



UNEP

United Nations

Environmental Programme

President: María Fernanda Ruiz Iriarte

Moderator: Julia Kaeli Escartín

Conference Officer: Ivan Alejandro Alcantara Tapia

Welcome Letter to Delegates.

Dear Delegates, it is our great pleasure to welcome you to UNEP. We hope that during the time we spend together at the model we can not only take action by raising our voices to address and help solve the environmental crises we are facing today as a society, but we also hope to create a space where you can develop and express yourselves in every possible way.

Just as you are doing right now, we also dreamed and continue to dream of a better world. More importantly, a world where our voices make a difference, a world where we have the courage to stand up for what we believe in and expand our knowledge to be better prepared for the challenges ahead of us.

These Model United Nations simulations are not only an extracurricular activity to add to a college application or a project to get a better grade. This is just the beginning. During this conference, you will learn things about yourselves that you didn't know you had within you.

You are going to get frustrated, you are going to be mad, sad and we assure you, you are going to get tired. Nevertheless, thanks to those moments, we can also assure you that you are going to grow in unimaginable ways. You are going to learn how to express an idea, how to make people truly hear you, not just simply listen; you're going to develop critical-thinking, problem-solving skills; and the most important thing: you are going to develop confidence.

We sincerely hope that we can contribute to your progress, and be there for you during these stressful moments. Remember that every person who has made a difference in this world started with nothing but a dream, and the desire to change their reality.

Are you ready to be the next one?

Sincerely,

President: María Fernanda Ruiz Iriarte

Moderator: Julia Kaeli Escartín

Conference Officer: Ivan Alejandro Alcantara Tapia

In case of any doubts contact:

Maria Fernanda Ruiz Iriarte

ABOUT THE COMMITTEE,

What is UNEP?

The United Nations Environmental Programme is the United Nations main worldwide authority on the environment, leading transformational change on the triple crisis that our world is facing nowadays: the crisis of climate change, the crisis of nature, land and biodiversity loss, and the crisis of pollution and waste. UNEP also focuses on supporting the private sector financial institutions like banks, investors, and insurers in identifying and cooperating in the commercial opportunities from climate action. The developing countries have access to these funds from the Green Climate Fund (GCF) through the "UN Readiness Program", the Global Environmental Facility (GEF) and the Adaptation Fund (AF).

Founded in 1972 during the United Nations Conference on the Human Environment in Stockholm, Sweden. UNEP has worked as a neutral link between Member States, the private sector, UN agencies, etc. to address the most pressing environmental crises humanity is facing. From protecting species to restoring the ozone layer, UNEP has facilitated international agreements that have made environmental action possible throughout the years. Today, UNEP holds the most large number of members, including the 193 recognized United Nations' Member States and meets every two years to pass global environmental solutions. Headquartered in Nairobi, Kenya, The United Nations Environmental Programme provides open-access to scientific, technical and policy resources to support evidence-based decision-making for a sustainable planet. Unlike regular UN agencies UNEP relies purely on donations. Over 95% of its money comes from voluntary contributions provided by Member States and partners for core operations and specific projects.

UNEP's Current Priorities

For the 2026–2029 period, UNEP organizes its work through seven interconnected subprogrammes. Three focus directly on Climate Action, Nature Action, and Chemicals and Pollution Action. These are supported by programmes concerning Science-Policy, Environmental Law and Governance, Finance and Economic Transformations, and Digital Transformations.

This structure reflects UNEP's increasing focus on addressing environmental problems through integrated solutions. Environmental challenges are not treated exclusively as ecological issues, but also as matters involving economic development, international trade, technology, public health, financing, human rights and social inequality.

UNEP also places significant importance on the science-policy relationship. Through environmental assessments, data and research, the organization seeks to provide governments with reliable scientific evidence upon which environmental decisions can be based. This role allows UNEP to identify emerging environmental risks and promote coordinated international action before these problems become irreversible.

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Topic A: Electric vehicle batteries, the environmental and social costs of the energy transition

The global shift toward low-carbon economies has placed the electrification of the transport sector at the core of international climate strategies. Electric vehicles are widely promoted as a key solution to reduce greenhouse gas emissions, decrease reliance on fossil fuels, and improve urban air quality. However, the rapid acceleration of EV adoption has exposed a critical paradox within the green energy transition: the technologies designed to solve the climate crisis rely heavily on supply chains that cause severe environmental degradation and human rights concerns.

At the center of this challenge are lithium-ion batteries, which power the vast majority of modern electric vehicles. Producing these high-capacity batteries requires vast amounts of critical minerals, primarily lithium, cobalt, nickel, manganese, and graphite. The extraction, processing, and eventual disposal of these materials create significant ecological footprints, localized pollution, and social conflicts.

The demand for energy transition minerals has surged rapidly over the past decade. As governments announce deadlines to phase out internal combustion engine vehicles, the market demand for battery raw materials is projected to increase exponentially.

Historically, global supply chains for critical minerals have developed under fragmented regulatory oversight. Extraction is concentrated in a small number of developing nations, while processing and final manufacturing are dominated by a few industrialized and emerging economies. This dynamic has reproduced historical patterns of resource exploitation, where low- and middle-income countries bear the primary environmental and social burdens of extraction without fully enjoying the economic or environmental benefits of clean mobility.

Mining critical minerals places extreme pressure on local ecosystems. Lithium extraction in regions like the "Lithium Triangle" (Argentina, Bolivia, and Chile) requires massive amounts of groundwater, leading to severe water scarcity, soil contamination, and disruptions to local agricultural systems. Similarly, nickel mining and smelting in regions like Southeast Asia result in deforestation, biodiversity loss, and the discharge of toxic tailings into marine environments.

The extraction of battery materials is frequently linked to severe labor and social rights violations. In the Democratic Republic of the Congo, which produces over 70% of the world's cobalt, artisanal and small scale mining operations often involve neglect working conditions, child labor, unsafe exposure to toxic dust, and community displacement. Also, an estimated 54% of global critical mineral reserves are located on or near Indigenous peoples' lands, raising crucial issues regarding free, prior, and informed consent.

The extreme concentration of critical mineral extraction and refining capacities creates significant trade bottlenecks and geopolitical friction. National competition to secure access to battery materials can lead to market volatility, export restrictions, and regulatory races to the bottom, where environmental and social safeguards are lowered to attract foreign investment.

Industrialized nations seek to secure stable critical mineral supply chains while responding to domestic political pressures for sustainable sourcing. The EU, through initiatives like the EU Battery Regulation, emphasizes mandatory carbon footprint declarations, supply chain due diligence, and aggressive recycling.

targets. However, consumer nations often balance these environmental and human rights goals against the economic need to keep EV prices competitive.

Key Questions:

1. How can UNEP assist member states in implementing Extended Producer Responsibility (EPR) frameworks to ensure battery circularity and standardized end-of-life recycling?
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2. What binding or non-binding global mechanisms can be established to enforce human rights and environmental due diligence across critical mineral supply chains?
3. How can the international community facilitate technical and financial assistance to developing countries so they can safely manage end-of-life battery waste and second-hand EV imports?
4. What policy frameworks can prevent water depletion, habitat destruction, and toxic waste contamination in regions surrounding major lithium, cobalt, and nickel extraction operations?
5. How can global trade policies support domestic value addition and fair economic benefit-sharing for mineral-endowed developing nations?

References

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Topic B: Toxic chemical pollution, and the absence of a binding global regulatory framework capable of addressing the full lifecycle of them

In recent decades, global industrial development, agricultural expansion, and technological progress have significantly increased humanity's reliance on synthetic chemicals. Today, toxic chemicals are present in almost every aspect of daily life, including cosmetics, consumer electronics, pesticides, and industrial manufacturing. While these substances have driven economic growth and improved living standards in many areas, they have also created one of the most severe, yet underreported, environmental and health crises of our time.

Toxic chemical pollution refers to the contamination of natural environments by substances that disrupt ecological balance and harm human health. Unlike traditional pollutants that degrade naturally, many of these chemical compounds are persistent, toxic, and bioaccumulative. This means they remain in the environment for extended periods, travel across national borders through air and water currents, and build up in the food chain. Consequently, toxic chemical pollution is no longer a localized issue; it is a global threat that requires a coordinated, comprehensive international response.

Despite the growing scale of this crisis, current international law lacks a single, unified, and legally binding treaty that covers the entire lifecycle of chemicals from their initial extraction and production to their distribution, use, and ultimate disposal. Instead, the global community relies on a fragmented framework of sectoral agreements. While these existing treaties address specific aspects of chemical management, significant gaps remain. These loopholes allow substances to be manufactured in regions with weak environmental regulations, exported to developing nations, and dumped into ecosystems without proper treatment, highlighting an urgent need for systemic reform.

The most critical vulnerability in the current global governance model is the lack of "cradle to grave" regulation. A chemical may be produced under strict safety protocols in one country, traded internationally with minimal oversight, used in agricultural or industrial processes without environmental safeguards, and eventually discarded in a region with no waste processing capacity. Fragmented treaties only regulate specific fragments of this chain, leaving major gaps during the design, raw material extraction, and manufacturing phases.

Modern science has revealed new categories of pollutants that were largely unforeseen when earlier treaties were drafted. **Per- and polyfluoroalkyl substances (PFAS)**, often referred to as "forever chemicals," are widely used in nonstick coatings, firefighting foams, and stain resistant materials. PFAS do not break down naturally and have been detected in drinking water and human blood worldwide. Similarly, industrial additives in plastics, heavy metals from electronic waste, and pharmaceutical residues in water systems present complex management challenges that existing frameworks are ill equipped to handle.

Exposure to toxic chemicals is linked to a wide range of severe health conditions, including cancers, endocrine disruption, neurodevelopmental disorders, reproductive failures, and chronic respiratory diseases. Vulnerable populations, such as industrial workers, agricultural laborers, women, and children, suffer disproportionately. The UN Special Rapporteur on Toxics and Human Rights has repeatedly emphasized that living in a non-toxic environment is a fundamental human right, one that is systematically violated in heavily polluted communities known as "sacrifice zones."

The neglect in the use of chemical substances leads to a profound economic imbalance in how chemical risk is distributed globally. High income nations frequently manufacture complex chemical products or consume them, but export waste or banned chemical substances to low and middle income countries. Many of them lack the infrastructure, monitoring equipment, and regulatory enforcement capacity necessary to process toxic waste safely, resulting in severe local contamination and severe health risks for marginalized populations.

In recent years, the international community has recognized that the current approach is insufficient to address the scale of chemical contamination. During the UN Environment Assembly in 2022, member states adopted a historic resolution to establish an intergovernmental Science Policy Panel on Chemicals and Waste and to Prevent Pollution. Similar to the IPCC for climate change, this panel aims to provide policymakers with authoritative scientific assessments to guide decision making.

Developing nations generally suffer the worst consequences of toxic pollution while contributing the least to chemical production. Their primary priorities involve securing financial support, technical assistance, and technology transfer from developed nations to build capacity for risk management. They advocate for strict controls on the export of banned chemicals from rich countries, enforcement of the "polluter pays principle," and mechanisms that hold multinational corporations accountable for local environmental damage.

The aim in our programme is to achieve the decomposition of the topic in order to find the root of the situation and prioritize solving each point of the list of attributions that make up this concern, while keeping the regulations equal and fair for each country who takes account into the committee.

Key questions:

1. How can the international community bridge the gap between existing chemical treaties to establish a comprehensive, "cradle-to-grave" regulatory model?
2. What mechanisms can be created to ensure that developed nations stop exporting hazardous chemicals and wastes to countries without adequate disposal capacity?
3. How can member states incentivize the chemical industry to adopt "Safe and Sustainable by Design" principles and replace hazardous substances with non-toxic alternatives?
4. What funding structures, technical assistance programs, and scientific capacity-building measures are needed to support developing countries in managing chemical risks?
5. How should the committee address the problem of "regrettable substitution" and accelerate the risk-assessment process for newly developed synthetic compounds?
6. What role should corporate accountability and the "polluter pays principle" play in international legal frameworks governing toxic chemical pollution?

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