

5. Global Environment Outlook- Environment

The Global Environment Outlook, Seventh Edition- A Future We Choose (GEO-7), was released during the seventh session of the United Nations Environment Assembly in Nairobi

About GEO-7

Global Environment Outlook – 7 (GEO-7) is the flagship environmental assessment of United Nations Environment Programme. The GEO series was first published in 1997, making it one of the longest-running global environmental assessment frameworks. GEO-7 provides

1. Science-based, policy-relevant, and participatory analysis
2. Assessment of planetary environmental health
3. Evaluation of policy effectiveness
4. Forward-looking scenarios to guide global environmental decision-making

It integrates data from natural sciences, social sciences, economics, and indigenous knowledge systems.

Major Highlights of the GEO-7 Report

Approaching Planetary Tipping Points- The report warns that multiple Earth system tipping points could be crossed within years to decades, risking irreversible changes-

1. **Monsoon systems-** Altered intensity, timing, and spatial distribution, affecting billions dependent on rain-fed agriculture.
2. **Arctic sea ice loss-** Likely to disrupt the jet stream, increasing the frequency and persistence of extreme weather events.
3. **Permafrost thaw-** Abrupt thaw could release massive quantities of methane, a potent greenhouse gas, accelerating warming.
4. **Coral reef collapse-** Coral die-off is already underway due to ocean warming and acidification.
5. **AMOC slowdown or collapse-** Weakening of the Atlantic Meridional Overturning Circulation could trigger rapid climate shifts in Europe and Africa, affecting rainfall, temperatures, and food systems.

Alarming Global Environmental Trends

Climate change- Global average temperature has already increased by 1.3°C above pre-industrial levels. Projected warming could reach 2.4°C–3.9°C by 2100, potentially faster than IPCC projections.

Biodiversity loss- Nearly 1 million species face extinction, threatening ecosystem services critical for human survival.

Land degradation- 20–40% of global land is already degraded, undermining food security and livelihoods.

Waste and pollution- Solid waste generation exceeds 2 billion tonnes annually, projected to rise sharply. Plastic production may triple by 2060 in the absence of strong policy interventions.

Human health impacts- Pollution causes around 9 million premature deaths annually, exceeding deaths from wars and pandemics combined.

Economic costs- Climate change could reduce global GDP by 4% by 2050. Losses could reach 20% of global GDP by the end of the century, disproportionately impacting developing countries.

Interconnected Drivers of Environmental Degradation

Environmental crises are driven by mutually reinforcing factors-

1. Rapid population growth
2. Unplanned urbanisation
3. Resource-intensive consumption patterns
4. Fossil-fuel dependent growth models
5. Weak governance and policy implementation failures

The report stresses that environmental problems are systemic, not sector-specific.

Failure of Current Policies and Global Commitments

Existing national and international policies are grossly insufficient to meet environmental goals. Without transformational change- Environmental SDGs will not be achieved. International commitments such as- Paris Agreement Kunming-Montreal Global Biodiversity Framework Aichi Biodiversity Targets will remain unmet. Incremental reforms are inadequate; structural transformation is essential.

India-Specific Findings and Implications

Monsoon and Climate Risks- Changes in monsoon circulation pose serious risks to South Asia, particularly India. Likely impacts include

1. Increased frequency of droughts and floods
2. Heightened water stress
3. Disruption of agriculture and food systems

These changes threaten rural livelihoods, nutrition security, and economic stability.

Land Degradation in India- Approximately 33% of India's geographical area (115-120 million hectares) is affected by land degradation. Key consequences

1. Declining soil fertility
2. Reduced agricultural productivity
3. Increased vulnerability of small and marginal farmers

Directly undermines goals related to food security, poverty reduction, and sustainable agriculture.

Climate Ambition Assessment- GEO-7 classifies India's current climate targets as "Highly insufficient" for aligning with the 1.5°C pathway.

Achieving climate goals will require

1. Stronger domestic mitigation efforts
2. Large-scale climate finance
3. Technology transfer and international cooperation, in line with CBDR-RC principles.

Policy Recommendations and Transformational Pathways

Target-Seeking Scenarios- GEO-7 presents target-seeking scenarios, demonstrating that environmental goals remain achievable if

1. Immediate and coordinated action is taken
2. System-wide transformations are pursued . Delayed action significantly increases costs and risks.

Core Requirements for Transformation- Ambitious policy frameworks aligned with science Inclusive and participatory governance, involving

1. Governments
2. Civil society
3. Private sector
4. Indigenous Peoples and local communities

Mainstreaming environmental objectives into economic and development decision-making

Four Critical Systems Requiring Transformation

Economic and Financial Systems- Internalise environmental externalities through-

1. Carbon pricing
2. Green taxation
3. Removal of environmentally harmful subsidies

Align public and private finance with sustainability goals.

Materials and Waste Systems- Transition from linear "take-make-dispose" models to a circular economy. Emphasise-

1. Resource efficiency
2. Waste minimisation
3. Recycling and reuse

Energy Systems- Rapid expansion of renewable energy. Phased and just transition away from fossil

fuels. Ensure universal energy access, particularly for developing countries.

Food Systems- Promote

1. Sustainable and nutritious diets
2. Climate-resilient agriculture
3. Reduction of food loss and waste

Strengthen resilience of farmers to climate shocks.

Conclusion

GEO-7 presents a stark warning the window for avoiding irreversible environmental damage is rapidly closing. However, it also offers a roadmap for hope

1. Urgent, systemic transformation can generate benefits far exceeding the costs of action.
2. Successful transformation could yield trillions of dollars in economic gains, while safeguarding ecosystems and human well-being.

The report reinforces that environmental sustainability is not a constraint on development, but a prerequisite for long-term prosperity.

Source- <https://www.unep.org/news-and-stories/video/future-we-choose>

