

Washington, D.C., USA

7 – 9 November 2025



United Nations Environment Assembly Background Guide 2025

Written by Ashley L. Rutenbeck and Eli Sepulveda







NATIONAL MODEL UNITED NATIONS

Dear Delegates,

Welcome to the 2025 National Model United Nations Washington DC Conference (NMUN•DC)! We are pleased to introduce to you our committee, the United Nations Environment Assembly (UNEA). Your committee's work is facilitated by volunteer staff. This year's committee staff are Director Ashley Lynn Rutenbeck and Assistant Director Elias Sepulveda. Ashley, is the vice president of a nonprofit for veterans, and holds a Bachelor's in Public Policy and Administration with certifications in Advancing Sustainable Development and Green Fiscal Policy. Elias (Eli) studies international development and researches global catastrophic risk interventions for a philanthropic fund. The preparation of these materials was supported by Under-Secretary-General Ashlee Ann Rolheiser, and Secretary-General, Alliyah Edwards.

The topics on the agenda for this committee are:

- 1. Ensuring Sustainable Tourism
- 2. Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally

The United Nations Environment Assembly is the highest-level decision-making body on the environment, with universal membership of all Member States and biennial sessions in Nairobi under UNEP's auspices. UNEA sets global environmental priorities, shapes international law, mobilizes financing, and tracks progress toward the 2030 Agenda through resolutions, ministerial declarations, and a multi-stakeholder forum led by an elected Bureau.

This Background Guide serves as an introduction to the topics for this committee. However, it is not intended to replace individual research. We encourage you to explore your Member State's policies in depth and use the bibliography to further your knowledge on these topics. In preparation for the conference, each delegation should submit their Position Papers by 11:59 p.m. (DC Time) on 15 October in accordance with the guidelines in the <u>Position Paper Guide</u> and the <u>DC Position Papers page</u>.

Two resources, available to download from the NMUN website, serve as essential instruments in preparing for the Conference and as a reference during committee sessions:

- The <u>NMUN Delegate Preparation Guide</u>, which explains each step in the delegate process, from
 pre-conference research to the committee debate and resolution drafting processes. Please take
 note of the information on plagiarism and the prohibition on pre-written working papers and
 resolutions.
- The <u>NMUN Rules of Procedure</u>, which includes the long and short form of the rules, as well as an explanatory narrative and example script of the flow of procedure.

In addition, please review the mandatory MMUN Conduct Expectations on the NMUN website. They include the conference dress code and other expectations of all attendees. We want to emphasize that any instances of sexual harassment or discrimination based on race, gender, sexual orientation, national origin, religion, age, or disability will not be tolerated. If you have any questions concerning your preparation for this committee, please contact Under-Secretary-General Ashlee Rolheiser at usgashlee.dc@nmun.org or the Secretary-General, Alliyah Edwards at secgen.dc@nmun.org

We wish you all the best in your preparations and look forward to seeing you at the Conference! Ashley Rutenbeck, Director Elias Sepulveda, Assistant Director



Table of Contents

Committee Overview	3
Introduction	3
Mandate, Functions, and Powers	4
Governance, Structure, and Membership	4
Bibliography	5
1. Ensuring Sustainable Tourism	7
Introduction	7
International and Regional Framework	8
Role of the International System	10
Leveraging Sustainable Consumption and Production in Tourism	12
Promoting Nature-Based Solutions for Tourism	14
Conclusion	15
Further Research	16
Bibliography	17
2. Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally	23
Introduction	23
International and Regional Framework	24
Role of the International System	26
The Impacts of Urbanization on Air Quality	28
Data Sharing and Monitoring of Air Quality Across Borders	29
Conclusion	31
Further Research	31
Bibliography	33



Committee Overview

Introduction

The United Nations Environment Assembly (UNEA) is the primary governing body of the United Nations Environment Programme (UNEP) and is the international community's highest-level decision-making body on environmental matters. In partnership with other United Nations institutions, it outlines the international environmental agenda and sets priorities for the international community. Although its resolutions are not binding, UNEA brings together relevant international actors to address global environmental issues and shape environmental governance.

Mandate, Function and Powers

Twenty years after the adoption of the Rio Declaration on Environment and Development (1992), the United Nations Conference on Sustainable Development called for the strengthening and upgrading of UNEP so it could better execute its mandate.⁴ UNEA was created in 2012 as the successor to UNEP's Governing Council.⁵ Whereas the Governing Council was composed of 58 Member States and sat within UNEP, UNEA is structured as a distinct entity and enjoys universal membership with 193 Member States.⁶ As a high-level governance body, UNEA reviews and coordinates the work of the international community on environmental matters while serving as a forum for and initiator of debates to be continued by other, more specialized bodies.⁷

While the following list is not exhaustive, the mandate of UNEA can be summarized as:

- UNEA will generally: set broad priorities for global environmental policy; identify emerging
 themes in environmental governance; progressively develop international environment law
 and begin negotiations on environmental treaties; define the work and priorities of UNEP;
 create ad-hoc committees and subsidiary bodies to further discussions on specific areas of
 environmental concern when necessary; make recommendations to Member States and
 other international organizations.⁸
- UNEA will not generally: engage in operational projects; complete negotiations on environmental treaties, but rather identify emerging issues and promote an architecture for future environmental governance.⁹

³ United Nations Environment Programme, Q&A: UN Environment Assembly, 2024.

¹ United Nations Environment Assembly. About the United Nations Environment Assembly. N.d.

² Ibid.

⁴ United Nations, General Assembly. The future we want (A/RES/66/288). 2012. p. 18.

⁵ United Nations Environment Assembly. About the United Nations Environment Assembly. N.d.

⁶ Ibid.; United Nations Environment Programme, Governing Council. *Proceedings of the Governing Council at its Nineteenth Session (UNEP/GC.19/34)*. 1997.

⁷ International Institute for Sustainable Development. *The United Nations Environment Assembly's Role as a Governance Architect*. 2022.

⁸ United Nations Environment Programme. What you need to know about the United Nations Environment Assembly, 2024.

⁹ Ibid.; International Institute for Sustainable Development. *The United Nations Environment Assembly's Role as a Governance Architect.* 2022.



UNEA and UNEP are distinct entities. UNEA is the primary governing body and priority-setting mechanism of UNEP and does not operationalize these priorities itself.¹⁰ In contrast, UNEP undertakes programs, projects, and awareness campaigns and provides support to national governments to achieve environmental obligations in line with the priorities set out by UNEA.¹¹

Governance, Funding and Structure

All 193 United Nations Member States are represented in UNEA.¹² The Assembly meets every two years to set priorities for global environmental policy, discuss developments in the area of environmental legislation, and assist in the implementation of the 2030 Agenda for Sustainable Development (2030 Agenda) (2015).¹³

Consisting of ten Ministers who each serve a two-year term and are selected based on geographical rotations, UNEA's Bureau is responsible for the general conduct of business. ¹⁴ UNEA also has a Committee of Permanent Representatives (CPR), a subsidiary inter-sessional organ of UNEA that meets at least four times a year. ¹⁵ The CPR contributes to the preparation of the UNEA agenda, holds an advisory role in policy matters, and monitors the implementation of decisions. ¹⁶ The CPR also holds discussions on key issues, promotes the inclusion of non-resident members of the Committee, and performs other tasks given by UNEA. ¹⁷ The CPR consists of all accredited Permanent Representatives to UNEP and is led by a five-member Bureau that is elected for two years. ¹⁸

UNEP relies on three main financial sources: earmarked funds, the Environment Fund, and the United Nations's regular budget. Earmarked funds, also known as earmarked contributions, are funds appropriated for specific projects, themes, or countries. These funds aim to expand and/or replicate the results of United Nations Environment's work in more countries and in cooperation with more partners. The Environment Fund aids in maintaining the capacity, balance, and efficiency needed for UNEP to function. Earmarked contributions and the Environment Fund are comprised of voluntary contributions; hence, 95% of UNEP's income is received on a voluntary basis from Member States. The United Nations' regular budget supports the regular work of UNEA and the UNEP Secretariat.

¹⁰ Office of the United Nations Secretary-General's Envoy on Youth. *UNEP: United Nations Environment Programme*. N.d.

¹¹ Ihid

¹² United Nations Environment Assembly. About the United Nations Environment Assembly. N.d.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ United Nations Environment Programme. *Committee of Permanent Representatives*. 2024.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ United Nations Environment Programme. How is UNEP funded. 2024.

²⁰ Ibid.; United Nations Environment Programme. *Earmarked Contributions*. 2024.

²¹ Ibid.

²² United Nations Environment Programme. How is UNEP funded. 2024.

²³ Ibid.

²⁴ Ibid.



International Institute for Sustainable Development. *The United Nations Environment Assembly's Role as a Governance Architect*. 2022. Retrieved 27 October 2024 from: https://www.iisd.org/articles/unea-governance

Office of the United Nations Secretary-General's Envoy on Youth. *UNEP: United Nations Environment Programme*. N.d. Retrieved 27 October 2024 from:

https://www.un.org/youthenvoy/2013/08/unep-united-nations-environment-programme/

United Nations Environment Assembly. *Medium-term strategy for the period 2022-2025 and programme of work and budget for the biennium 2022–2023 (UNEP/EA.5/L.3)*. 2021. Retrieved 27 October 2024 from: https://undocs.org/en/UNEP/EA.5/L.3

United Nations Environment Assembly. *About the United Nations Environment Assembly*. N.d. Retrieved 27 October 2024 from:

https://www.unep.org/environmentassembly/about-united-nations-environment-assembly

United Nations Environment Programme. *Committee of Permanent Representatives*. 2024. Retrieved 27 October 2024 from: https://www.unep.org/cpr

United Nations Environment Programme. *Earmarked Contributions*. 2024. Retrieved 27 October 2024 from:

https://www.unep.org/about-un-environment/funding-and-partnerships/funding-facts/earmarked-contributions

United Nations Environment Programme. *How is UNEP funded*. 2024. Retrieved 27 October 2024 from: https://www.unep.org/about-un-environment/funding-and-partnerships/funding-facts

United Nations Environment Programme. Q&A: UN Environment Assembly. 2024. Retrieved 27 October 2024 from: https://www.unep.org/news-and-stories/story/ga-un-environment-assembly

United Nations Environment Programme. What you need to know about the United Nations Environment Assembly. 2024. Retrieved 27 October 2024 from:

https://www.unep.org/news-and-stories/story/what-you-need-know-about-un-environment-assembly

United Nations Environment Programme, Governing Council of the United Nations Environment Programme. *Proceedings of the Governing Council at its Nineteenth Session (UNEP/GC.19/34)*. 1997. Retrieved 27 October 2024 from:

https://wedocs.unep.org/bitstream/handle/20.500.11822/17274/97 GC19 proceedings.pdf

United Nations, General Assembly. *Institutional and financial arrangements for international environmental cooperation (A/RES/2997 (XXVII))*. 1972. Retrieved 27 October 2024 from: https://undocs.org/en/A/RES/2997(XXVII)



United Nations, General Assembly. *The future we want (A/RES/66/288)*. 2012. Retrieved 27 October 2024 from: http://undocs.org/en/A/RES/66/288



1. Ensuring Sustainable Tourism

"We need a global tourism sector that is sustainable – one with deep local value chains that expand demand for locally made products and services in ways that also directly and positively benefit local communities." ²⁵

Introduction

According to the United Nations Environment Programme (UNEP), tourism is one of the largest and fastest growing industries globally, representing approximately 10% of the world's total economic output while employing one out of every ten workers globally.²⁶ Tourism serves as a core component of economic growth as it attracts economic investment, increases exports, and contributes to job opportunities.²⁷ For Small Island Developing States (SIDS), this economic importance is particularly pronounced, with revenue from international tourism accounting for approximately 38% of total export revenue, and some destinations seeing figures as high as 85%.²⁸ However, consumption patterns in the tourism industry can have negative impacts on Member States, communities, and ecosystems.²⁹ In 2011, UNEP's Green Economy Report revealed that if the tourism industry continues to operate as it has been, by 2050, it will have generated increases of 154% in energy consumption, 131% in greenhouse gas (GHG) emissions, 152% in water consumption, and 251% in solid waste disposal.³⁰ For SIDS specifically, unsustainable tourism practices can undermine sustainable economic growth by harming aquatic environments that generate tourism such as coral reefs, beaches, and coastal waters.³¹

Given these challenges, the World Tourism Organization (UN Tourism) emphasizes that ensuring sustainable tourism involves incorporating practices that can maintain the industry's long-term viability through balancing environmental, economic, and socio-cultural dimensions.³² One of these practices is sustainable consumption and production (SCP), which UNEP characterizes as the use of services and goods that support basic needs and improve quality of life while minimizing negative environmental impacts throughout the life cycle of the service or goods provided.³³ This includes practices like prioritizing locally sourced goods, improving energy efficiency, and reducing emissions from transportation.³⁴ Another practice for ensuring sustainable tourism involves protecting biodiversity.³⁵ UNEP defines biodiversity as the diversity within species, between species, ecosystems, and living organisms.³⁶ Given that natural resources, such as beaches and wildlife, account for over 80% of the value generated by the tourism

²⁸ World Tourism Organization. *Tourism in Small Island Developing States (SIDS)*. N.d.

²⁵ United Nations, Department of Global Communications. *Opening Remarks by the President of the General Assembly, Mr. Dennis Francis, at the High-Level Thematic Event on Tourism.* 2024.

²⁶ United Nations Environment Programme. *Tourism*. N.d.

²⁷ Ihid

²⁹ United Nations Environment Programme. *Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems*. 2023.

³⁰ United Nations Environment Programme. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. 2011. pp. 8, 15, 25.

³¹ United Nations, Department of Global Communications. *Tourism 'intrinsically susceptible' to climate shocks, political unrest, pandemic threat.* 2024.

³² World Tourism Organization. Sustainable Development. N.d.

³³ United Nations Environment Programme. Sustainable Consumption and Production Policies. N.d.

³⁴ United Nations Environment Programme. *ABCs of SCP: Clarifying Concepts on Sustainable Consumption and Production*. 2010.

³⁵ United Nations Environment Programme. *Sustainable Consumption and Production Policies*. N.d. ³⁶ Ibid.



industry, preserving biodiversity is an important part of ensuring sustainable tourism because it helps maintain ecosystem health, which supports the industry's resilience to environmental shocks and can attract tourist interest.³⁷

For communities that live near tourism destinations, tourism can have both positive and negative effects. When employed in the sector, tourism can be a source of economic inclusion for women, young people, immigrants, and rural communities. Conversely, it can also have negative effects on Indigenous communities, small-scale fishers, and rural populations through environmental degradation if done without consideration for the cultures and environments that may have initially attracted tourists. To address these challenges, ecotourism can help include local communities in the economic benefits of tourism and mitigate negative social and environmental impacts of tourism. This form of tourism, which UN Tourism defines as travel motivated primarily by appreciating nature and traditional cultures while supporting the maintenance of natural areas, creates opportunities for local communities to benefit economically from the tourism industry. Ecotourism, sustainable public procurement (SPP), and SCP practices all support UNEA's efforts toward making tourism more sustainable in accordance with the *10 Year Framework of Programmes on Sustainable Consumption and Production Patterns* (10YFP) (2012).

International and Regional Framework

In 2012, the United Nations Conference on Sustainable Development was held in Rio and marked the 20-year anniversary of the original 1992 Earth Summit.⁴⁴ The conference recognized the need for collaboration to achieve SCP, and culminated with the adoption of the *10 Year Framework of Programmes on Sustainable Consumption and Production Patterns* (10YFP).⁴⁵ This framework established six programs; Sustainable Public Procurement, Consumer Information for SCP, Sustainable Tourism, Sustainable Lifestyles and Education, Sustainable Buildings and Construction, and Sustainable Food Systems.⁴⁶ These initiatives aim to transform global consumption toward more sustainable patterns that advance broader development goals.⁴⁷ The program on sustainable tourism aims to make SCP a priority in tourism policies to address pollution, biodiversity decline, and climate change, and has since

³⁷ International Union for Conservation of Nature and Natural Resources. *Achieving 30x30: The Role of Nature Positive Tourism in Meeting Global Biodiversity Targets*. 2024; World Tourism Organization. *Biodiversity*. N.d.

³⁸ World Tourism Organization. *Statistical Framework for Measuring the Sustainability of Tourism.* pp. 51, 113.

³⁹ Ibid, p. 51.

 ⁴⁰ United Nations Environment Programme. *Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems*. 2023; Ocean Panel. *Opportunities for Transforming Coastal and Marine Tourism*. 2020. p. 4.
 ⁴¹ World Tourism Organization. *Ecotourism and Protected Areas*. N.d.

⁴² Ibid.

⁴³ United Nations Environment Programme. *Sustainable Consumption and Production (SCP) Targets and Indicators and the SDGs.* 2014. p. 8.

⁴⁴ United Nations, Department of Global Communications. *United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992.* N.d.

⁴⁵ United Nations Environment Programme. *10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns*. N.d.

⁴⁶ United Nations Conference on Sustainable Development. *Letter dated 18 June 2012 from the Permanent Representative of Brazil to the United Nations addressed to the Secretary-General of the United Nations Conference on Sustainable Development.* 2012.

⁴⁷ Ibid.



contributed to guiding national tourism policies.⁴⁸ One of the ways the program aims to do this is through its Global Tourism Plastics Initiative that encourages multi-stakeholders commitments in the tourism industry to report publicly on their environmental impacts and eliminate the use of plastic packaging and single use items by 2030.⁴⁹ Additionally, in 2015, the General Assembly adopted resolution 69/313, "Addis Ababa Action Agenda of the Third International Conference on Financing for Development" (Addis Ababa Action Agenda) (AAAA).⁵⁰ The AAAA emphasizes the importance of sustainable tourism for economic growth and calls for improved economic monitoring, specifically for measuring the development impacts of sustainable tourism.⁵¹

Pursuant to this, in September 2015, the General Assembly adopted resolution 70/1, "Transforming our world: the 2030 Agenda for Sustainable Development" (2030 Agenda), which established the Sustainable Development Goals (SDGs).⁵² Notably, SDG 8 (decent work and economic growth) targets 8.4 on "improving global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation" and 8.9 on "devising and implementing policies to promote sustainable tourism that creates jobs and promotes local culture and products" build upon the 10YFP to encourage resource efficiency in consumption and production, and promote sustainable tourism that supports local cultures and economies. 53 Additionally, SDG 12 (responsible consumption and production) targets 12.8 on "ensuring that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature" and 12b on "developing and implementing tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products" demonstrate further international commitment.54 SDG 14 (life below water) target 14.7 on "increasing the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism" further highlights the 2030 Agenda commitments to SIDS.55

In 2024, *The Sustainable Development Goals Report* highlighted the need for greater progress on data monitoring environmental impacts of tourism to achieve the goals.⁵⁶ Building upon the framework of the SDGs, the *Kunming-Montreal Global Biodiversity Framework* also contributes to sustainable tourism and was adopted at the fifteenth meeting of the Conference of the Parties (COP 15) in 2022.⁵⁷ This framework emphasizes the importance of biodiversity and conservation in sustainable economic development with

⁴⁸ One Planet, Sustainable Tourism Programme, N.d.

⁴⁹ One Planet. *Global Tourism Plastics Initiative*. N.d.

⁵⁰ United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015. ⁵¹ Ibid. p. 36.

⁵² United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1).* 2015.

⁵³ Conference of the Parties to the Convention on Biological Diversity. *Kunming-Montreal Global Biodiversity Framework*. 2022.

⁵⁴ United Nations, Department of Economic and Social Affairs. *Goal 12: Ensure sustainable consumption and production patterns*. N.d.; United Nations, Department of Economic and Social Affairs. *Goal 14: Ensure sustainable consumption and production patterns*. N.d.

⁵⁶ United Nations, Department of Economic and Social Affairs. The Sustainable Development Goals Report. 2024. p. 33.

⁵⁷ Conference of the Parties to the Convention on Biological Diversity. *Kunming-Montreal Global Biodiversity Framework*. 2022.



the goal of halting and reversing biodiversity loss by 2030.⁵⁸ UNEA's work towards ensuring sustainable development has built upon these frameworks through recent sessions, including UNEA's 5th session in 2022 (UNEA-5), where UNEA adopted resolution 5/5, "Nature-based Solutions (NBS) for Supporting Sustainable Development", which emphasizes the need for environmentally beneficial development to improve social, economic, and environmental resilience.⁵⁹ UNEA resolution 5/5 also requested UNEP to support the implementation of NBS.⁶⁰ In addition to this, UNEA-5 also culminated with the adoption of resolution 5/11, "Enhancing Circular Economy as a Contribution to Achieving Sustainable Consumption and Production", which advocates for the implementation of SCP broadly across sectors.⁶¹ Following this, in 2024, the General Assembly adopted resolution 78/260, "International Year of Sustainable and Resilient Tourism, 2027", which declared 2027 as the international year of tourism.⁶² The goal of resolution 78/260 is to promote collaboration between the United Nations system, Member States, and public and private sectors toward making tourism more sustainable.⁶³ The resolution also advocates for inclusive decision-making at all levels through the equal participation of women, youth, older persons, persons with disabilities, Indigenous Peoples, and local communities as stakeholders.⁶⁴

Role of the International System

UNEP is the main coordinating body within the United Nations system for environmental action, working with governments, organizations, and stakeholders to implement environmental policies and programs across various areas like climate change, biodiversity, and pollution, as outlined by UNEA.⁶⁵ In support of the 10YFP, UNEP also supports the Life Cycle Initiative, which is a public-private partnership that provides life cycle knowledge of goods and services to public and private stakeholders in support of sustainable tourism.⁶⁶ The initiative focuses on hotspots or areas facing large environmental impacts from tourism, and identifies causes and engages in multi-stakeholder interventions to address them.⁶⁷ Previously, the Life Cycle Initiative has focused on improving hotel energy efficiency, reducing single-use plastics, and limiting food waste in the Dominican Republic as a hotspot area, and is projected to reduce emissions and food waste 25-50% by 2030.⁶⁸ In addition to the Life Cycle Initiative, UNEP also works with the Global Environment Facility (GEF), which helps fund projects that integrate biodiversity conservation and sustainable tourism, particularly in protected areas and developing economies.⁶⁹

Created in 1990, GEF is jointly managed by the United Nations Development Programme (UNDP), UNEP, and the World Bank to fund climate change, biodiversity, ozone depletion, and international waters projects in developing countries, with 186 member countries participating.⁷⁰ In 2024, UNEA restructured

⁵⁸ Ibid.

⁵⁹ United Nations Environment Assembly. *Nature-based solutions for supporting sustainable development* (UNEP/EA.5/RES.5/5). 2022.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² United Nations, General Assembly. *International Year of Sustainable and Resilient Tourism, 2027 (A/RES/78/260).* 2024.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ United Nations Environment Programme. About the United Nations Environment Programme. N.d.

⁶⁶ United Nations Environment Programme. *The Life Cycle Initiative*. N.d.

⁶⁷ Life Cycle Initiative. *Implementation of Life Cycle Thinking in the Tourism Sector*. N.d.

⁶⁸ Ibid.

⁶⁹ Global Environment Facility. *Projects*. N.d.

⁷⁰ Global Environment Facility. *GEF: How it all Began*. 2016; Global Environment Facility. Partners. N.d.



the GEF through the adoption of UNEA resolution 2: "Amendments to the Instrument for the Establishment of the Restructured Global Environment Facility", which aimed to improve the GEF's capacity for funding partners' conservation and sustainable programs. Its projects have specifically supported initiatives towards protecting freshwater, incorporating SCP practices in businesses, and ecosystem restoration across international organizations such as UNEP, the World Bank, and UNDP. GEF also supports regional initiatives hosted by the Asian Development Bank, the African Development Bank, the Inter-American Development Bank, and the European Bank for Reconstruction and Development to help fund environmental restoration projects.

Beyond these partnerships, UNEP also collaborates with UN Tourism, a specialized United Nations agency, towards promoting and supporting sustainable tourism practices. 74 In 2001, UN Tourism adopted their Global Code of Ethics for Tourism, which encourages sustainable tourism by providing governments and private actors with guiding principles that advocate for local communities, preserving cultural heritage, and implementing environmentally conscientious policies in the tourism sector. 75 The code was officially recognized by the General Assembly in 2002 through resolution 56/212, "Global Code of Ethics for Tourism." In addition to promoting sustainable tourism practices, UN Tourism also supports the SDGs by providing data monitoring via annual questionnaires for Member States to inform SDG targets 8.9.1 on "tourism direct GDP as a proportion of total GDP and in growth rate" and indicator 12.b.1 on "implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability."77 These surveys measure self-reported tourism expenditure, employment by tourism, consumption flows of water and energy, and waste. 78 Another way UN Tourism conducts data monitoring is through the Statistical Framework for Measuring the Sustainability of Tourism (MST). 79 MST was developed by UN Tourism and adopted by the United Nations Statistical Commission in 2024 to define key concepts and data metrics for producing data on the tourism industry.80 UN Tourism also leads the One Planet Initiative in partnership with UNEP to promote knowledge sharing and networking opportunities through best practice guidelines and consultations with public private partnership in support of the 10YFP's Sustainable Tourism Programme.81 One Planet also supports the Global Strategy on SCP, which outlines four pillars for implementing SCP through regional and thematic consultations that emphasize biodiversity friendly policies in private sector tourism.⁸² These four pillars focus on positioning SCP as essential for sustainable development, enabling multi-stakeholder partnerships, empowering

⁷¹ United Nations Environment Assembly. Amendments to the Instrument for the Establishment of the Restructured Global Environment Facility (UNEP/EA.6/RES.2). 2024.

⁷² Global Environment Facility. *Projects*. N.d.

⁷³ Ibid.

⁷⁴ World Tourism Organization. *About Us.* N.d.

⁷⁵ World Tourism Organization. *Global Code of Ethics for Tourism*. N.d.

⁷⁶ World Tourism Organization. *Global Code of Ethics for Tourism*. N.d.

⁷⁷ World Tourism Organization. Sustainable Development Goals (SDGs). N.d.

⁷⁸ World Tourism Organization. Economic Contribution and SDGs. N.d.

⁷⁹ World Tourism Organization. *Statistical Framework for Measuring the Sustainability of Tourism*. 2024.

⁸⁰ World Tourism Organization. *UN Adopts a New Global Standard to Measure the Sustainability of Tourism* 2024

⁸¹ One Planet. Sustainable Tourism Programme. N.d.; World Tourism Organization. One Planet. N.d.

⁸² One Planet. Global Strategy on Sustainable Consumption and Production. N.d.



countries to implement SCP, and developing a global movement for action.⁸³ These pillars were outlined in the original 10YFP and have been supported by subsequent UNEA and UNEP partnerships.⁸⁴

Beyond United Nations agencies and specialized bodies, civil society and regional organizations also host important programming that support sustainable tourism. The International Institute for Sustainable Development (IISD) is a think tank that functions as a SDG knowledge hub and provides technical research and guidance on green public procurement in addition to providing policy analysis on tourism practices. Green public procurement is centered on reducing environmental impacts of public procurement and has the common goal of reducing negative environmental impacts as SCP practices. Additionally, regional initiatives such as the Asia Pacific Green Public Procurement (GPP) Network, Compras Sostenibles, and the Latin America and Caribbean (LAC) working group, all support sustainable public procurement practices that directly impact the tourism sector's environmental footprint, aligning with the goals of 10YFP and supporting One Planet's sustainable public procurement programme.

Leveraging Sustainable Consumption and Production in Tourism

SCP is a guiding practice for reducing the environmental footprint throughout the life cycle of providing goods or services. ⁸⁹ It promotes changes throughout production and consumption systems by helping separate environmental degradation from economic growth, applying life cycle thinking, and supporting opportunities for countries to implement sustainable technologies and practices early in their sectoral development. ⁹⁰ One practice within SCP is SPP, a method for public organizations to procure goods and services that consider the entire lifecycle of a product from design to disposal. ⁹¹ When applied in the tourism sector, SPP can help to minimize the ecological footprint of tourist supply chains by sourcing goods and services from local businesses and producers, thereby resulting in fewer emissions from transport. ⁹² Two key programmes established by the 10YFP to implement SCP and SPP principles are the Sustainable Tourism Programme and the SPP Program. ⁹³ The Sustainable Tourism Programme specifically emphasizes SCP practices to support environmental health by reducing negative

⁸³ Ibid.

⁸⁴ United Nations Environment Programme. *10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns*. N.d.; One Planet. *Sustainable Tourism Programme*. N.d; World Tourism Organization. *One Planet*. N.d.

⁸⁵ One Planet, Sustainable Tourism Programme Members, N.d.

⁸⁶ International Institute for Sustainable Development. *Publications*. N.d.; International Institute for Sustainable Development. *Tourism Recovery and Resilience in Commonwealth Small States: Driving circular economy pathways post-COVID-19*. 2021.

⁸⁷ Green Purchasing Network Malaysia. *A Sampling of Successes in Green Public Procurement*. 2017. p. 43.

⁸⁸ United Nations Environment Programme. *Asia Pacific Green Public Procurement (GPP) Network*. N.d.; United Nations Environment Programme. *Sustainable Public Procurement*. N.d.

⁸⁹ United Nations Environment Programme. Sustainable Consumption and Production Policies. N.d.

⁹⁰ United Nations Environment Programme. Sustainable Consumption and Production Policies. N.d.

⁹¹ One Planet. The Sustainable Public Procurement Programme of the 10-Year Framework of Programmes (10YFP SPP Programme) Principles of Sustainable Public Procurement. 2015; United Nations Environment Programme. 10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns. N.d.

⁹² United Nations Environment Programme. Sustainable Consumption and Production Policies. N.d.

⁹³ United Nations Environment Programme. *10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns*. N.d.



environmental impacts associated with the procurement of goods and services in the tourism sector.⁹⁴ By promoting practices such as local sourcing, resource efficiency, and waste reduction, these SCP practices benefit local communities within touristic areas through localized economic growth.⁹⁵ These practices can include reducing emissions in transport, GHGs, energy consumption, solid waste, and plastics from products and services.⁹⁶ This supports SDG 12 (responsible consumption and production) by improving resource efficiency while reducing waste and environmental impacts.⁹⁷

In 2019, the first comprehensive review of SCP in tourism was published by UN Tourism and highlighted various challenges and recommendations.98 The report revealed that, despite mentions of sustainability in national tourism policies, existing data monitoring was focused on the tourism sector's performance and economic outcomes and did not publicly present SCP specific indicators or monitor the sector's environmental impacts. 99 The lack of formally identified SCP Impact Areas in monitoring systems contributed to gaps in monitoring environmental impacts at national and subnational levels. 100 Given the large role of the private sector in tourism, the report highlighted that tourism policies could encourage public-private partnerships to support reporting and bolster environmental impact monitoring.¹⁰¹ To help address these challenges, UNEA, through UNEP, has developed methodologies on implementing SCP that include policy recommendations and sustainability indicators, in addition to conducting global reviews of SPP to assess implementation. 102 With monitoring from Member States and UNEP, these SPP reviews assess the volume of new contracts with core sustainability focuses, as well as the environmental benefits of procurement, and their contribution toward achieving the SDGs. 103 UN Tourism has since supported SCP implementation through toolkits for policy makers that outline SCP indicators for projects. 104 Regional actors are also supporting the implementation of SCP in the tourism sector. 105 In LAC, the Regional Council of Government Experts on SCP work to provide recommendations to the Forum of Ministers of Environment of LAC in alignment with the 10YFP. 106 This Regional Council was established in 2003 with the express goal of supporting the 10YFP and making recommendations to LAC. 107 A key part of the Council's work involves promoting the Regional SCP Strategy, which specifically highlights sustainable tourism as one of its focal points for integrating SCP practices. 108

^{0/}

⁹⁴ One Planet. Sustainable Tourism Programme. N.d.

⁹⁵ World Tourism Organization. *Tourism in the 2030 Agenda*. N.d.

⁹⁶ United Nations Environment Programme. *ABCs of SCP: Clarifying Concepts on Sustainable Consumption and Production*. 2010.

⁹⁷ World Tourism Organization. *Tourism in the 2030 Agenda*. N.d.

⁹⁸ World Tourism Organization. Baseline Report on the Integration of Sustainable Consumption and Production Patterns into Tourism Policies. 2019.

⁹⁹ World Tourism Organization. *Baseline Report on the Integration of Sustainable Consumption and Production Patterns into Tourism Policies*. 2019. pp. 8-9. ¹⁰⁰ Ibid, pp. 8-9, 63.

¹⁰¹ World Tourism Organization. *Baseline Report on the Integration of Sustainable Consumption and Production Patterns into Tourism Policies*. 2019. p. 9.

¹⁰² One Planet. *Factsheets on Sustainable Public Procurement in National Governments*. 2023. ¹⁰³ Ibid. p. 4.

¹⁰⁴ United Nations Environment Programme. *An Introduction to the Toolkit for 10YFP National Focal Points*, 2017.

¹⁰⁵ United Nations Environment Programme. *Regional Council of Government Experts on Sustainable Consumption and Production*. N.d.

lbid.
 Forum of Ministers of Environment of Latin America and the Caribbean. *Regional Strategy on Sustainable Consumption and Production 2024-2030*. 2024. p. 19.
 lbid.



Promoting Nature-Based Solutions for Tourism

NBS are actions that "protect, conserve, restore, sustainably use and manage" ecosystems while supporting human wellbeing, resilience, and biodiversity. 109 NBS are especially critical in touristic areas that depend upon environmental activities, such as snorkeling or hiking, that could negatively impact SIDS if done without conservation efforts. 110 In the tourism sector, these solutions support SDG 15 (life on land) and SDG 14 (life below water) by prioritizing environmental preservation in touristic interactions with the environment. 111 A key part of NBS includes protecting biodiversity, which is important for the longevity of natural ecosystems and supports the tourism sector by attracting ecotourism and supporting resilience to environmental shocks. 112 Unsustainable tourism practices can specifically harm coastal ecosystems and result in a loss of wildlife, disruption of local fishing industries, and decline in tourist appeal. 113 In addition to negatively impacting the environment and tourism sector, unsustainable tourism practices can also threaten the economic and cultural livelihoods for communities that reside in coastal environments.¹¹⁴ Unsustainable practices of overfishing, pollution, and habitat destruction threaten non-touristic livelihoods for local fishers, and can displace communities that rely on these environments. 115

One challenge to implementing NBS has been the misunderstanding and misuse of the term in projects. which contributes to confusion around what NBS are meant to be. 116 UNEA has made efforts to address this challenge and formally defined NBS in 2022 through the adoption of resolution 5/5: "NBS for Supporting Sustainable Development."117 Beyond clarifying the definition, resolution 5/5 highlighted the need for sharing knowledge and best practices to support effective implementation of NBS across the international community.¹¹⁸ To implement these practices, UNEP has hosted multi-stakeholder consultations, such as the Global Consultation on NBS, to support multiple projects aimed towards integrating NBS in tourism. 119 One example of these projects is the creation of the Integrated Collaborative Approaches for Sustainable Tourism Programme (iCOAST) in 2024. 120 iCOAST is a collaborative project supported by GEF that aims to incentivize multi-stakeholder partnerships ranging

¹⁰⁹ United Nations Environment Assembly. Nature-based solutions for supporting sustainable development (UNEP/EA.5/RES.5). 2022.

¹¹⁰ United Nations Environment Programme. Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems. 2023.

¹¹¹ United Nations, Department of Economic and Social Affairs. *Implementing Nature-based Solutions for* Resilience in the Decade on Ecosystem Restoration, N.d.

¹¹² World Tourism Organization. *Biodiversity*. N.d.

¹¹³ United Nations Environment Programme. Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems, 2023.

¹¹⁴ Ibid; Ocean Panel. Opportunities for Transforming Coastal and Marine Tourism. 2020.

¹¹⁵ Ibid, p. 4.

¹¹⁶ International Union for Conservation of Nature and Natural Resources. Ensuring effective Nature-based Solutions. N.d.

¹¹⁷ United Nations Environment Assembly. Nature-based solutions for supporting sustainable development (UNEP/EA.5/RES.5). 2022. ¹¹⁸ Ibid, p. 8.

¹¹⁹ United Nations Environment Assembly. *Information on the implementation of resolution 5/5 on* nature-based solutions for supporting sustainable development (UNEP/EA.6/INF/5), 2024, pp. 8-9; Ocean Panel. Opportunities for Transforming Coastal and Marine Tourism. 2020; United Nations Environment Programme. First Global Consultation on Nature-based Solutions. N.d.

¹²⁰ Global Environment Facility. Integrated Collaborative Approaches for Sustainable Tourism (iCOAST). N.d.



from local communities, governments, and the private sector to sustainably transform local tourism supply chains. 121 While still in progress, iCOAST's sub-projects are expected to produce assessments of eco-labels for tourism entities, and support low waste technologies for businesses to adopt. 122 This project is implemented through multiple United Nations agencies and executed by local Member State ministries, demonstrating the broad scope of implementation that can be achieved through collaborative mechanisms. 123

The collaborative efforts between the GEF, UNEP, and other United Nations agencies aims to incentivize public, private, and local community partners across 17 Member States to implement sustainable tourism practices to reduce biodiversity loss and resource waste while creating jobs in local communities. These partnerships support projects that have successfully incorporated aspects of NBS to protect biodiversity in the tourism sector. In 2024, Chile, in partnership with UNEP, implemented observation posts to protect bird eggs and set regulatory protections for local wetlands that had been receding as a result of unsustainable tourism in the area, resulting in more wetland biodiversity and a rebound of more sustainable tourism. This project aligns with targets 2 and 3 of the Kunming-Montreal Global Biodiversity Framework, which encourage the restoration and conservation of ecosystems, like wetlands. As another example of NBS, in 2023 Albania created the Vjosa Wild River National Park to address tourism-related environmental concerns while sustainably attracting visitors in consultation with local communities. These two projects align with the best practice of collaborating with local communities in the development of NBS outlined in the UNEA resolution 5/5. Incommunities in the development of NBS outlined in the UNEA resolution 5/5.

Conclusion

Tourism presents various economic and environmental opportunities and challenges in the international community. Unsustainable tourism can be environmentally damaging and threaten the livelihoods of local communities, ecosystems, and undermine sector longevity when dependent upon environmental attractions. Transitioning the tourism sector towards sustainable practices is key to combating projected increases in energy consumption, GHG emissions, water consumption, and waste disposal. UNEA has taken various efforts to help ensure tourism is sustainable for the long term future by emphasizing SCP

¹²¹ Ibid.

¹²² Global Environment Facility. *GEF-8 Program Framework Document*. 2024. pp. 22-26.

¹²³ Global Environment Facility. *Integrated Collaborative Approaches for Sustainable Tourism (iCOAST)*. N.d.

¹²⁴ Ibid

¹²⁵ United Nations Environment Programme. *In Chile, wetlands spring back to life, bringing with them economic opportunities.* 2025.

¹²⁶ Ibid.

¹²⁷ Conference of the Parties to the Convention on Biological Diversity. *Kunming-Montreal Global Biodiversity Framework*. 2022. p. 9.

¹²⁸ United Nations Environment Programme. *In Albania, coupling ecotourism with conservation for economic growth.* 2025.

¹²⁹ United Nations Environment Assembly. *Nature-based solutions for supporting sustainable development (UNEP/EA.5/RES.5)*. 2022.

¹³⁰ United Nations Environment Programme. *Tourism*. N.d.

¹³¹ United Nations Environment Programme. *Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems*. 2023.

¹³² United Nations Environment Programme. *Tourism*. N.d.



practices and NBS.¹³³ This work includes building sustainable practices into key frameworks such as the 10YFP and the Global Code of Ethics for Tourism that encourage SCP and engagement with local communities as equal stakeholders.¹³⁴ These efforts are further strengthened through partnerships with organizations like GEF and One Planet, which support programming aligned with the 10YFP toward environmental stability and economic growth that benefits local communities.¹³⁵ Building on these partnership efforts, collaborative engagement between governments, private sector stakeholders, civil society groups, and local communities remain important for effectively implementing sustainable tourism practices and addressing existing gaps in monitoring and planning.¹³⁶

Further Research

As delegates conduct further research and consider how to address this topic, they should consider: How can environmental sustainability be integrated into the tourism sector? How can multi-stakeholder partnerships support sustainable tourism? How can sustainable tourism practices be leveraged to include local communities in economic growth? How can financial barriers to sustainably transitioning the tourism sector be overcome? What role can technology and innovation play in supporting sustainable tourism practices? How can the international community improve the MST and data collection systems for sustainable tourism goals?

-

¹³³ United Nations Environment Assembly. *Nature-based solutions for supporting sustainable development (UNEP/EA.5/RES.5)*. 2022.

¹³⁴ United Nations Environment Programme. 10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns. N.d.; World Tourism Organization. Global Code of Ethics for Tourism. N.d.

¹³⁵ United Nations Environment Programme. 10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns. N.d.

¹³⁶ United Nations Environment Assembly. *Nature-based solutions for supporting sustainable development (UNEP/EA.5/RES.5)*. 2022.



Conference of the Parties to the Convention on Biological Diversity. *Kunming-Montreal Global Biodiversity Framework*. 2022. Retrieved 17 March 2025 from:

https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf

Forum of Ministers of Environment of Latin America and the Caribbean. *Regional Strategy on Sustainable Consumption and Production 2024-2030.* 2024. Retrieved 18 March 2025 from: https://drive.google.com/file/d/1ithT7WsFOsphsfhyegBLxqtKJCiLrHtK/view

Global Environment Facility. *GEF-8 Program Framework Document*. 2024. Retrieved 31 May 2025 from: https://publicpartnershipdata.azureedge.net/gef/GEFProjectVersions/fbd6b2b5-eb6e-ef11-a671-6045bd06b2b9-PIF.pdf

Global Environment Facility. *GEF: How it all Began*. 2016. Retrieved 31 May 2025 from: https://www.theqef.org/newsroom/news/qef-how-it-all-began

Global Environment Facility. *Integrated Collaborative Approaches for Sustainable Tourism (iCOAST)*. N.d. Retrieved 18 March 2025 from: https://www.thegef.org/projects-operations/projects/11729

Global Environment Facility. Partners. N.d. Retrieved 31 May 2025 from: https://www.thegef.org/partners

Global Environment Facility. *Projects*. N.d. Retrieved 18 March 2025 from: https://www.thegef.org/projects-operations/database

Global Environment Facility. *Who We Are*. N.d. Retrieved 18 March 2025 from: https://www.thegef.org/who-we-are

Green Purchasing Network Malaysia. *A Sampling of Successes in Green Public Procurement*. 2017. Retrieved 31 May 2025 from:

https://www.oneplanetnetwork.org/sites/default/files/case studies 140317 web.pdf

International Institute for Sustainable Development. *Publications*. N.d. Retrieved 18 March 2025 from: https://www.iisd.org/publications

International Institute for Sustainable Development. *Tourism Recovery and Resilience in Commonwealth Small States: Driving circular economy pathways post-COVID-19*. 2021. Retrieved 18 March 2025 from: https://www.iisd.org/articles/tourism-recovery-resilience-commonwealth-small-states-circular-economy

International Union for Conservation of Nature and Natural Resources. *Achieving 30x30: The Role of Nature Positive Tourism in Meeting Global Biodiversity Targets*. 2024. Retrieved 16 March 2025 from: https://iucn.org/story/202409/achieving-30x30-role-nature-positive-tourism-meeting-global-biodiversity-targets



International Union for Conservation of Nature and Natural Resources. *Ensuring effective Nature-based Solutions*. N.d. Retrieved 18 March 2025 from:

https://iucn.org/resources/issues-brief/ensuring-effective-nature-based-solutions

Life Cycle Initiative. *Implementation of Life Cycle Thinking in the Tourism Sector.* N.d. Retrieved 31 May 2025 from:

https://www.lifecvcleinitiative.org/activities/life-cvcle-assessment-in-high-impact-sectors/tourism/

Ocean Panel. *Opportunities for Transforming Coastal and Marine Tourism*. 2020. Retrieved 16 March 2025 from: https://oceanpanel.org/wp-content/uploads/2022/06/Sustainable-Tourism-Full-Report.pdf

One Planet. Factsheets on Sustainable Public Procurement in National Governments. 2023. Retrieved 16 March 2025 from:

https://www.oneplanetnetwork.org/knowledge-centre/resources/factsheets-sustainable-public-procurement-national-governments

One Planet. *Global Strategy on Sustainable Consumption and Production*. N.d. Retrieved 16 March 2025 from: https://www.oneplanetnetwork.org/globalstrategy

One Planet. *Global Tourism Plastics Initiative*. N.d. Retrieved 31 May 2025 from: https://www.oneplanetnetwork.org/programmes/sustainable-tourism/global-tourism-plastics-initiative

One Planet. *Sustainable Tourism Programme*. N.d. Retrieved 16 March 2025 from: https://www.oneplanetnetwork.org/programmes/sustainable-tourism/about

One Planet. *Sustainable Tourism Programme Knowledge Centre*. N.d. Retrieved 16 March 2025 from: https://www.oneplanetnetwork.org/programmes/sustainable-tourism/knowledge-centre

One Planet. *Sustainable Tourism Programme Members*. N.d. Retrieved 16 March 2025 from: https://www.oneplanetnetwork.org/programmes/sustainable-tourism/about/members

One Planet. The Sustainable Public Procurement Programme of the 10-Year Framework of Programmes (10YFP SPP Programme) Principles of Sustainable Public Procurement. 2015. Retrieved 16 March 2025 from:

https://www.oneplanetnetwork.org/sites/default/files/10yfp spp programme principles of sustainable public_procurement.pdf

United Nations Conference on Sustainable Development. Letter dated 18 June 2012 from the Permanent Representative of Brazil to the United Nations addressed to the Secretary-General of the United Nations Conference on Sustainable Development. 2012. Retrieved 4 May 2025 from: https://docs.un.org/en/A/CONF.216/5

United Nations, Department of Economic and Social Affairs. *Goal 12: Ensure sustainable consumption and production patterns*. N.d. Retrieved 19 March 2025 from: https://sdgs.un.org/goals/goal12



United Nations, Department of Economic and Social Affairs. *Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development*. N.d. Retrieved 19 March 2025 from: https://sdgs.un.org/goals/goal14

United Nations, Department of Economic and Social Affairs. *Implementing Nature-based Solutions for Resilience in the Decade on Ecosystem Restoration*. N.d. Retrieved 19 March 2025 from: https://sdgs.un.org/partnerships/implementing-nature-based-solutions-resilience-decade-ecosystem-restoration#targets-tab

United Nations, Department of Economic and Social Affairs. *The Sustainable Development Goals Report.* 2024. Retrieved 31 May 2025

from: https://unstats.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf

United Nations, Department of Global Communications. *United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992*. N.d. Retrieved 4 May 2025 from: https://www.un.org/en/conferences/environment/rio1992

United Nations, Department of Global Communications. *The Sustainable Development Goals Report Special Edition*. 2023. Retrieved 4 May 2025 from:

https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf

United Nations, Department of Global Communications. *Opening Remarks by the President of the General Assembly, Mr. Dennis Francis, at the High-Level Thematic Event on Tourism.* 2024. Retrieved 4 May 2025 from:

https://www.un.org/pga/78/2024/04/16/pga-opening-remarks-at-the-high-level-thematic-event-on-tourism/

United Nations, Department of Global Communications. *Tourism 'intrinsically susceptible' to climate shocks, political unrest, pandemic threat.* 2024. Retrieved 19 March 2025 from: https://news.un.org/en/story/2024/04/1148641

United Nations Environment Assembly. *Amendments to the Instrument for the Establishment of the Restructured Global Environment Facility (UNEP/EA.6/RES.2)*. 2024. Retrieved 16 March 2025 from: http://undocs.org/en/UNEP/EA.5/Res.2

United Nations Environment Assembly. *Information on the implementation of resolution 5/5 on nature-based solutions for supporting sustainable development (UNEP/EA.6/INF/5)*. 2024. Retrieved 16 March 2025 from: http://undocs.org/en/UNEP/EA.6/INF/5

United Nations Environment Programme. 10YFP - 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns. N.d. Retrieved 18 March 2025 from:

https://www.unep.org/explore-topics/resource-efficiency/what-we-do/one-planet-network/10yfp-10-year-fra mework-programmes

United Nations Environment Programme. *ABCs of SCP: Clarifying Concepts on Sustainable Consumption and Production*. 2010. Retrieved 31 May 2025 from:

https://sustainabledevelopment.un.org/content/documents/945ABC_ENGLISH.pdf



United Nations Environment Programme. *About the United Nations Environment Programme*. N.d. Retrieved 17 March 2025 from: https://www.unep.org/who-we-are/about-us

United Nations Environment Programme. *Asia Pacific Green Public Procurement (GPP) Network*. N.d. Retrieved 17 March 2025 from:

https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-public-procurement/asia-pacific-green

United Nations Environment Programme. *First Global Consultation on Nature-based Solutions*. N.d. Retrieved 4 May 2025 from:

https://www.unep.org/events/working-group/first-global-consultation-nature-based-solutions

United Nations Environment Programme. *In Albania, coupling ecotourism with conservation for economic growth* . 2025. Retrieved 16 March 2025 from:

https://www.unep.org/technical-highlight/albania-coupling-ecotourism-conservation-economic-growth

United Nations Environment Programme. *In Chile, wetlands spring back to life, bringing with them economic opportunities*. 2025. Retrieved 18 March 2025 from:

https://www.unep.org/news-and-stories/story/chile-wetlands-spring-back-life-bringing-them-economic-opportunities

United Nations Environment Programme. *An Introduction to the Toolkit for 10YFP National Focal Points*. 2017. Retrieved 4 May 2025 from: https://www.oneplanetnetwork.org/sites/default/files/introduction.pdf

United Nations Environment Programme. *Primer 2: Nature-based Solutions in Oceans and Coastal Ecosystems*. 2023. Retrieved 4 May 2025 from:

https://www.unepfi.org/wordpress/wp-content/uploads/2023/06/Primer-2-Marine-coastal-ecosystems.pdf

United Nations Environment Programme. *Regional Council of Government Experts on Sustainable Consumption and Production*. N.d. Retrieved 16 March 2025 from:

https://www.unep.org/regional-council-government-experts-sustainable-consumption-and-production

United Nations Environment Programme. *Sustainable Consumption and Production Policies*. N.d. Retrieved 16 March 2025 from:

https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-consumption-and-produc tion-policies

United Nations Environment Programme. Sustainable Consumption and Production (SCP) Targets and Indicators and the SDGs. 2014. Retrieved 4 May 2025 from:

https://www.iisd.org/system/files/publications/scp_targets_indicators_unep.pdf

United Nations Environment Programme. *Sustainable Public Procurement*. N.d. Retrieved 4 May 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-public-procurement



United Nations Environment Programme. *The Life Cycle Initiative*. N.d. Retrieved 16 March 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/life-cycle-initiative

United Nations Environment Programme. *Tourism*. N.d. Retrieved 16 March 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/responsible-industry/tourism

United Nations Environment Programme. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. 2011. Retrieved 3 May 2025 from: https://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf

United Nations, General Assembly. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) (A/RES/69/313)*. 2015. Retrieved 16 March 2025 from: http://undocs.org/en/A/RES/69/313

United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015. Retrieved 17 March 2025 from: http://undocs.org/en/A/RES/70/1

United Nations, General Assembly. *International Year of Sustainable and Resilient Tourism*, 2027 (A/RES/78/260). 2024. Retrieved 17 March 2025 from: http://undocs.org/en/A/RES/78/260

World Tourism Organization. *About Us.* N.d. Retrieved 17 March 2025 from: https://www.unwto.org/about-us

World Tourism Organization. *Baseline Report on the Integration of Sustainable Consumption and Production Patterns into Tourism Policies*. 2019. Retrieved 20 March 2025 from: https://www.e-unwto.org/doi/epdf/10.18111/9789284420605

World Tourism Organization. *Biodiversity*. N.d. Retrieved 20 March 2025 from: https://www.unwto.org/sustainable-development/biodiversity

World Tourism Organization. *Economic Contribution and SDGs*. N.d. Retrieved 31 May 2025 from: https://www.unwto.org/tourism-statistics/economic-contribution-SDG

World Tourism Organization. *Ecotourism and Protected Areas*. N.d. Retrieved 3 May 2025 from: https://www.unwto.org/sustainable-development/ecotourism-and-protected-areas

World Tourism Organization. *Global Code of Ethics for Tourism*. N.d. Retrieved 16 March 2025 from: https://www.unwto.org/global-code-of-ethics-for-tourism

World Tourism Organization. *One Planet*. N.d. Retrieved 4 May 2025 from: https://www.unwto.org/sustainable-development/one-planet

World Tourism Organization. *Sustainable Development*. N.d. Retrieved 16 March 2025 from: https://www.unwto.org/sustainable-development



World Tourism Organization. *Sustainable Development Goals (SDGs)*. N.d. Retrieved 16 March 2025 from: https://www.unwto.org/tourism-statistics/sdg-indicators

World Tourism Organization. *Tourism in Small Island Developing States (SIDS)*. N.d. Retrieved 16 March 2025 from: https://www.unwto.org/sustainable-development/small-islands-developing-states

World Tourism Organization. *Tourism in the 2030 Agenda*. N.d. Retrieved 16 March 2025 from: https://www.unwto.org/tourism-in-2030-agenda

World Tourism Organization. *Statistical Framework for Measuring the Sustainability of Tourism*. 2024. Retrieved 16 March 2025 from:

https://unstats.un.org/UNSDWebsite/statcom/session_55/documents/BG-4a-SF-MST-E.pdf

World Tourism Organization. *UN Adopts a New Global Standard to Measure the Sustainability of Tourism*. 2024. Retrieved 31 May 2025 from:

https://www.unwto.org/news/un-adopts-a-new-global-standard-to-measure-the-sustainability-of-tourism.



2. Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally

Introduction

Air pollution remains one of the most pressing environmental challenges globally, with the United Nations Environment Programme (UNEP) reporting that it is the cause of over 8 million premature deaths annually around the world. Air pollution, as defined by the World Health Organization (WHO), is the presence of harmful chemical, physical, or biological substances in indoor or outdoor environments that disrupt the natural composition of the atmosphere. Nearly the entire global population, at 99%, breathes air with pollutant levels exceeding WHO guidelines, making it a critical factor in both climate change mitigation efforts and addressing the impacts of urbanization on air quality globally. Recognizing the need for collective action, the United Nations Environment Assembly (UNEA) recently adopted resolution 6/10 (2024), Promoting Regional Cooperation on Air Pollution to Improve Air Quality Globally", emphasizing the critical role of regional collaboration in tackling transboundary air pollution by urging Member States to enhance frameworks, share best practices, and invest in clean technologies across key sectors like energy and transportation. UNEA underscores that fostering such partnerships can not only improve air quality but also contribute to mitigating climate change, protecting biodiversity, and reducing the economic burden of pollution-related healthcare costs. Provided Provi

According to the World Bank, air pollution's economic burden on health and well-being reaches an estimated USD \$8.1 trillion globally each year. Regional cooperation plays a vital role in tackling air pollution, although 95% of the world's population lives in countries that have signed international agreements to reduce it, there are still significant gaps in implementation, infrastructure, and knowledge-sharing. UNEA operates alongside UNEP to further sustainable development practices that balance the needs of economic advancement and environmental preservation. He United Nations Department of Political and Peacebuilding Affairs (DPPA) emphasizes that strengthening regional cooperation is vital to overcoming persistent challenges such as differing institutional structures, limited capacities, and communication gaps that have hindered effective coordination in the past. As the United Nations core body for conflict prevention and mediation, DPPA highlights the value of regional organizations, which often have deeper insight into local political, social, and environmental dynamics.

¹³⁷ United Nations Environment Programme. *Pollution Action Note - Data you need to know.* 2023.

¹³⁸ United Nations, World Health Organization. *Air pollution*. 2025.

¹³⁹ Ihid

¹⁴⁰ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10*). 2024. p. 2.
¹⁴¹ Ibid. p. 1.

¹⁴² BioMed Central. *The costs, health and economic impact of air pollution control strategies: a systematic review.* 2024.

¹⁴³ United Nations Environment Programme. *Why does environment, health and pollution matter?*. 2025; United Nations Environment Programme. *Pollution Action Note - Data you need to know*. 2023.

¹⁴⁴ United Nations Environment Programme. Why does environment, health and pollution matter?. 2025.

¹⁴⁵ United Nations, Department of Political and Peacebuilding Affairs. *Partnerships and Cooperation*. 2018.

¹⁴⁶ Ibid.



DPPA notes that stronger collaboration, including increased cross-border data sharing and air quality monitoring, is essential for a more coordinated and effective global response to improving air quality.¹⁴⁷

International and Regional Framework

In 1979, the *Convention on Long-Range Transboundary Air Pollution* (CLRTAP) was adopted under the United Nations Economic Commission for Europe (UNECE) to address the issue of air pollution crossing national borders. This sets the foundation for international cooperation on air quality, leading to several protocols targeting pollutants like sulfur, nitrogen oxides, and volatile organic compounds. The Convention demonstrated how regional collaboration can successfully reduce emissions, influencing later UNEP and UNEA initiatives for global air pollution governance. UNEP supported the development of this landmark treaty, which became one of the first intergovernmental agreements to promote regional cooperation on air quality beyond a single region.

UNEA adopted resolution 1/7 in 2014 "Strengthening the role of the United Nations Environment Programme in promoting air quality", reaffirming UNEP's existing mandate to lead efforts in improving air quality and calls for strengthened action to address air pollution globally. 152 UNEA resolution 1/7 highlights the importance of tackling transboundary air pollution by promoting regional and international cooperation, encouraging partnerships among governments and United Nations bodies, such as WHO and UNECE. 153 Resolution 1/7 requests UNEP to facilitate capacity building and the support of regional frameworks, such as the UNECE 1979 CLRAP to ensure more coordinated and effective air quality management worldwide. 154 Subsequently, UNEA resolution 3/8, "Preventing and reducing air pollution to improve air quality globally", was adopted in 2017, calling on Member States to take action to reduce and prevent air pollution by setting more effective pollution standards and strengthening air quality monitoring.¹⁵⁵ Resolution 3/8 is based on principles established by UNEA resolution 1/7 and called for enhanced efforts like encouraging governments to participate in clean air initiatives, promote synergies between clean air policies and other sectors, and strengthen intergovernmental cooperation to prevent and reduce air pollution, recognizing its significant impact on health, the environment, and economies.¹⁵⁶ Resolution 3/8 emphasizes knowledge-sharing and support on the financial level particularly for developing countries in order to address air pollution and mitigate its health, environmental, and economic impacts. 157 Since the

¹⁴⁷ Ibid.

¹⁴⁸ United Nations Economic Commission for Europe. *1979 Convention on Long-Range Transboundary Air Pollution*. 1979. p. 1.

¹⁴⁹ Ibid. pp. 3-4.; United Nations Economic Commission for Europe. *2024–2025 Work plan for the Implementation of the Convention on Long-range Transboundary Air Pollution*. 2023.

¹⁵⁰ United Nations Economic Commission for Europe. 1979 Convention on Long-Range Transboundary Air Pollution. 1979. p. 2; United Nations Economic Commission for Europe. 2024–2025 Work plan for the Implementation of the Convention on Long-range Transboundary Air Pollution. 2023.

¹⁵¹ United Nations Economic Commission for Europe. *Long-term strategy for the Convention on Long-range Transboundary Air Pollution for 2020–2030 and beyond (Decision 2018/5)*. 2018. p. 14. ¹⁵² United Nations Environment Assembly. *Strengthening the role of the United Nations Environment Programme in promoting air quality (UNEP/EA.1/RES.7)*. 2014. pp. 2, 5-6.

¹⁵³ Ibid. pp. 1, 5.

¹⁵⁴ Ibid. p. 8.

¹⁵⁵ United Nations Environment Assembly. *Preventing and reducing air pollution to improve air quality globally (UNEP/EA.3/RES.8)*. 2017. pp. 3-4.

¹⁵⁶ Ibid. pp. 1-3.

¹⁵⁷ Ibid.



adoption of UNEA resolution 1/7, UNEA resolution 6/10 (2024), "Promoting regional cooperation on air pollution to improve air quality globally", has built on its foundation by further promoting regional partnerships through a global network for air quality engagement called the Global Air Quality Cooperation Network.¹⁵⁸ The network fosters cooperation by helping Member States strengthen their monitoring capabilities, offering technical support, and providing a global online space to share information and best practices on air quality.¹⁵⁹ UNEA resolution 6/10 also encourages the implementation of updated WHO air quality guidelines.¹⁶⁰ The WHO European Centre for Environment and Health is responsible for updating the air quality guidelines based on the latest scientific evidence, UNEA encourages Member States to use these updated guidelines, to align national standards with current scientific understanding.¹⁶¹

UNEA has highlighted the critical importance of addressing air pollution, which undermines progress toward several Sustainable Development Goals (SDGs) adopted by the General Assembly, in resolution 70/1, "Transforming our world: the 2030 Agenda for Sustainable Development" (2030 Agenda), in 2015. 162 SDG 3 (good health and well-being), particularly target 3.9, which seeks to decrease fatalities and health issues caused by harmful air pollution. 163 Similarly, SDG 11 (sustainable cities and communities), under target 11.6, seeks to improve urban air quality by reducing pollution's environmental impact. 164 Additionally, SDG 7 (affordable and clean energy), primarily Target 7.2 promotes the expansion of renewable energy sources, which is essential in reducing emissions. 165 According to the Sustainable Development Goals Report 2024, the world is facing major challenges in achieving the SDGs, with just six years left, efforts are still falling short. 166 Under SDG 3 (good health and well-being), the global response to infectious diseases has advanced, but ongoing environmental threats like air pollution continue to persist. 167 For SDG 7 (affordable and clean energy), despite a decrease in the number of people relying on polluting fuels, progress remains uneven. 168 Under SDG 11 (sustainable cities and communities), although some progress has been made in reducing pollution, cities are still growing which puts more pressure on air quality and sustainable development. 169 The World Bank Group, in collaboration with the United Nations, significantly contributes to the advancement of the SDGs by combining dual objectives of eradicating poverty and promoting equitable development.¹⁷⁰ The World Bank aids nations through financial support, data provision, and implementation assistance to facilitate the achievement of the SDGs. 171

¹⁵⁸ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10)*. 2024.
¹⁵⁹ Ibid.

¹⁶⁰ United Nations, World Health Organization. *WHO global air quality guidelines*. 2021; United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10)*. 2024.

¹⁶¹ United Nations, World Health Organization. WHO global air quality guidelines. 2021.

¹⁶² United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1)*. 2015.

¹⁶³ Ibid. p. 16.

¹⁶⁴ Ibid. pp. 21-22.

¹⁶⁵ Ibid. p. 19.

¹⁶⁶ United Nations Department of Economic and Social Affairs. *The Sustainable Development Goals Report*. 2024. p. 2.

¹⁶⁷ Ibid. p. 12.

¹⁶⁸ Ibid. p. 22.

¹⁶⁹ Ibid. pp. 30-31.

¹⁷⁰ World Bank Group. World Bank Group and The 2030 Agenda. 2025.

¹⁷¹ Ibid.



The General Assembly adopted resolution 71/256 (2016) on the "New Urban Agenda" at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in 2016. 172 A universal action plan that reconceptualizes how cities are planned and developed to ensure they are safe, inclusive, and sustainable, fostering cooperation across all sectors of government. 173 The New Urban Agenda reaffirms a commitment to leaving no one behind, safeguarding the planet, and respecting all human rights. 174 In 2022, the General Assembly adopted resolution 76/300, "The human right to a clean, healthy and sustainable environment", highlighting the interconnection between environmental protection and human rights, emphasizing the severe impacts of pollution, climate change, and biodiversity loss on vulnerable populations.¹⁷⁵ Resolution 76/300 calls for Member States and international organizations to enhance international cooperation and adopt policies to ensure environmental sustainability. 176 Resolution 76/300 reaffirms existing international commitments like the Universal Declaration of Human Rights (UDHR) (1945) which reinforces the fundamental human rights that are universal, indivisible, and interdependent.¹⁷⁷ Specifically, Article 25 highlights the right to an adequate standard of living, which includes access to a sustainable ecosystem, amplifying the importance of addressing pollution as a key factor in ensuring the health and well-being of all individuals. 178

Resolution 76/300 also reaffirms the Declaration on the Right to Development (1986) adopted in General Assembly resolution 41/128 (1986), recognizing development as a human right that must integrate environmental sustainability. 179 The recent adoption of UNEA resolution 6/10, addresses the need to strengthen regional cooperation to combat air pollution, recognizing its severe health, environmental, and economic impacts. 180 Building on previous resolutions, UNEA resolution 6/10 highlights the disproportionate impact of air pollution on vulnerable populations and stresses the need for global collaboration, data-sharing, capacity-building, and policy coordination to improve air quality.¹⁸¹

Role of the International System

UNEA, established as the governing body of UNEP, works to assess global air quality trends, track policy progress, and support Member States in implementing effective measures to mitigate air pollution. 182 By leveraging data from the Actions on Air Quality Report (2022), which evaluates national responses to UNEA resolution 3/8, UNEP helps identify gaps, promote best practices. 183 UNEP also facilitates international cooperation to reduce fine particulate matter (PM2.5) exposure and improve public health

¹⁷² United Nations, General Assembly. New Urban Agenda (A/RES/71/256). 2017. p. 1.

¹⁷³ Ibid. pp. 3, 5.

¹⁷⁴ Ibid. p. 7.

¹⁷⁵ United Nations, General Assembly. The human right to a clean, healthy and sustainable environment (*A/RES*/76/300). 2022. pp. 1-3. ¹⁷⁶ lbid. p. 3.

¹⁷⁷ Ibid. p. 3.

¹⁷⁸ United Nations, General Assembly, *Universal Declaration of Human Rights (A/RES/217 A (III))*, 1948. ¹⁷⁹ United Nations, General Assembly. The human right to a clean, healthy and sustainable environment (A/RES/76/300). 2022. p. 1.

¹⁸⁰ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air* quality globally (UNEP/EA.6/RES.10). 2024. p. 2.

¹⁸² United Nations Environment Programme. Air Pollution Series Actions on Air Quality. 2022. ¹⁸³ Ibid.



outcomes worldwide.¹⁸⁴ Established in 2012 and operating under UNEP, the Climate and Clean Air Coalition (CCAC) is a voluntary alliance of over 160 partners, including governments, international organizations, and civil society groups, working together to tackle air pollution and climate challenges.¹⁸⁵ In 2024, the CCAC launched the Clean Air Flagship, a focused three-year effort aimed at accelerating action to improve air quality and safeguard public health.¹⁸⁶ The Clean Air Flagship supports countries in their efforts to cut harmful emissions and pollutants, while prioritizing regional collaboration, science-based policymaking, and public outreach to achieve cleaner air and broader societal benefits.¹⁸⁷

Intergovernmental Panel on Climate Change (IPCC) is the leading international organization assessing the science of climate change and its impacts, including those on air quality. Established in 1988 by UNEP and the World Meteorological Organization, the IPCC provides policymakers with scientific assessments that guide global efforts to address climate change. Reports published by IPCC have shaped many well known international agreements like the *Kyoto Protocol* adopted in 1997 at the third session of the *United Nations Framework Convention on Climate Change* (COP3) (1997), to reduce greenhouse gas (GHG) emissions. In 2007, the IPCC was awarded a Nobel Peace Prize for their work in raising awareness about human-induced climate change. In IPCC worked with scientists from across the globe to compile reliable, evidence-based research so that individuals and governments could better understand the causes, impacts, and potential solutions to climate change.

The United Nations Economic Commission for Europe (UNECE) was established in 1947 by the United Nations Economic and Social Council (ECOSOC), and it is one of five regional commissions that primarily focuses on Europe, but can have global implications. UNECE brings together 56 Member States from North America, Europe, and Asia to promote economic integration and regional cooperation. UNECE is currently working alongside UNEA to address the triple plenary crisis, this includes pollution, climate instability, and ecosystem degradation. The role of UNECE was acknowledged at the sixth session of the UNEA (UNEA-6) in 2024 for its longstanding efforts in areas such as air pollution and environmental rights. UNECE has been successful in reducing pollution and promoting sustainable development by offering a variety of multilateral environmental agreements, like the *Convention on the Protection and Use of Transboundary Watercourses and International Lakes* (1992) that helps enhance water quality and biodiversity, as well as the *Convention on Environmental Impact Assessment in a Transboundary Context* (1991) which ensures environmental factors are at the center of the development of policies and programs. 197

¹⁸⁴

¹⁸⁵ United Nations Environment Programme. Climate and Clean Air Coalition (CCAC). 2025.

¹⁸⁶ The Climate and Clean Air Coalition. *Clean Air Flagship 2024-2026*. 2023.

¹⁸⁷ Ihid

¹⁸⁸ Intergovernmental Panel on Climate Change. *History of the IPCC*. 2025.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ United Nations Economic Commission for Europe. *Mission*. 2025.

¹⁹⁴ Ibid.

¹⁹⁵ United Nations Economic Commission for Europe. *UN Environment Assembly highlights rising global role of UNECE Multilateral Environmental Agreements to address triple planetary crisis*. 2024. ¹⁹⁶ Ibid.

¹⁹⁷ Ibid.



As part of its mission to promote sustainable urbanization, the United Nations Human Settlements Programme (UN-Habitat) publishes the *World Cities Report* biennial, offering in-depth analysis of global urbanization trends and solutions.¹⁹⁸ The most recent edition, released in 2024 titled "Cities and Climate Action", focuses on how cities can lead the fight against climate change through sustainable planning, improved air quality, and inclusive urban development.¹⁹⁹ As the world's leading authority on environmental decision-making, UNEA-6 convened at UNEP headquarters in Kenya, bringing together global leaders from over 190 Member States to confront the triple planetary crisis.²⁰⁰ With the adoption of 15 groundbreaking resolutions, UNEA-6 set the stage for bold, collective action to safeguard the planet and drive sustainable development.²⁰¹ Among these, UNEA resolution 6/6 (2024), "Fostering national action to address global environmental challenges through increased cooperation between the United Nations Environment Assembly, the United Nations Environment Programme and multilateral environmental agreements" emphasized the significance of regional collaboration and enhanced environmental policies that support joint action on transboundary air pollution challenges.²⁰² A central message from UNEA-6 was the urgent need for immediate action, as world leaders and experts warned that time is running out to address the interconnected crises of climate change and pollution.²⁰³

The Impacts of Urbanization on Air Quality

Urbanization is a major driver of air pollution, with GHG emissions from transportation and buildings often spilling over into neighboring regions through transboundary pollution.²⁰⁴ Buildings contribute to greenhouse gas emissions through the energy used for lighting, heating, cooling, as well as from the production of materials used during construction like cement and steel.²⁰⁵ As urban areas expand, they account for a significant share of global GHG.²⁰⁶ According to UNEP estimates, urban cities produce roughly 70% of global carbon dioxide emissions, with transportation being among the biggest sources.²⁰⁷ Addressing air pollution from urbanization is particularly crucial for countries with large, densely populated cities in close proximity, as they share ecosystems and transportation networks, leading to common environmental challenges.²⁰⁸ UNEP launched the Joint Work Programme on Cities and Climate Change, in partnership with the World Bank, and UN-Habitat in 2010, facilitated by Cities Alliance, a global partnership that supports sustainable urban development.²⁰⁹ This initiative helps local and national governments, particularly in developing countries, advance urban climate adaptation and mitigation efforts

¹⁹⁸ United Nations Human Settlements Programme. *Cities and Climate Action World Cities Report*. 2024.

¹⁹⁹ Ibid.

²⁰⁰ United Nations Environment Assembly. *Outcomes of UNEA-6*. 2025.

²⁰¹ Ibid.

²⁰² Ibid.

²⁰³ United Nations Environment Programme. Six key moments from UNEA-6. 2024.

²⁰⁴ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10)*. 2024; United Nations Environment Programme. *Cities and climate change*. 2025.

²⁰⁵ United Nations Environment Programme. *Here's how buildings contribute to climate change – and what can be done about it.* 2025.

²⁰⁶ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10)*. 2024; United Nations Environment Programme. *Cities and climate change*. 2025.

²⁰⁷ United Nations Environment Programme. Cities and climate change. 2025.

²⁰⁸ Ibid.

²⁰⁹ Ibid.



through awareness initiatives and training.²¹⁰ One notable outcome of this initiative is the successful application of the Urban Community Resilience Assessment (UCRA) (2017) in Rio de Janeiro, where the city engaged in local workshops, trained municipal staff, and developed targeted resilience strategies for vulnerable communities.²¹¹ Building on this momentum, the city of Surat, India, utilized the UCRA to evaluate local climate risks, gather key insights from selected neighborhoods, and outline actionable measures to strengthen community resilience.²¹²

The New Urban Agenda provides a global framework for sustainable urban development aimed at addressing the social, economic, and environmental challenges of growing cities.²¹³ It emphasizes the need for inclusive urban planning and governance that promotes cleaner air, improved public health, and reduced environmental degradation.²¹⁴ The World Cities Report (2024), published by UN-Habitat, found that local and regional governments were making notable strides in adopting sustainable practices, yet many continue to face significant challenges when it comes to putting climate solutions into action.²¹⁵ In many areas around the globe, monitoring air quality is limited or unreliable because equipment is outdated and there aren't enough resources to track pollution properly. 216 In a study done by the World Bank, published in their 2019 report Lifelines: The Resilient Infrastructure Opportunity, the critical importance of investing in climate-resilient infrastructure is emphasized.²¹⁷ The study highlights that every US \$1 invested in resilient infrastructure can deliver up to US \$4 in benefits, including reduced repair costs, stronger economic productivity, and an improved quality of life.²¹⁸ Allocating just over US \$12 billion in 2023 to aid in developing transportation and energy infrastructure and billions more in water and urban infrastructure projects in the same fiscal year.²¹⁹ As of 2024, the World Bank is focusing on a new goal to align its operations with climate risk management at its core, due to insights from the 2019 Lifelines: The Resilient Infrastructure Opportunity report. 220

Data Sharing and Monitoring of Air Quality Across Borders

In an increasingly interconnected world, sharing data and monitoring across borders is not just a technological advancement, it's a vital step toward safeguarding human health and ensuring a more sustainable future.²²¹ As UNEP's *Global Environment Outlook 6 (GEO-6): Healthy Planet, Healthy People* (2019) emphasizes, innovation and collaboration hold the power to decouple economic growth from environmental harm, offering the global community the chance to prosper while protecting the planet.²²² GEO-6 highlights that technological innovation particularly in areas such as energy efficiency and renewable energy, plays a crucial role in achieving economic growth without causing environmental harm as it offers practical solutions.²²³ UNEP took a major step toward fostering global collaboration on air

²¹⁰ Ibid.

²¹¹ The Cities Alliance. *JWP for Resilient Cities Projects*. 2025.

²¹² Ibid.

²¹³ United Nations, General Assembly. New Urban Agenda (A/RES/71/256). 2017.

²¹⁴ Ibid

²¹⁵ United Nations Human Settlements Programme. *Cities and Climate Action World Cities Report*. 2024. pp. 172-175.

²¹⁶ Ibid. pp. 184, 193, 259-260.

²¹⁷ World Bank Group. LIFELINES The Resilient Infrastructure Opportunity. 2019. p. 22.

²¹⁸ Ibid. p. 15.

²¹⁹ World Bank Group. *Harnessing technical expertise for infrastructure resilience*. 2024.

²²⁰ Ihid

²²¹ United Nations Environment Programme. Global Environmental Outlook (GEO-6). 2019. p. 73.

²²³ Ibid. p. 40.



quality by launching the Global Air Quality Cooperation Network, established under UNEA resolution 6/10 (2024).²²⁴ While progress has been made in addressing air pollution through long-standing treaties. collaborative initiatives like the CCAC, and data sharing networks, stronger international cooperation is crucial for lasting solutions.²²⁵ This network helps bridge that gap by uniting governments, organizations, and stakeholders to improve air quality management.²²⁶ The Air Quality Management Exchange Platform (AQMx) was created to address gaps in air quality management resources and access to expert knowledge, especially in underserved regions.²²⁷ AQMx will support knowledge sharing and technical collaboration, helping countries strengthen their air quality monitoring with tools like low-cost sensors and satellite data, the network also works to improve access to funding and resources. 228

The Global Environment Monitoring System for Air (GEMS/Air) launched in 2020, established by UNEP, leverages science and technology to help developing countries create effective solutions for improving air quality and ensuring cleaner air for their citizens. 229 As part of this effort, GEMS/Air collaborates with partners to develop innovative tools, such as real-time interactive maps, that provide critical insights into air pollution levels and exposure on a global scale.²³⁰ To enhance collaboration, GEMS/Air prioritizes building partnerships with governments, private sector entities, and research institutions to strengthen air quality initiatives.²³¹ A key aspect of this effort is the development of an open Data Management System (oDMS), hosted by UNEP, which facilitates data sharing, improves access to historical air quality records, and enhances monitoring capabilities.²³² In the same year that GEMS/Air was launched, the Real-time Air Quality Index was introduced at the Tenth World Urban Forum in 2020 by UNEP, UN-Habitat, and IQAir, a company specializing in air quality technology, to provide global real-time air pollution data.²³³ This platform aggregates air quality information from over 4,000 contributors, incorporating governments and individuals, helping policymakers, citizens, and businesses take informed action to reduce pollution.²³⁴ Including those regions with limited monitoring infrastructure, giving local governments direct assistance in developing strategies for cleaner air.²³⁵ With a reach of over 15 million users, the platform is instrumental in broadening access to air quality data and aiding efforts to improve environmental conditions globally.236

Despite the ongoing efforts of non-governmental organizations, the international community, and national governments to address air pollution, major gaps in air quality monitoring remain.²³⁷ According to Open

²²⁴ United Nations Environment Programme. GEMS/Air Strategy. 2022; United Nations Environment Assembly. Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10). 2024. p. 2.

²²⁵ United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air* quality globally (UNEP/EA.6/RES.10). 2024. ²²⁶ United Nations Environment Programme. *Global Air Quality Cooperation Network*. 2025.

²²⁷ Ibid.

²²⁸ Ibid.

²²⁹ United Nations Environment Programme. *Monitoring air quality*. 2025.

²³⁰ United Nations Environment Programme. *GEMS/Air Strategy*. 2022. pp. 12, 68-69.

²³¹ Ibid. p. 8.

²³² Ibid.

²³³ United Nations Environment Programme. World's largest platform for air quality data launched at Tenth World Urban Forum, 2020.

²³⁴ Ibid.

²³⁵ Ibid.

²³⁶ Ibid.

²³⁷ OpenAQ. Open Air Quality Data: The Global Landscape. 2024. p. 3.



Air Quality Data: The Global Landscape (2024), 36% of Member States are still not conducting government-led air pollution monitoring, leaving nearly one billion people, mostly in low and middle income countries without critical data about the air they breathe. 238 Among the Member States that do collect air quality data, only 55% make this information publicly available, and just 27% share it in a fully transparent and accessible way.²³⁹ In many cases, governments release simplified air quality indexes to inform the public of pollution levels, but lack the detailed data needed by researchers and health professionals to develop effective long-term solutions.²⁴⁰ Several Member States have made significant strides in air quality data transparency, India offers environmental updates through mobile apps, while Member States such as Senegal, Ghana, and the Philippines use social media as a tool for daily air quality reporting.²⁴¹ These highlight how open data policies can encourage collaboration between scientists, the international community, and other stakeholders, leading to faster, more effective solutions that protect health and improve lives.²⁴²

Conclusion

According to UNEA, immediate action is necessary to protect our planet and ensure a healthy future for all.²⁴³ As the world faces the triple planetary crisis, regional cooperation on air quality has never been more urgent, clean air is not bound by borders, and neither are the solutions that can protect the health and dignity of millions.²⁴⁴ UNEA has emphasized that air pollution is deterring progress across various SDGs, negatively affecting both global populations and the environment.²⁴⁵ Many Member States, particularly in developing regions, lack reliable air quality monitoring systems, making it difficult to fully understand and address the health risks associated with air pollution.²⁴⁶ In response, UNEA continues to encourage global collaboration by emphasizing the importance of exchanging technology, expertise, and data, building upon national and regional frameworks that improve air quality for all.²⁴⁷ Shown in efforts made at UNEA-6, including the adoption of UNEA resolution 6/10.248 Urbanization has been identified as a powerful global trend that plays a critical role in air quality and climate change, with the potential to shape the future of communities and cities worldwide.²⁴⁹ While urban growth brings complex, far-reaching impacts that cross borders, it also offers a unique opportunity to improve quality of life while reducing environmental harm if managed sustainably.²⁵⁰

Further Research

As delegates conduct further research, they should consider the following: What strategies could enhance cross-border collaboration on air quality monitoring and ensure more consistent, transparent data

²³⁸ Ibid. p. 21.

²³⁹ Ibid. pp. 3, 15.

²⁴⁰ Ibid. p. 3.

²⁴¹ Ibid. pp. 15-16.

²⁴² Ibid. p. 3.

²⁴³ United Nations Environment Programme. Six key moments from UNEA-6. 2024.

²⁴⁴ United Nations Environment Programme. *A planet that sustains everyone, everywhere*. 2023.

²⁴⁵ United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable* Development (A/RES/70/1), 2015.

²⁴⁶ United Nations Environment Programme. Global Environmental Outlook (GEO-6). 2019. p. 40.

²⁴⁷ United Nations Environment Assembly. Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10). 2024. p. 2. ²⁴⁸ Ibid.

²⁴⁹ United Nations Human Settlements Programme. Cities and Climate Action World Cities Report. 2024. p. 215. ²⁵⁰ United Nations Environment Programme. *Global Environmental Outlook (GEO-6)*. 2019. p. 108.



exchange? How might differing political agendas, power imbalances, and economic priorities between Member States affect efforts to share air quality data openly and honestly? What strategies could be employed to build trust and overcome these barriers? In an increasingly data-driven world, who should own and control air quality data? Should access to environmental data be considered a public good? What steps can be taken to make sure air quality data is accessible and understandable to the public?



Bibliography

BioMed Central. *The costs, health and economic impact of air pollution control strategies: a systematic review.* 2024. Retrieved 5 February 2025 from:

https://ghrp.biomedcentral.com/articles/10.1186/s41256-024-00373-v

Intergovernmental Panel on Climate Change. *History of the IPCC*. 2025. Retrieved 13 March 2025 from: https://www.ipcc.ch/about/history/

Intergovernmental Panel on Climate Change. *SIXTY-SECOND SESSION OF THE IPCC*. 2025. Retrieved 13 March 2025 from: https://www.ipcc.ch/site/assets/uploads/2025/03/IPCC-62-Decisions.pdf

OpenAQ. *Open Air Quality Data: The Global Landscape*. 2024. Retrieved 13 March 2025 from: https://documents.openag.org/reports/Open+Air+Quality+Data-The+Global+Landscape+2024.pdf

The Cities Alliance. *JWP for Resilient Cities Projects*. 2025. Retrieved 20 April 2025 from: https://www.citiesalliance.org/jwp-resilient-cities-projects

The Climate and Clean Air Coalition. Synergizing action on the environment and climate: good practice in China and around the globe. 2019. Retrieved 7 February 2025 from:

https://www.ccacoalition.org/resources/synergizing-action-environment-and-climate-good-practice-china-and-around-globe

The Climate and Clean Air Coalition. *Clean Air Flagship 2024-2026*. 2023. Retrieved 7 February 2025 from: https://unece.org/sites/default/files/2023-12/CCAC-DEC2023-02 Clean-Air-Flagship EN.pdf

United Nations Department of Economic and Social Affairs. *The Sustainable Development Goals Report.* 2024. Retrieved 30 April 2025 from:

https://unstats.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf

United Nations, Department of Political and Peacebuilding Affairs. *Partnerships and Cooperation*. 2018. Retrieved 13 March 2025 from: https://dppa.un.org/en/partnerships-and-cooperation

United Nations Economic Commission for Europe. 1979 Convention on Long-Range Transboundary Air Pollution. 1979. Retrieved 5 February 2025 from:

https://unece.org/sites/default/files/2021-05/1979%20CLRTAP.e.pdf

United Nations Economic Commission for Europe. *Long-term strategy for the Convention on Long-range Transboundary Air Pollution for 2020–2030 and beyond (Decision 2018/5)*. 2018. Retrieved 13 March 2025 from:

https://unece.org/fileadmin/DAM/env/documents/2018/Air/EB/correct_numbering_Decision_2018_5.pdf United Nations Economic Commission for Europe. 2024–2025 Workplan for the Implementation of the Convention on Long-range Transboundary Air Pollution. 2023. Retrieved 13 March 2025 from: https://docs.un.org/ECE/EB.AIR/154/Add.1



United Nations Economic Commission for Europe. *UN Environment Assembly highlights rising global role of UNECE Multilateral Environmental Agreements to address triple planetary crisis*. 2024. Retrieved 30 April 2025 from:

https://unece.org/climate-change/press/un-environment-assembly-highlights-rising-global-role-unece-multilateral

United Nations Economic Commission for Europe. *Mission*. 2025. Retrieved 13 March 2025 from: https://unece.org/mission

United Nations Environment Assembly. Strengthening the role of the United Nations Environment Programme in promoting air quality (UNEP/EA.1/RES.7). 2014. Retrieved 13 March 2025 from: https://docs.un.org/UNEP/EA.2/6

United Nations Environment Assembly. *Preventing and reducing air pollution to improve air quality globally (UNEP/EA.3/RES.8)*. 2017. Retrieved 5 February 2025 from: https://docs.un.org/UNEP/EA.3/Res.8

United Nations Environment Assembly. *Promoting regional cooperation on air pollution to improve air quality globally (UNEP/EA.6/RES.10)*. 2024. Retrieved 5 February 2025 from: https://docs.un.org/UNEP/EA.6/Res.10

United Nations Environment Assembly. *Outcomes of UNEA-6*. 2025. Retrieved 13 March 2025 from: <a href="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unep.org/environmentassembly/unea6?%2Funea-6="https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."https://www.unea6."ht

United Nations Environment Programme. *Global Environmental Outlook (GEO-6)*. 2019. Retrieved 13 March 2025 from: https://www.unep.org/resources/global-environment-outlook-6

United Nations Environment Programme. *World's largest platform for air quality data launched at Tenth World Urban Forum.* 2020. Retrieved 7 February 2025 from:

https://www.unep.org/news-and-stories/press-release/worlds-largest-platform-air-quality-data-launched-tenth-world-urban

United Nations Environment Programme. *Actions on Air Quality: A Global Summary of Policies and Programmes to Reduce Air Pollution*. 2021. Retrieved 7 February 2025 from:

https://www.unep.org/resources/report/actions-air-quality-global-summary-policies-and-programmes-reduce-air-pollution

United Nations Environment Programme. *Air Pollution Series Actions on Air Quality*. 2022. Retrieved 13 March 2025 from: https://wedocs.unep.org/bitstream/handle/20.500.11822/36695/AAQ ESG EN.pdf

United Nations Environment Programme. *GEMS/Air Strategy*. 2022. Retrieved 13 March 2025 from: https://wedocs.unep.org/bitstream/handle/20.500.11822/39592/GEMSAir_Str.pdf?sequence=1&isAllowed=V



United Nations Environment Programme. *A planet that sustains everyone, everywhere*. 2023. Retrieved 13 March 2025 from:

https://www.unep.org/news-and-stories/speech/planet-sustains-everyone-everywhere

United Nations Environment Programme. *Pollution Action Note - Data you need to know*. 2023. Retrieved 5 February 2025 from: https://www.unep.org/interactives/air-pollution-note/

United Nations Environment Programme. *Six key moments from UNEA-6*. 2024. Retrieved 13 March 2025 from: https://www.unep.org/news-and-stories/story/six-key-moments-unea-6

United Nations Environment Programme. *Cities and climate change*. 2025. Retrieved 13 March 2025 from: https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities-and-climate-change

United Nations Environment Programme. *Climate and Clean Air Coalition (CCAC)*. 2025. Retrieved 13 March 2025 from: https://www.unep.org/topics/energy/methane/climate-and-clean-air-coalition-ccac

United Nations Environment Programme. *Global Air Quality Cooperation Network*. 2025. Retrieved 13 March 2025 from: https://www.unep.org/topics/air/global-air-quality-cooperation-network

United Nations Environment Programme. *Here's how buildings contribute to climate change – and what can be done about it.* 2025. Retrieved 24 May 2025 from:

https://www.unep.org/news-and-stories/story/heres-how-buildings-contribute-climate-change-and-what-can-be-done-about-it

United Nations Environment Programme. *Monitoring air quality*. 2025. Retrieved 7 February 2025 from: <a href="https://www.unep.org/topics/air/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-quality/monitoring-air-qu

United Nations Environment Programme. *Why does air matter?*. 2025. Retrieved 5 February 2025 from: https://www.unep.org/topics/air/why-does-air-matter

United Nations Environment Programme. *Why does environment, health and pollution matter?.* 2025. Retrieved 13 March 2025 from:

https://www.unep.org/topics/chemicals-and-pollution-action/pollution-and-health/why-does-environment-health-and

United Nations, General Assembly. *Universal Declaration of Human Rights (A/RES/217 A (III))*. 1948. Retrieved 30 April 2025 from: http://www.un.org/en/documents/udhr/

United Nations, General Assembly. *Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1).* 2015. Retrieved 7 February 2025 from: https://docs.un.org/A/RES/70/1

United Nations, General Assembly. *New Urban Agenda (A/RES/71/256)*. 2017. Retrieved 13 March 2025 from: https://docs.un.org/en/A/RES/71/256

United Nations, General Assembly. *The human right to a clean, healthy and sustainable environment (A/RES/76/300)*. 2022. Retrieved 5 February 2025 from: https://docs.un.org/A/RES/76/300



United Nations Human Settlements Programme. *Cities and Climate Action World Cities Report*. 2024. Retrieved 13 March 2025 from: https://unhabitat.org/sites/default/files/2024/11/wcr2024 - full-report.pdf

United Nations Office for Disaster Risk Reduction. *Pollution*. 2020. Retrieved 5 February 2025 from: https://www.undrr.org/understanding-disaster-risk/terminology/hips/tl0028

United Nations, World Health Organization. *WHO global air quality guidelines*. 2021. Retrieved 24 May 2025 from: https://iris.who.int/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1 United Nations, World Health Organization. *Air pollution*. 2025. Retrieved 5 February 2025 from: https://www.who.int/health-topics/air-pollution#tab=tab 1

World Bank Group. *LIFELINES The Resilient Infrastructure Opportunity*. 2019. Retrieved 30 April 2025 from:

https://openknowledge.worldbank.org/entities/publication/c3a753a6-2310-501b-a37e-5dcab3e96a0b

World Bank Group. *Harnessing technical expertise for infrastructure resilience*. 2024. Retrieved 30 April 2025 from:

https://blogs.worldbank.org/en/ppps/harnessing-technical-expertise-for-infrastructure-resilience

World Bank Group. *World Bank Group and The 2030 Agenda*. 2025. Retrieved 24 May 2025 from: https://www.worldbank.org/en/programs/sdgs-2030-agenda.