold War-era cooperation.
The Treaty’s framers intended to guarantee that “... Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord.”

Contemporary situation

The role and nature of sovereign states have been profoundly affected over the past two decades by many external and internal pressures related, among other factors, to the end of the Cold War, the emergence of transnational corporations with global economic impact, the development of new technologies, and the multiplication of unconventional security threats. These developments have supported the emergence of a discourse addressing this shift from government to governance, the latter notion being more encompassing .

The decades-old Antarctic Treaty, which entered into force in 1961, expanded dramatically in 2010, although it continues to reserve Antarctica as a peaceful region devoted to scientific research and ecological preservation. However, increased fishing and tourism pressure are impacting the region at the same time that the changing climate clouds the future. The changes in the Arctic climate, more pronounced than anywhere else in the world, are opening previous frozen oceans to commercial mineral extraction and nautical transit. Whilst the economic potential is great, it lies in the most delicate balance with the environmental fragility of the region. Perhaps the one general conclusion drawn so far from the extensive scientific analysis of climate change in the Arctic is that humanity does not yet fully understand the natural systems that have affected and are affecting the world's climate. This ignorance represents the gulf in knowledge that demands a continual reassessment of the Arctic space.

Size of membership could dilute the original spirit and aims of the Treaty. This could give rise to tensions between claimant and non-claimant states, and between states and non-government organizations. Notwithstanding, the Antarctic Treaty has endured because there are still tangible benefits for the original parties. It has become flexible to accommodate new members and deal with emerging geopolitical issues as they have arisen, enabling competing positions to coexist . The resource potential of Antarctica is a risk to the Antarctic Treaty System because it raises the unresolved issue of claimant and non-claimant states

Contemporary situation

There are fears of an increasing risk of environmental damage caused by the ever-increasing number of tourists. These include the risk of introduction of non-indigenous animals, plants and microorganisms; disruption to animal breeding cycles; concerns over environmental damage from vessels operating in the Ross Sea and Peninsula regions; and pressure to establish permanent land-based tourist facilities . These concerns highlight the ongoing need for sustainable management and conservation efforts in polar regions.

Major countries position

United States of America

The United States has a vested interest in the Arctic, considering itself an Arctic nation with significant concerns and opportunities in the region. American involvement spans various international platforms such as the Arctic Council, the International Maritime Organization (IMO), and wildlife conservation agreements, reflecting a comprehensive approach to Arctic affairs.

In contrast, U.S. policy for Antarctica has evolved steadily over the years, guided by four key principles: rejecting foreign territorial claims, reserving the right to participate in future uses of the region, promoting peaceful purposes, and ensuring free access for scientific and peaceful activities. These principles underscore America's commitment to preserving Antarctica for scientific research and peaceful endeavors.

Despite limited governmental focus on the Arctic since 2009, characterized mainly by Arctic Council participation and normative relations with neighboring Arctic nations, the U.S. recognizes the growing need for Arctic infrastructure development. This includes enhancing waterways management, search and rescue capabilities, and addressing increased maritime traffic in challenging Arctic waters.

America's defense policy in the Arctic has shifted from Cold War-era priorities towards a more modest current presence, emphasizing conservation, scientific research, and international cooperation. While the U.S. does not prioritize expensive Arctic military capabilities currently, it also shows restraint in avoiding actions that could provoke an arms race.

Energy security emerges as a key national interest in the Arctic, suggesting a potential willingness by the U.S. to leverage its energy resources in the region responsibly.

Major countries position

Moreover, the United States has been proactive in developing Antarctic tourism policies and environmental protection regulations, reflecting its significant role in Antarctic tourism and commitment to preserving the unique ecosystems of the region.

Overall, the United States balances its strategic interests, environmental concerns, and cooperative engagements in both the Arctic and Antarctic regions, recognizing the evolving dynamics and opportunities in these polar areas.

Russia

Russia's strategic focus on the Arctic is evident through its extensive development of Arctic capabilities, including the commissioning of powerful icebreakers and deployment of army brigades to the region. The vast expanse of Russian land territory and proximity to the high north and frozen Arctic Sea have instilled a strong consciousness of Russia as an Arctic power within the state. Militarily, Russia has maintained a consistent Northern policy post-Cold War, albeit with reduced capacity. This military presence in the Arctic serves as both a defensive deterrent and a means to enforce Russian fishing rights in areas like the Barents Sea. However, Russia's challenge lies in broadening its Arctic policy beyond simplified Russo-Western dynamics and defining its Arctic role in an international context.
Diplomatic tensions with countries like Norway over Arctic issues, especially concerning the Barents Sea, have persisted since the Soviet Union's dissolution. Russia's view of the Arctic's natural resources as strategic national assets underscores its central role in state policy and national interests.

Russian President Vladimir Putin's thesis in 1997 on mineral wealth's role in Russian policy highlights the significance of oil and gas in Russia's foreign policy.

Major countries position

Access to Western drilling technologies through projects like the Yamal and Shtokman fields in the Kara and Barents seas has expanded Russia's Arctic resource exploitation capabilities. Russia's desire to tap into the Arctic's economic potential and assert geopolitical influence is evident. Collaborative initiatives like the Barents Euro Arctic Region, established in 1993, aim to manage regional cooperation among Sweden, Norway, Finland, and Russia in the Arctic context.

However, recent geopolitical events, such as Russia's invasion of Ukraine, have strained international cooperation. The Arctic Council's decision to suspend cooperation with Russia in response to these events reflects the complex interplay of geopolitics and resource exploitation in the Arctic region. Moscow has an increasingly securitized understanding of the future of Antarctica and the Southern Ocean. This is reflected in policies aimed at safeguarding Russian interests within the ATS . Russia becomes more assertive in its Antarctic posture and increases its presence there through expeditions and bases.

China

China's entry into the Antarctic Treaty in 1983, followed by its attainment of consultative status in 1985, marked the beginning of its concerted efforts to establish a strong presence in polar governance. Over the years, China's rapid expansion in both the Antarctic and Arctic regions has been driven by its ambition to become a maritime and polar great power by 2030.

This strategic goal underscores Beijing's desire to influence the formation of future governance norms in these critical regions and secure access to their strategic resources. China perceives the Arctic, along with the Antarctic, the seabed, and space, as areas with limited governance or oversight, presenting opportunities for shaping future norms and accessing vital resources. Chinese diplomats often refer to the region as the "new commanding heights" for global military competition, highlighting its increasing strategic importance.

Major countries position

In pursuit of its polar ambitions, China has undertaken significant initiatives in the Arctic. It has dispatched naval vessels to the region and made substantial investments in icebreaker technology. Notably, China has developed its first indigenously produced icebreaker and has plans for additional conventional heavy icebreakers, with considerations for investments in nuclear-powered icebreakers as well. These efforts are aimed at enhancing China's ability to navigate the Arctic Ocean, particularly during adverse winter conditions, and to access the region's untapped resources.

Simultaneously, China has expanded its presence in Antarctica, focusing on infrastructure, logistics, research, and tourism. With five permanent Antarctic research stations and ongoing investments, China aims to be recognized as a significant player in Antarctic affairs. This expanded presence aligns with China's broader strategy of asserting influence in global governance and resource management.China's proactive engagement in both polar regions has also translated into diplomatic achievements, such as its transition from a peripheral partner to an active member of the Arctic Council within a decade. The country's economic interests in the Arctic, driven by the region's untapped oil and gas resources and shorter international transit routes, further motivate its polar endeavors.

The recent development of an atomic-powered icebreaker by China, competing in size with Russia's largest nuclear-powered icebreakers, represents a significant step in its Arctic diplomacy efforts. This investment underscores China's commitment to navigating the Arctic's challenges and opportunities, solidifying its position as an influential actor in polar geopolitics.

Australia :

Australia's historical role as one of the founding members of the Antarctic Treaty System (ATS), as well as its status as a claimant state in Antarctica, have contributed significantly to its influence in polar affairs.

Major countries position

However, developing world powers, particularly China, have begun to establish new scientific stations and infrastructure in Antarctica, challenging Australia's long standing dominance in the region.
Australia's national interests in Antarctica and the Southern Ocean are closely tied to its geographical location and strategic issues. Prime Minister Rudd has emphasized the significance of maintaining territorial integrity, political sovereignty, and supporting stability in a global rules-based order, which reflects Australia's overall strategic approach.

While Australia accepts the ATS's multilateral scientific framework, it continues to pursue traditional sovereignty claims over Antarctic regions However, its assertive activities in claiming marine zones surrounding Antarctica initially caused conflict with other nations. In response to international concerns and to retain diplomatic relations within the ATS framework, Australia altered its claims, removing the Australian Antarctic Territory from its maritime zones.

Australia's leadership role in Antarctic affairs has faced challenges due to perceived under-investment and complacency. Nevertheless, Australia's involvement in Arctic affairs through treaties like the Svalbard Treaty has granted its nationals rights to economic activities and access to the Svalbard Archipelago. Australian firms engaged in critical mineral mining have also established a notable presence in the Arctic region, further emphasising Australia's broader polar interests and engagement beyond the Antarctic.

India :
India's polar engagement encompasses both Antarctica and the Arctic, reflecting its commitment to scientific exploration, environmental protection, and strategic interests in polar regions.

Major countries position

In Antarctica, India operates two research stations, 'Maitri' and 'Bharati,' with the newer 'Bharati' station established in March 2013. These stations serve as platforms for scientific investigations into polar processes, aligned with India's long standing view of Antarctica as a continent dedicated to peace and scientific research. The Indian Antarctic Bill 2022 provides a regulatory framework for India's activities in Antarctica, emphasising peaceful exploration and resource development in compliance with international agreements.

Recognising the rapid changes in the Arctic due to warming, India released its Arctic Policy in March 2022. The Arctic, warming three times faster than the global average, poses challenges and opportunities for India, particularly in terms of economic, national security, and water security concerns. As an observer state in the Arctic Council, India leverages its position to explore the Arctic region, focusing on economic development, sustainable practices, and environmental protection.

India's Arctic Policy is structured around six key pillars: Science and Research, Climate and Environmental Protection, Economic and Human Development, Transportation and Connectivity, Governance and International Cooperation, and National Capacity Building. These pillars guide India's multifaceted approach to Arctic engagement, emphasizing scientific collaboration, sustainable development, and global cooperation in polar governance.

Denmark:

Denmark is claiming as its own also includes the north pole. In the Kingdom's strategy for the Arctic 2011- 2020, the Governments of Greenland, the Faroes and Denmark have set out the most important opportunities and challenges . Through close cooperation in the Kingdom and with international partners working towards the common overall goal of creating a peaceful, prosperous and sustainable future for the Arctic.

Major countries position

France

:Since the 18th century, French navigators and explorers have been instrumental in the epic discoveries of the southern seas and Antarctica. France has made a name for itself as a polar nation. It has a permanent scientific presence in the Arctic and Antarctica. All French land infrastructure and logistical resources in the polar zones are managed by the Paul-Emile Victor French Polar Institute (IPEV), an agency of resources and skills serving science. France ranks 9th among scientific nations in terms of scientific publications on the Arctic and, for comparison, ranks 5th globally in terms of scientific production relating to the Antarctic. France supports an environmental precautionary approach across multiple sectors based on the protection of Arctic marine ecosystems and upholds the principle that the Arctic is an “experimental area for the development of green technology”.

Iran :

Iran’s recent assertion of ownership over Antarctica has sent shockwaves throughout the international community. The declaration by Irani commander, outlining Iran’s plans to establish a presence in the South Pole, has ignited widespread concern and speculation. This proclamation aligns with Iran’s broader agenda of expanding its naval capabilities and extending its reach far beyond its traditional sphere of influence. Notably, Irani commander underscored Iran’s maritime ambitions, emphasising the country’s capability to project power from the North Pole to the South Pole.

Major countries position

Argentina :

For over a century, Argentina has been a key actor in Antarctica, with a territorial claim to the Argentine Antarctic Sector based on solid historical, geographical, geological and legal grounds. Since 1904, it has maintained the longest permanent and uninterrupted presence on the continent . The fundamental objectives of Argentina's Antarctic activity –the consolidation of its sovereignty claim and the strengthening of Argentine influence within the Antarctic Treaty System- are part of its foreign policy.

South Africa:

South Africa's interests involve securing sovereignty over the Prince Edward Islands (PEI) and harnessing economic opportunities within the region. Prioritizing peace, security, and the protection of Antarctica's pristine wilderness aligns with its goals. Pursuing economic benefits within Antarctic Treaty System parameters is essential, leveraging the geographic proximity to the Southern Oceans and Antarctic region for sustainable development.

Concurrently, South Africa aims to maintain and enhance scientific excellence, reflecting its commitment to advancing research and understanding in this environmentally significant area.

Japan:

Japan has maintained a presence in Antarctica for scientific research purposes, conducting studies in various fields including biology, oceanography, climate science, and geology. Japan's activities in Antarctica are primarily governed by its commitment to the principles outlined in the Antarctic Treaty, including peaceful cooperation, scientific research, and environmental protection.

Major countries position

Japan operates several research stations in Antarctica, including the Showa Station and the Syowa Station, which support ongoing scientific research efforts. Additionally, Japan has been involved in international collaborative research programs in Antarctica, working alongside other treaty nations to further scientific understanding and environmental conservation efforts in the region.

Iceland:

Iceland initially joined the Antarctic Treaty in 2015 as a consultative party, which allows it to participate in decision-making regarding Antarctica's governance. However, Iceland does not have direct territorial claims or research stations in Antarctica. Iceland's interest in the Antarctic Treaty primarily revolves around environmental conservation, scientific cooperation, and the protection of Antarctica's delicate ecosystems. As a consultative party, Iceland contributes to discussions and decisions concerning the management and conservation of the Antarctic region. Currently, Iceland's involvement in the Antarctic Treaty System involves ongoing participation in meetings and discussions among consultative parties to address issues related to Antarctic governance, environmental protection, and scientific research.

Iceland's proximity to the Arctic gives it a strategic interest in the region. As a signatory of the Svalbard Treaty, Iceland shares equal commercial rights in the Arctic archipelago. Additionally, Iceland is an active member of the Arctic Council, engaging in environmental and sustainable development initiatives for the Arctic.

Major countries position

Chile: Chile maintains a stance aligned with peaceful exploration, scientific research, and environmental preservation in Antarctica. Despite territorial claims alongside Argentina and the United Kingdom, the treaty suspends these claims, emphasizing the continent's status as a zone of peace and scientific cooperation. Chile operates research stations in Antarctica, contributing to various scientific fields such as glaciology, climatology, biology, and oceanography.

Case Study

Falkland War :

The Falklands War occurred in 1982 between Argentina and the United Kingdom over the Falkland Islands, a British overseas territory in the South Atlantic. Argentina, under military rule at the time, invaded the islands, claiming them as its own. The UK, led by Prime Minister Margaret Thatcher, responded with a military task force that eventually reclaimed the islands after a ten-week conflict. The war resulted in the loss of over 900 lives and had significant political repercussions in both countries.

Oil Spill :

The oil and gas fields off the north coast of Alaska have been drilled for several generations now and as a result the area has seen a significant environmental impact affecting not only the natural world but local and indigenous communities who have been marginalized by the undeniable scale of such projects. As across the border in Canada there has been significant scarring of the landscape with oil spills numbering over 5,000 since 1996. Underpinning these concerns is the disastrous Exxon Valdez spill in 1989 from which much of the Alaskan coast is yet to recover.

Chinese Aggressive Policy

Since 2005, the Chinese Government has dramatically increased expenditure on Antarctic affairs in the quest to secure greater leadership in Antarctic administration as a result of its increasing dissatisfaction with the current order.66 Speaking at its governing meeting in July 2013, China's leader Xi Jinping stressed the need to ‘take advantage of ocean and polar resources’

Case Study

The 'Novo incident' in 2018 .

Under ATS provisions, Norway conducted an official inspection of the Novo and Perseus runways at the Novolazarevskaya air base. During this inspection, however, Russia blocked access to the Perseus runway, raising concerns over the nature of Russian activities at the base. The Norwegian report noted the 'level of activity at the air base', citing a 'potential tendency toward a larger number of aircraft'. This not only increases the risk of aerial incidents in the region, but also raises questions regarding military and intelligence activities.

- **Mining of minerals**
- **Fishing and illegal fishing**
- **Development of oil and gas fields**
- **Opening of trade routes in arctic and antarctic region**
- **potential economic benefits from economic development of activities in the Arctic**

Suggested Moderated Caucus Topics

1)Deliberating upon the loss of biodiversity and addressing possible solutions .

2)Ingestion of microplastics leading to bioaccumulation and toxic effects in polar regions .

3)Establishing a New Arctic Treaty Framework for Sustainable Governance and Cooperation

4)Sustainable Tourism Management in Arctic and Antarctic Regions for Ecosystem Protection

5)The role of non government organizations within the antarctic treaty framework

6)Overfishing and illegal fishing Mitigation Strategies in Polar Regions for Ecosystem Conservation

7)Assessing Arctic Geopolitics for Preventing Cold War Tensions and Promoting Cooperation

8)Enhancing Governance in the Arctic Council for Sustainable Arctic Development and Cooperation

9)Bioprospecting Challenges in the Antarctic Region: Benefit Sharing, Environmental Impacts, and Policy Development

10)Exploring Non-Consultative Parties' Roles in Antarctic Treaty Policies and Implementation Strategies

11)Assessing Economic and Environmental Impacts of Opening Arctic and Antarctic Trade Routes

12)Proposing Solutions to Manage Human Activity in the Polar Region.

13)Evaluating the effectiveness of existing measures in the Antarctic Treaty System for preserving the fragile ecosystems of Antarctica.

14)Examining the potential impacts of melting ice caps in the polar regions on global sea levels and coastal communities, and proposing adaptation strategies.

15)Discussing the role of indigenous communities in environmental conservation and sustainable development in the Arctic and Antarctic regions.

Conclusion

In conclusion the Environmental Impact of Increased Human Activities and Control in the Arctic and Antarctic Regions is concerning and multifaceted . It involves a wide range of concerns and involves the interests of many countries.Achieving consensus within the Antarctic Treaty System will require strong national and international leadership and, potentially, a new approach to negotiations. It will be critical that all competing interest groups be afforded the opportunity to be part of the solution.

This can be achieved through dialogue, cooperation, and the exchange of ideas. It is important for delegates to be aware of the history and the current stance of major countries on the issue. Continued evolution and strengthening of the Antarctic Treaty System affords the international community the opportunity to collaborate for the benefit of all, rather than the historically common position of a zero-sum game. Success will require long-term commitment, patience, and compromise.

It remains to be seen whether the new era of polar development will continue to be characterized by the same blinkered perspectives that marked the past. The world is now confronted with an urgent question: How should we manage the final frontiers? Will we repeat history, and do lasting damage to these fragile ecosystems and traditional ways of life? Or can we create new, durable governance structures that can protect these irreplaceable zones of discovery and awe, and usher in a new era of cooperation at the ends of the earth?
Ultimately, it is up to the international community to work together to create a safer
and a more peaceful and sustainable world for all. The AWS Committee UNEP provides a unique platform for dialogue, discussion, and collaboration on this important topic.

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