Topic A: Managing Chemical Waste to Protect Human Health and the Environment

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I. INTRODUCTION

Dear delegates of the United Nations Environment Programme (UNEP),

During this debate, you will discuss the current topic: **Managing Chemical Waste to Protect Human Health and the Environment.**

Around the world, the rapid increase in chemical production and the mismanagement of hazardous waste have become urgent threats to both human health and ecological stability. When chemical substances are improperly handled or disposed of, they contaminate air, water, and soil, leading to poisoning, chronic illnesses, cancer, and long-term damage to entire ecosystems. Biodiversity loss, water pollution, and soil degradation are among the most severe outcomes. As global waste is projected to reach 2.2 billion tonnes by the end of 2025, the issue becomes especially critical for countries with weak waste-management systems and high hazardous-chemical production, such as China, Bangladesh, and Thailand.

UNEP expresses deep concern regarding the escalating levels of chemical pollution and expects meaningful debate. The objective of this committee is to examine effective policies, strengthen international cooperation, and explore sustainable strategies to reduce chemical waste and protect global health.

Welcome to the Olinca Model United Nations (OLINMUN) 2026.

Yours sincerely,

Mariana Pérez Sánchez
Head of Committee of UNEP

Diego Andrés Rubio Valderrama
Chair of UNEP

Alejandra Sámano Suárez
Moderator of UNEP

María Madrid Pérez
Deputy Chair of UNEP

NOTE: We highly recommend you thoroughly read the following document and the Delegate Handbook. We expect they will provide an overview of the topics discussed and allow you to acquire crucial information about the rules of procedure.

II. OVERVIEW

A. COMMITTEE'S BACKGROUND

The United Nations Environment Programme (UNEP) is the highest authority regarding the environment in the world. Its mission is to inspire, inform, and lead 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 help with humanity's greatest environmental challenges, such as restoring the ozone layer, protecting the world's seas, and promoting a green inclusive economy. It is also driving transformational change by facing the root causes of the planetary crisis of climate change. This committee is focused on helping countries change to low-carbon and resource-efficient economies, strengthening environmental governance and law, safeguarding ecosystems, and providing evidence-based data to inform policy decisions.

Its core mission is to find solutions to the planetary environmental crisis. As the highest authority regarding the environment in the world, the institution helps its Member States to embrace climate stability, live in harmony with nature and create a pollution-free future, supporting the achievement of all 17 Sustainable Development Goals.

B. COMMITTEE'S ACHIEVEMENTS

Throughout the last years, UNEP has helped shape five decades of important environmental milestones. One of its major achievements has been the initiation, negotiation, and implementation of many multilateral environmental agreements, bringing together nations and addressing environmental challenges.

Thanks to UNEP support, many countries now have stronger environmental institutions, better instruments, greater knowledge, greener investments, and partnerships. This committee encourages discussions and enables the sharing of innovative ideas, technologies, and innovations. It has been appreciated for being an access free provider of tools such as integrated environmental assessments and for education and awareness-raising campaigns. It also provides 15 multilateral agreements which concern a range of environmental issues namely emissions, protection of biodiversity, endangered and migratory species, oceans, and ozone layer among others.

III. MANAGING CHEMICAL WASTE TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT

Global regulations on chemicals aim to ensure the safe management of hazardous substances and waste, protecting both human beings and the environment from severe risks. As chemical production increases worldwide, the impacts of pollution intensify—particularly in nations lacking sustainable waste-management infrastructure.

Each year, 1.8 million deaths are linked to chemical pollution. According to UNEP, one in three children has blood lead levels above safe limits, primarily due to exposure from contaminated soil, unsafe recycling practices, and industrial emissions. Hazardous chemicals—such as mercury, lead, pesticides, and Persistent Organic Pollutants (POPs)—pose long-term threats, including cancer, reproductive harm, neurological damage, and ecosystem destruction.

The risks are greatest in developing countries, where regulations are weak, monitoring systems are insufficient, and industries often rely on inexpensive but hazardous chemicals. With industrialization expanding rapidly across low-cost markets, unsafe disposal practices continue to contaminate communities and natural resources.

For more than 30 years, UNEP and the Global Environment Facility (GEF) have partnered to reduce toxic chemicals and build sustainable waste-management systems. These joint efforts focus on:

- Eliminating mercury and Persistent Organic Pollutants (POPs);
- Mananging e-waste and plastic pollution;
- Promoting safer industrial chemicals;
- Supporting waste regulations and national policy reform;
- Developing green technologies and sustainable alternatives.

UNEP’s long-term goal is to minimize the production, use, and release of hazardous chemicals while ensuring sustainable consumption and circular economic models.

Reducing chemical waste requires global cooperation, industry accountability, stronger environmental laws, and international funding to support low- and middle-income countries.

Ultimately, this committee aims to evaluate how nations can achieve standardized, sustainable management across the entire chemical life cycle, from production to disposal, to safeguard public health and promote environmental resilience.

IV. KEY POINTS FOR DEBATE

1. Outcomes of chemical waste mismanagement
    a. Impacts on human health and disease risks.
    b. Consequences for ecosystems, biodiversity, and natural resources.
2. Causes and contributing factors
    a. Industrial and manufacturing processes that generate hazardous waste.
    b. Outdated or insufficient regulations enabling uncontrolled dumping.
    c. Reliance on cheap hazardous chemicals in poorly regulated markets.
3. Law enforcement and regulation
    a. Inadequate monitoring and inspection systems.
    b. Discrepancies in enforcement between high- and low-income countries.
4. Cultural and societal factors
    a. Low public awareness leading to improper chemical disposal.
    b. Economic priorities that overlook environmental safety.
5. Corporate, organizational and governmental initiatives
    a. Identifying measures taken by governments, companies, and NGOs.
    b. Education campaigns for safe chemical handling and community protection.

6. Producer and consumer responsibility
    a. Environmental impacts of consumer choices.
    b. Promoting eco-labels, transparency, and safe-production advocacy.
7. Environmental justice and inequality
    a. Disproportionate exposure of marginalized communities to chemical hazards.
    b. Lack of healthcare and environmental information in vulnerable areas.
    c. Ensuring equitable access to healthcare and environmental protection.
8. International collaboration
    a. Cross-border pollution and the need for shared monitoring systems.
    b. Joint research, funding, technology transfer, and capacity building.

IV. ANNEXES

A. LIST OF COUNTRIES

1. Bangladesh
2. Cambodia
3. China
4. Eritrea
5. Finland
6. France
7. Germany
8. India
9. Japan
10. Laos
11. Malaysia
12. Mexico
13. Moldova
14. Myanmar
15. Norway

16. Pakistan
17. Philippines
18. South Korea
19. Sweden
20. Taiwan
21. Thailand
22. Russian Federation
23. United Kingdom
24. United States of America

B. REFERENCES

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