Committee: United Nations Environmental Programme (UNEP)
Issue: Exploring the problem of loss of biodiversity as a result of human activity
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Introduction

Biodiversity collectively describes the billions of unique organisms that inhabit Earth, including ecosystems, genetic diversity and species. It is essential to maintain an ecological balance, support food systems, regulate climate and sustain economic development. Biodiversity is declining at an alarming rate "with global wildlife populations plummeting by an alarming average of 73% between 1970 and 2020" *(World Wildlife Organisation)*.

The loss of biodiversity threatens global food security, economic and environmental stability as well as public health. The UNEP is a leading global authority that addresses the triple planetary crises with one of them being biodiversity loss. The UNEP aims to stop nature loss by coordination international environmental efforts and supporting countries in implementing biodiversity protection policies.

Definitions of Key Terms

Biodiversity: The variation among living organisms from different sources that include terrestrial, marine and desert ecosystems.

Ecosystem: A community of living organisms interacting with each other and their physical environment including all biotic and abiotic elements.

Habitat destruction: The degradation of natural landscapes to a point where they can no longer support their native species.

Over exploitation: Harvesting species from its habitat at a rate faster than the population can recover.

Climate change: "The long-term shifts in weather and temperature patterns primarily caused by human activities specifically burning fossil fuels like coal, oil and gas which release heat trapping greenhouse gases" *(United Nations)*

Background Information

"The loss of biodiversity as a result of human activity first occurred in Africa, with significant impacts linked to human ancestors (homimins) starting as early as 4 billion years ago" (Helen Briggs). Loss of biodiversity has escalated from localized habitat alteration to a global accelerating crisis driven by population growth, consumption and industrialization. The loss of biodiversity affects all life on Earth especially human populations particularly vulnerable communities. It also affects the stability of global ecological systems.

“Biodiversity loss weakens ecosystems by breaking food chains, reducing resilience to climate change and reducing essential services like water purification, pollination and nutrient cycling” *(World Animal Protection Organization)*. This issue affects humans by triggering severe food insecurity, increased disease outbreaks and economic losses which then endangers the health and livelihoods of billions.

The loss of biodiversity as a result of human activity is important to discuss because it addresses the threats being faced by the natural life support systems that provide humans with fresh water, clean air, food security and medicine.

Current Context

Recent efforts to combat the loss of biodiversity include the Kunming-Montreal Global Diversity framework which was introduced in 2022 and its key actions are to increase funding through the Global Biodiversity Framework Fund, implementing nature based solutions to climate change, recognizing indeginous-led conservation and reducing harmful agricultural subsidies. The World Wildlife Fund (WWF) 2024 living Planet Report confirmed that the average wildlife population sizes have dropped by 73% in the past 50 years with the steepest declines being fresh water habitats which have decreased by 83%.

Major Countries and Organizations Involved

United States, China, Japan, Germany, France: These countries are identified as the largest contributors to global diversity loss through imported deforestation and trade related impacts.

Indonesia, Malaysia, Papua New Guinea, Brazil: These nations alongside USA, Australia and India are where the majority of global biodiversity loss for birds and mammals species has occurred.

United Kingdom: Has the lowest biodiversity remaining (50,3%) in Europe.

United Nations Environment Program (UNEP): Has identified the five main drivers of biodiversity loss which include pollution, climate change, invasive species, land/sea use changes and resource exploitation.

World Health Organization: Mainly focuses on the connection between loss of biodiversity and human health, aiding countries in policy development.

International Union for Conservation of Nature: Maintains the global Red List of Threatened Species and supports conservation initiatives worldwide.

Timeline of Events

1800s: Industrial Revolution: Rapid industrialization increased deforestation, pollution, fossil fuel use, pollution and habitat destruction worldwide.

1916: First National Parks Expansion: Countries created protected areas but industrial expansion continued to threaten ecosystems.

1948: Creation of the International Union for Conservation of Nature: Established to provide global conservation and later created the Red List of Threatened Species.

1972: Stockholm Conference: This was the first global environment conference which led to the creation of the United Nations Environment Programme.

1987: Brundtland Report: Introduced the concept of sustainable development, linking environmental protection to economic growth.

1992: Rio Earth Summit: Adoption of the Convention of Biological Diversity (CBD), a treaty to protect biodiversity.

2010: Aichi Biodiversity Targets: Global biodiversity goals adopted under the CBD.

2019: IPEBS Global Assessment: The Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services reported that 1 million species are at risk of extinction due to human activity.

2022: Kunming Montreal Global Biodiversity Framework: Countries agreed to protect 30% of land and oceans by 2030.

Relevant UN Resolutions and Events

1972: Stockholm Conference

(https://www.un.org/en/conferences/environment/stockholm1972)

1987: Brundtland Report

(https://www.are.admin.ch/en/1987-brundtland-report)

1992: Rio Earth Summit

(https://www.un.org/en/conferences/environment/rio1992)

2010 Aichi Biodiversity Targets

(https://www.cbd.int/sp/targets)

2019 IPBES Global Assessment

(https://www.ipbes.net/ipbes-global-assessment-report-biodiversity-ecosystem-services)

2022: Kunming-Montreal Global Biodiversity Framework

(https://www.unep.org/resources/kunming-montreal-global-biodiversity-framework)

Previous Attempts to Solve the Issue

Stockholm Conference

The Stockholm Conference held in 1972 was the first global meeting focused on environmental issues. It led to the creation of the UNEP, which coordinates environmental cooperation.

Convention on Biological Diversity (CBD)

The CBD was adopted at the Rio Earth Summit in 1992 and it is the main international treaty on biodiversity. It encourages countries to conserve ecosystems and promote sustainable use of resources.

Aichi Biodiversity Targets

Under the CBD, countries adopted 20 measurable targets to be achieved by 2020. Some of the measures included reducing habitat loss, preventing species extinction and expanding protected areas.

Sustainable Development Goals

The Sustainable Development Goals intergrated biodiversity into global development policy, particularly Goal 14 which states “Life below the water” and Goal 15 which states “Life on Land”. These goals encourage sustainable management of forests and wildlife.

Kunming-Montreal Global Diversity Framework

This framework was adopted under the CBD and set new global biodiversity targets including protecting 30% of land and oceans by 2030 and increasing financial support for conservation especially in developing countries.

Evaluation of efforts

These efforts have been strong in creating frameworks and raising awareness but weak in implementation, funding and enforcement which explains why biodiversity loss continues despite decades of international agreement.

Possible Solutions

Strengthening Conservation Policies by:

- Improving monitoring of biodiversity as well as improving enforcement of policies.
- Expansion of potected areas for biodiversity to reduce over exploitation.

Climate Action

- Restoring degraded ecosystems to enhance carbon capture.

- Reducing greenhouse gas emissions by using renewable energy sources.

Education and Awareness

- Promote responsible consumption patterns through awareness campaigns
- Increasing environmental educational programs

Economic Incentives

- Implementation of biodiversity credits.
- Encouraging green investments

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