

UNEA-7 North American Regional Consultation

Summary Report

Overview

The United Nations Environment Programme (UNEP), in the lead-up to the seventh United Nations Environment Assembly (UNEA-7), sought to capture North American regional input around sustainable and effective action on the triple crises of climate change, biodiversity loss, and pollution. Stakeholders from across Canada and the United States (U.S.) were invited to share examples and best practices covering six topical areas to reflect on both successes and challenges to date, and to formulate key actions and agendas that member states should consider to catalyze lasting progress.

The virtual consultation, facilitated by MIT Solve, took place on 1 October 2025, from 1:00-3:30pm EDT. Of the participants, 30 were from organizations accredited with UNEP; 14 were men, with 31 women; and several major groups were represented: Business and Industry (6), Children and Youth (3), Farmers (3), Indigenous Peoples (2), NGOs (32), Local Authorities (1), Scientific and Technological community (5). A full listing is provided in Appendix A. The meeting began with an overview of UNEA and then participants were invited to join three distinct breakout sessions, covering the six topical areas. Discussions were held under Chatham House Rules and report-outs were held after each breakout.

The six topics of discussion were chosen in response to the UNEA-7 theme: “*Advancing sustainable solutions for a resilient planet*” and the areas identified in the [Report of the Executive Director](#), encouraging the Assembly to inspire more effective and sustainable multilateral action. Based on this, and considering North American regional priorities, the consultation was focused on the following topics:

Cluster A:

- Water
- Wildfire
- Indigenous Peoples

Cluster B:

- Circular Economy
- Artificial Intelligence (AI)
- Anti-microbial Resistance (AMR)

A full description of the consultation agenda and discussed questions are provided in Appendix B. This report provides 3 key messages that resonated across topical areas along with specific input from each area as they related to the North American context.

Key Messages Across Topics

Three key, cross-cutting messages emerged from the consultations around most of the six topic areas. These messages were compiled by the Regional Co-Facilitators (Kelly Sheridan and Medani Bhandari) with input from the UNEP North America Office.

1. While technological innovation carries great promise, its trade-offs must be carefully considered to avoid burden-shifting or unintended consequences

Participants recognized that technological innovation is a necessity to advance environmental priorities. Simultaneously, they emphasized that technological innovations must be carefully designed to support communities and their environments. Caution must be taken to avoid amplifying existing environmental injustices, shifting burdens, or creating unintended consequences. These points were particularly stressed in relation to the transition towards a circular economy and the rapid development and integration of artificial intelligence (AI), but also referenced in the discussion of technological advancements in water reuse and desalination tools.

Current efforts: Participants shared initiatives which exemplified an environmentally-conscious approach to technological innovation, including

- A. **AI-enhanced environmental monitoring platforms** which help to provide actionable pathways for actors to use technological innovations to advance the environmental agenda (such as [Global Nature Watch](#), or [OpenAQ](#), which can be used to [provide real-time air pollution data](#) to community members through AI-based technology).
- B. **Coalitions**, including the [Coalition for Digital Environmental Sustainability, Sustainability in the Digital Age](#) and the [Pet Sustainability Coalition Packaging Pledge](#), which help to inform and provide momentum for actors to drive transformative, technological systems changes for sustainability.
- C. **Sector-specific guidelines and frameworks** which integrate the zero-waste hierarchy into the design and implementation of innovative technologies, such as [Volvo 9-R Framework](#) or the [Phillips Circular Edition Portfolio](#), or develop principles and responsibilities for using AI in environmental research and decision-making, such as the [AGU AI/ML Ethics Report](#).

Necessary actions and recommendations: Breakout groups emphasized that UNEP has a strong role to play in ensuring that environmental dimensions are taken into account in technological innovation. This could include efforts to support:

- A. **Market-readiness:** UNEP's global convening power could help to establish the infrastructure and partnerships necessary to bring sustainable technological innovation outcomes to the market, including through the replication and scaling-up of proof-of-concept practices and by updating and synthesizing global best practices.
 - i. This would build awareness around the business case for sustainable innovation, such as e-commerce opportunities or the growth of alternative materials in the circular economy transition.
 - ii. With regards to a circular economy, market readiness efforts would need to apply to upstream innovation efforts (including product design and supply chain redesign)

but also end-of-life innovations (such as creating market opportunities for recycled materials and reuse).

- B. **Data-driven approach:** UNEP's science-policy approach can help to guide the design and implementation of technological innovations to ensure that they uphold the principles of data sovereignty and integrity and the precautionary principle. This can also help to remove mistrust surrounding innovative technologies.
 - i. Knowledge and data-sharing can ensure that all stakeholders are then equally able to access the sustainability benefits of technological innovation.

2. Different perspectives and forms of knowledge must be integrated into environmental processes to ensure meaningful participation of all regional stakeholders.

On all topics of discussion, there were frequent mentions of the importance of democratizing decision-making processes to include diverse perspectives and forms of knowledge. Participants highlighted that an equitable multistakeholder approach, including historically underrepresented perspectives like those of Indigenous Peoples, youth leaders, farmers and local practitioners, facilitates meaningful collaboration. This would require capacity-building and other empowerment efforts to ensure that all participants are fully informed and able to provide effective input and consent into all solutions processes.

Current efforts:

- A. [The Athabasca Chipewyan First Nation Water Policy 2023](#) and the [former U.S. EPA Smoke Sense app](#) for wildfire management were used to exemplify how Indigenous-led and citizen science initiatives can enable the collection of data that leads to targeted policy development. Participants specifically emphasized the importance of context-specific solutions in relation to wildfires and water management.
- B. Other locally-led and consultative approaches were also highly regarded, from the state-led [Maine PFAS Response Program](#) which works directly with PFAS-impacted commercial farming communities, as well as an [“anti-disposability effort” which aim to restore relations to earthenware as an Indigenous art form and as a sustainable material.](#)

Necessary actions and recommendations: Participants highlighted the need for UNEP, as the coordinator of convening platforms and scientific networks, to support meaningful engagement of all stakeholders across North America, with particular attention paid to Indigenous Peoples and children and youth in the region. This includes through:

- A. **Further alignment, implementation and evaluation of existing governance frameworks and safeguards** from within the UN system into the environmental agenda, such as the [UN Declaration on the Rights of Indigenous Peoples](#) and related human rights frameworks, such as the [resolution approved by the UN General Assembly on the right of peoples to a clean, healthy and sustainable environment.](#)
- B. **Further authentic integration of Traditional Ecological Knowledge and diverse forms of knowledge and cultural perspectives** into UNEP's publications and processes (with examples ranging from wildfire management to the rights of nature) to appropriately protect and scale technical and governance leadership from underserved

communities.

- C. **Ensure the longevity of relations** with community-level actors by including their meaningful participation in consultative processes.
- D. **Greater consideration of cross-generational education and community-building** to support collaborative learning

3. **Holistic monitoring, governance and enforcement is essential to effectively address regional environmental priorities**

The majority of participants repeatedly emphasized the importance of monitoring, governance and enforcement of all of the topics discussed using a full-cycle and cooperative approach. This would be used to avoid generic or inflexible approaches in the development of governance and accountability frameworks, especially in increasingly complex and topical areas such as wildfire management, transboundary water, AI and circular economy. Recognizing the deep interconnections among the six thematic areas discussed in the UNEP's Executive Director Report, participants emphasized that sustainable progress would depend on shared enablers such as systems thinking that bridges science, policy, and practice, multi-level coordination and community input across the issue areas.

Current efforts:

- A. **Systems-thinking research outcomes and agendas**, such as the [Agenda for Water Action from the High-Level Panel on Water \(2018\)](#) and research on [proposed Earth System boundaries for climate, biosphere, water and nutrient cycles](#), were suggested as exemplifying holistic and effective approaches to complex governance issues

Necessary actions and recommendations: Participants suggested that UNEP had a role to play in:

- A. Continuing to create space for full-cycle discussions on the management of plastics pollution and the transition to a circular economy; forest and wildfire management; the increasing threat of antimicrobial resistance; and the management of the entire hydrological cycle; as well as the [drivers and impacts of water conflicts](#). This would help to ensure that the full range of risks and opportunities would be addressed in any governance framework on any of the topics.
- B. Emphasizing synergies with multilateral environmental agreements (e.g. on [the transboundary movement of hazardous waste](#) when considering the growth of alternative materials industries) and other efforts to ensure corporate accountability for the cumulative impacts of their practices, including the design and implementation of technological innovations.

Appendix B: Structure and Format¹

This 2.5-hour Regional Consultation was held via Zoom. The event consisted of breakout discussion sessions focused around six topical areas under the broad crises of climate, nature and biodiversity, and pollution, grouped into two “clusters” for the breakouts:

Cluster A:

- Water
- Wildfire
- Indigenous Peoples

Cluster B:

- Circular Economy
- Artificial Intelligence (AI)
- Anti-microbial Resistance (AMR)

The session opened with 20 minutes of framing remarks. Rafael Peralta (Regional Director for North America, UNEP North America) provided an overview of UNEA-7 and the role of the regional consultative meeting in informing the Assembly. Kelly Sheridan (North America Regional Co-Facilitator) provided context from an attendee perspective.

Participants were then split into smaller groups for breakout sessions, each with a trained facilitator and notetaker from MIT Solve and the Regional Office of North America. At first, there were three breakout groups – Cluster A, Cluster B sub-group 1 on Circular Economy and Cluster B sub-group 2 on AI and AMR – to achieve split between participants’ three major areas of interests. Following the first session, the two sub-groups of Cluster B were merged due to low participation numbers in sub-group 1. For the second session, participants were split into either Cluster A and B. Participants were asked to consider the following questions:

Breakout 1: Current efforts and examples (50 minutes)

- How engaged is your organization with the UNEA process? What level of priority would your organization give to a relevant UNEA resolution?
- What are the best examples of systemic shifts or scalable solutions in this area, whether from your work or others?
 - What about their design was most beneficial?
 - What is their likely path to greater impact?

Breakout 2: Necessary actions and agendas (45 minutes)

- What are specific steps that member states can/should take under current regional/global initiatives?
- What are particular learnings from a North American context that could be applicable for environmental agendas elsewhere?
- What subtopics or questions need to be discussed by member states to move forward on this topic?

¹ Annex A: Full List of Participants was removed from this document to keep the names of participants confidential.

- What topics are important (potentially for several of the six areas) but indirect to any of them, and may not be on current agendas?

Appendix C: Specific Examples

All initiatives listed below were mentioned as specific existing solutions, frameworks, or initiatives, or best practices during the regional consultation. They are categorized based on relevance to the three overarching crises and cross-cutting topics.

Example Name and Brief Notes	Water	Wildfire	Indigenous	Circular Economy	AI	AMR
Algorithmic discrimination and explainable artificial intelligence in the judiciary : An article provided as an example of the trust and use barriers of AI through a case study of the Constitutional Court of Colombia.					X	
American Geophysical Union – NASA Ethics in AI/ML : an effort to engage the AI/ML community to develop a set of principles and responsibilities for using AI/ML in Earth and environmental science-focused research.					X	
Article which details the impacts of an oil sector buildout, including desalination and plastics production plants, on the city of Corpus Christi, Texas, U.S.	X			X		
Athabasca Chipewyan First Nation (ACFN) Water Policy 2023 (and integrated criteria for protection of Indigenous use): An instrument to establish water quality and quantity standards and processes that any use of or impact to water in ACFN territory must follow.	X		X			
Biodegradable Elastomers – Where is the solution? : An article which aims to envision a pathway toward biodegradable rubber materials and a more comprehensive vision for sustainability relating to broader society.				X		
California Senate Bill 1383 , “Short-Lived Climate Pollutant Reduction Strategy Act”: This legislation requires all jurisdictions to divert at least 75% of organic waste from landfills by 2025, mandates edible food recovery and requires cities and counties to procure products from recycled organic materials				X		
California Senate Bill 54 , “Plastic Pollution Prevention and Packaging Producer Responsibility Act”: This legislation introduced a statewide extended producer responsibility program in California.				X		
Citizen Science and its applicability for sustainability and a healthy planet : An article which provides a theoretical framework for understanding citizen science and its interrelationship with Indigenous knowledge and tradition.			X			
Earth Law Center : A team of legal professionals who have convened to advance the Rights of Nature and other Earth-centered legal movements worldwide.			X			X
“Earthware” : An anti-disposability effort by the Society of Native Nations which aims to restore relations to Indigenous earthenware practices as an art form and encourage sustainable behavioral change.			X	X		

Global Nature Watch – an open, AI-powered system that aims to transform land monitoring data into intelligence to understand Earth’s landscapes.					X	
Global Nitrous Oxide Assessment : A UNEP report which examines nitrous oxide, which plays a crucial role in our global food system but demands urgent attention for sustainable solutions.						
High-Level Panel on Water Outcome Document – Making Every Drop Count, An Agenda for Water Action : The outcome document of the United Nations and World Bank Group convened panel to accelerate progress towards the adequate management of our planet’s water resources.	X					
International Institute for Sustainable Development : A think-tank which conducts research and policy work, including on sustainability initiatives, and provides open and easily accessible readouts of various environmental negotiations						
Let’s get the Most Out of Plastic Waste : An article exploring the sustainability solutions potential around chemical recycling.				X		
Maine Department of Agriculture, Conservation & Forestry (DCAF) PFAS Assistance for Maine Farmers : DCAF’s effort to support farmers facing PFAS contamination, including a response program and fund, to ultimately allow them to remain in business and produce safe food.				X		
OpenAQ Data Platform : uses AI to ingest, aggregate, harmonize and share air quality data that its universally accessible and easy to use.					X	
Phillips Circular Edition portfolio: offers high-quality refurbished medical imaging systems with a reduced carbon footprint and environmental impact.				X		
PSC Packaging Pledge : The Pet Sustainability Coalition Packaging Pledge supports pet companies to transition to recyclable, reusable or compostable packaging by 2025, including through a vetted marketplace of qualified packaging suppliers, marketing assets and other business case data.				X		
Quadripartite collaboration on One Health : An agreement between the Food and Agriculture Organization, the World Health Organization, the World Organization for Animal Health and UNEP signed in March 2022 to strengthen cooperation to sustainably balance and optimize the health of humans, animals, plants and the environment.						X
Research on greenhouse gas emissions impacts in North Pacific climate variations : an article which suggests that the ongoing multidecadal drought in the western United States can largely be attributed to human activity.						
Research on Safe and just Earth system boundaries : an article which proposes a quantitative foundation for safeguarding the global commons through the identification and quantification of safe and just Earth system boundaries.						
Research on the issues, challenges, and prospects of the Niger Delta Crisis : an article which details, in a systematic manner, the real issues involve in the struggle from the	X					

perspectives of the Nigerian State, the Niger Delta communities, and the oil companies.						
Smoke Sense : A crowdsourcing, citizen science research project developed by U.S. Environmental Protection Agency researchers focused on increasing public awareness and engagement related to wildfire smoke health risks through a mobile phone app. <i>Note that the Smoke Sense app has been unavailable for use since 8 December 2024.</i>		X				
Sustainability in the Digital Age : An initiative to explore the opportunities and challenges of leveraging digital capabilities to drive transformative systems changes for a sustainable and equitable world.					X	
Taking Industrial Action to prevent emissions of nitrous oxide to protect the climate and ozone layer : A briefing paper by the Environmental Investigation Agency which assesses the nitrous oxide and mitigation opportunities.						
The Coalition for Digital Environmental Sustainability : a global hub for policymakers, academics, technology companies and NGOs to lead and contribute to digital sustainability initiatives.					X	
UN Declaration on the Rights of Indigenous Peoples : A legally non-binding UN resolution passed by the General Assembly in September 2007 which delineates and defines the individual and collective rights of Indigenous peoples.						
UN Resolution on the human right to a clean, healthy and sustainable environment : A legally non-binding resolution passed by the General Assembly in July 2022 which recognizes the right to a clean, healthy and sustainable environment for all.						
United Nations Statistical Commission : The highest body of the global statistical system, which brings Chief Statisticians from member states around the world for international statistical activities, the setting of statistical standards and the development of concepts and methods, including their implementation at the national and international level.						
Upstream Grand Canyon South Rim Single-use Waste Initiative : In partnership with Grand Canyon concessioners, Upstream aim to establish the first reuse system for foodservice in a national park.				X		
Volvo “9R-Framework” : a framework used by the Volvo group to emphasize proactive design for circularity with focus on materials and minerals based on the levels of circular activities from Recovery and Recycle over Remanufacture and Reuse towards Reduce and Reuse.				X		
WHO Framework Convention on Tobacco Control : This evidence-based treaty aims to provide a global response to the tobacco epidemic by minimizing both the supply and demand of tobacco, including through the regulation of packaging and labelling of tobacco products and the support of economically viable alternatives to tobacco growing.				X		X