King's Christian Collegiate
Model United Nations

United Nations Environment Programme

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Welcome Letter

Dear King'sMUN 2025 delegates,

As this year's Co-Secretary Generals of King'sMUN, we are truly honoured to welcome you to our 11th annual conference. The Secretariat has been working hard throughout this school year to deliver you an incredible, in-person conference with various unique committees, experienced chairs, and a successful day of debate.

Model United Nations, a reenactment of the function of the United Nations, is designed for students to come together to debate, discuss, and develop creative resolutions to various pressing issues that plague our current world. In most committees, students take on the positions of multiple countries, characters, or political figures to create solutions for real and fictional issues and crises. We provide distinctive committees that delve into historical events, future scenarios, and fictional topics.

In our personal experience with MUN, we have developed many valuable skills that we will take with us throughout our lives, such as confidence in public speaking, leadership, and creative problem-solving. Furthermore, MUN promotes lifelong connections, as we meet delegates who share similar passions in committee sessions. We genuinely believe that your participation in MUN will guide you throughout your high school journey and beyond.

At King'sMUN, we provide a variety of committees to ensure that we have something of interest for everyone. From very current pressing issues (i.e. UNSC and the ICJ) and issues in sports (i.e. English Premier League and International Olympic Committee) to fictional committees, yet applicable issues (i.e. Pokémon) and issues set in our very own communities (i.e. Government of Ontario). We strive to ensure that there is appeal for a variety of delegates. Whether you have no experience or have attended many conferences, there is a place at King'sMUN for you!

Once again, we are thrilled to welcome all delegates, new or returning, back to King'sMUN. We hope you will engage in fruitful debate and have a fantastic time at King'sMUN 2025.

Sincerely,

Aryan Suri and Luciana Ilic

Co-Secretary Generals

King'sMUN 2025

Key Terms:

Artificial Intelligence (AI): A catch-all term for a group of technologies that can process information and, at least superficially, mimic human thinking (UNEP, 2024).

Sustainability: Meeting the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, n.d.).

Environmental Footprint: A tool used to measure the impact of people or organizations on the environment.

Data Centres: A physical room, building or facility that houses IT infrastructure for building, running and delivering applications and services (Smalley and Susnjara, 2024).

Energy Efficiency: Using less energy to perform or produce the same result of a task.

E-Waste: Any electrical or electronic equipment that's been discarded (Great Lakes Electronics Corporation, n.d.).

Renewable Energy: Energy derived from natural sources that are replenished at a higher rate than they are consumed (United Nations, 2024).

Resource Extraction: The process of taking materials from the environment for human use.

Open-pit Mining: A practical and cost-friendly method mining directly on the ground surface, producing an open pit.

Acid Leaching: A chemical process used to extract specific aspects from a solid material by dissolving them in an acid.

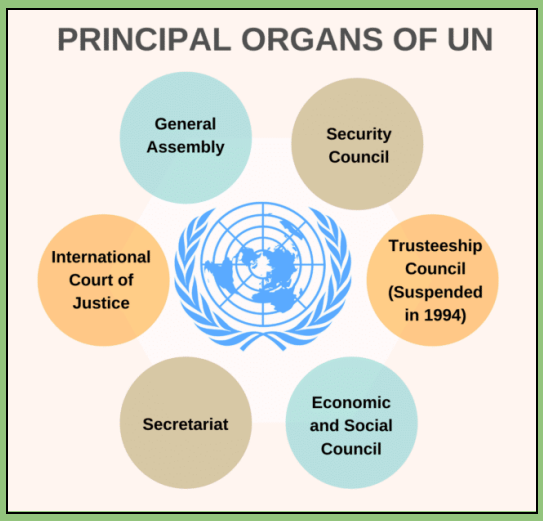
History of the United Nations

- The United Nations is an international organization that was created in 1945.

- Created to fill the demand for an organization to ensure peace, after WW2.

- The organization's goal is to uphold international peace and security, safeguard human rights, and promote sustainable development.

- It originally had 51 member states, but now has 193, and 2 observer states.



6 Organs: The **General Assembly** is a forum for all member states to discuss and make decisions on global issues, while the **Security Council** maintains international peace and security. The **Economic and Social Council** focuses on development and coordination, the **International Court of Justice** resolves legal disputes, the **Secretariat** handles the UN's day-to-day work, and the **Trusteeship Council** oversaw trust territories until its operations were suspended.

What is the United Nations Environment Programme?

The United Nations Environment Programme(UNEP), created in **1972** is the **leading global authority on the environment**, & the **leading environmental authority in the UN system.**

The UNEP's mission is to **inspire, inform, and enable** nations and peoples to **improve their quality of life without compromising that of future generations** (UNEP, n.d.).

All 193 UN Member States work with the UNEP.

Issue: AI and its Environmental Impact

Artificial Intelligence (AI) refers to a group of technologies that enable machines to process information and mimic human thinking. It can be used in several ways, from detecting patterns in large datasets to improving efficiency in the healthcare, finance, and environmental industries. AI is already being used to address environmental challenges, such as monitoring methane emissions, tracking air quality, and measuring environmental footprints (UNEP, 2022). However, the rapid expansion of AI also brings significant environmental concerns. The infrastructure that supports AI, particularly data centers, consumes vast amounts of energy, water, and raw materials, contributing to electronic waste and greenhouse gas emissions. These environmental impacts pose challenges to the sustainability of AI, despite its potential to help mitigate some of the world's most pressing environmental issues. Data centres that support AI systems are significant users of electricity, water, and raw materials, frequently relying on fossil fuels that lead to greenhouse gas emissions, specifically 2.5-3.7% of the world's emissions (Cho, 2023).The creation of AI hardware also requires rare earth elements, which are extracted through environmentally harmful methods such open-pit mining and acid leaching. These methods can lead to deforestation, soil erosion, and the contamination of nearby water sources with toxic chemicals. Moreover, equipment used to train and run generative AI models could produce up to 5 million tons of e-waste by 2030 (Crownhart, 2024). The environmental impact of AI is made even more complex by its water usage, as data centers demand large quantities of water for cooling, which creates significant issues in regions that are experiencing water shortages.

To tackle these issues, the United Nations Environment Programme (UNEP) has proposed various actions, such as creating standardized methods for assessing AI's environmental effects, enhancing regulations that demand companies to reveal the environmental impacts of their AI development, and promoting the adoption of renewable energy for data centers.

Delegates in the committee should work together to establish resolutions that address the environmental impact of AI. Delegates should ensure they address both positive and negative impacts of AI usage and development, regarding the environment. Resolutions are recommendations to the UN, implying that resolutions cannot make direct changes to private sector practices or enforce laws in other countries.

SUSTAINABLE DEVELOPMENT GOALS

A Sustainable Development Goal (SDG) is a global goal set by the United Nations to address pressing social, economic, and environmental challenges by 2030. All UN member states adopted these goals in 2015.

The issue of mitigating the environmental impact of AI aligns with several UN Sustainable Development Goals (SDGs).

SDG 7 emphasizes the importance of ensuring access to affordable, reliable, sustainable, and modern energy for all (Target 7.2), which relates to powering AI technologies with renewable energy sources.
SDG 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation (Target 9.4), which includes developing AI in environmentally sustainable ways.
SDG 12 calls for sustainable consumption and production patterns (Targets 12.2, 12.5), addressing the environmental consequences of AI hardware production, e-waste, and resource use.
SDG 13 focuses on climate action, particularly integrating climate change measures into AI-related industries and improving energy efficiency (Targets 13.2, 13.3).
SDG 14 aims to conserve and sustainably use oceans, seas, and marine resources (Target 14.1), relevant for the impact of AI-driven technologies on marine ecosystems through increased energy consumption and resource extraction.
SDG 15 stresses the importance of protecting, restoring, and promoting the sustainable use of terrestrial ecosystems (Target 15.1), including minimizing environmental harm caused by rare earth element mining for AI production.

Statistics & Graphs

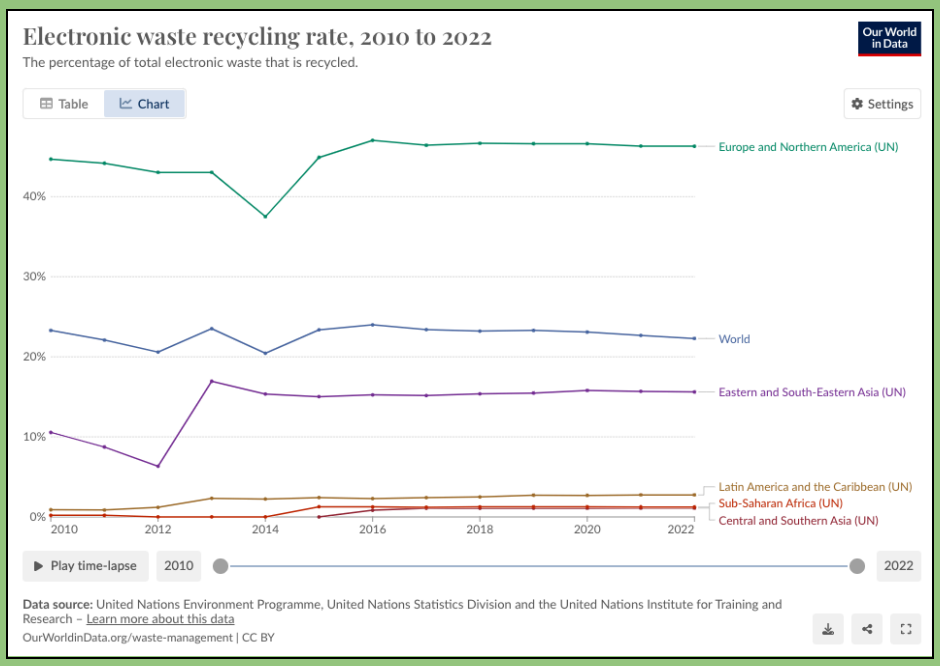


Figure 1: E-Waste Recycling Rates Per Continent

The International Energy Agency estimates that by 2026, electricity consumption by data centers, cryptocurrency, and artificial intelligence could reach 4% of annual global energy usage — **roughly equal to the amount of electricity used by the entire country of Japan!**

Training GPT-3 in Microsoft's U.S. data centers can directly evaporate **700,000 liters of clean fresh water.** That's enough water to produce **370 BMW cars** or **320 Tesla electric vehicles.** (Dhanani, 2024).

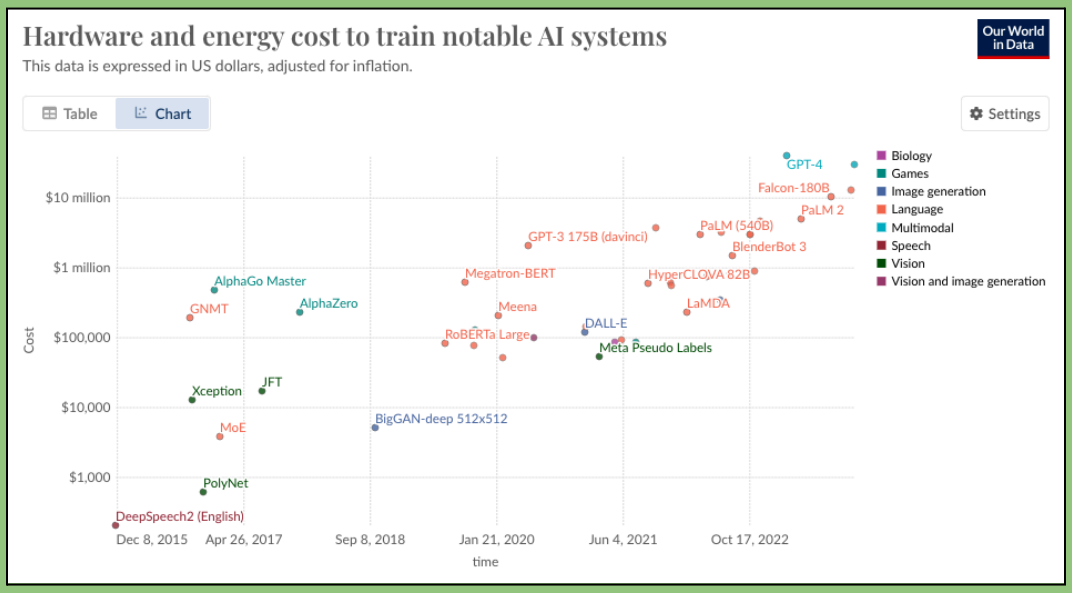


Figure 2: Hardware & Energy Cost of Developing Notable AI Systems, USD

Questions to Consider:

- How can the UNEP encourage tech companies to use sustainable practices in the design, production, and deployment of AI technologies?
- How can governments convince companies to use renewable energy sources to power AI data centers?
- How can AI be used to improve environmental monitoring and contribute to global efforts in combating climate change?
- Which countries in the world are contributing to the AI industry the most?
- How can guidelines of AI usage be implemented? How will they be regulated?

Helpful Resources:

MIT Research: https://www.technologyreview.com/2024/10/28/1106316/ai-e-waste/

Columbia University Research:

https://news.climate.columbia.edu/2023/06/09/ais-growing-carbon-footprint/#:~:text=Because%20of%20the%20energy%20the,those%20of%20the%20aviation%20industry.&text=Most%20of%20a%20data%20center's,to%20operate%20processors%20and%20chips.

Yale University Research:

https://environment.yale.edu/news/article/can-we-mitigate-ais-environmental-impacts#:~:text=The%20mining%20and%20production%20of,when%20not%20disposed%20of%20correctly.

UNEP Research:

https://www.unep.org/news-and-stories/story/ai-has-environmental-problem-heres-what-world-can-do-about

https://wedocs.unep.org/handle/20.500.11822/46288;jsessionid=AAC7EB5963711CF74801D0E12EF4ECFE

https://www.unep.org/news-and-stories/story/how-artificial-intelligence-helping-tackle-environmental-challenges

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