

Our Ref: UNEA/GEO7/go/1

December 7, 2022

Outcomes Document

Scoping Meeting for the Seventh Edition of UNEP's Global Environment Outlook (GEO-7)

October 17-20, 2022

The experts nominated to the scoping meeting of the seventh Global Environment Outlook (GEO-7) met to review and adopt the scoping document.

Agenda items included:

1. Opening of the meeting
2. Introduction of meeting officials and chairs of the assessment
3. Modalities for the meeting and adoption of the agenda
4. Expert dialogues: Energy systems, Food systems and Circularity
5. Review and comments on the GEO-7 scoping document
6. Adoption of the revised GEO-7 scoping document
7. Any other business (AOB)
8. Closing of the meeting

On these agenda items the meeting decided:

- The Drivers, Pressures, State, Impact, Response (DPSIR) analytical framework for the GEO-7 assessment should be adapted for use in this innovative GEO-7. The updated graphic of the framework now includes drivers such as demographics; economic and finance; urbanization; scientific and technological innovation; distribution pattern processes; cultural, social (including inequity, gender, values, lifestyles, among others); political and institutional processes. It also considers pressures, both from human interventions on the environment (including shocks such as diseases and pandemics, human-made disasters and conflicts); and natural processes (e.g., earthquakes, volcanoes and extreme natural events).
- The GEO-7 will develop solutions pathways for transforming a) economic and financial models, b) energy systems, c) food systems, d) linear economic models toward circularity-, and d) environmental systems.
- The assessment will include an outlooks section which will a) assess different scenarios, including the business-as-usual scenarios and target-seeking scenarios and their socio-economic implications, b) present solutions pathways for countries with different economic, resource and environmental situations, and c) assess the likely regional and sub-regional implications of the different solutions pathways.
- GEO-7 will include regional and sub-regional specificities. How to implement these will be discussed with the GEO-7 [Intergovernmental and Multi-stakeholder Advisory Group \(IMAG\)](#) and the authors. It was proposed to add two regionally focused chapters in the *State and Trends of the Environment* section and *Outlooks* chapters.

- There will be four chapters on the current state of key natural systems (Air, Land and Soils, Oceans and Coasts and Freshwater) while biodiversity loss and biodiversity impacts will be treated as cross-cutting issues.
- Methodology chapters for the solutions pathways and the outlooks would be needed to ensure the scientific credibility of these approaches. These methodologies could be placed in the annexes of the GEO-7 report.
- The Secretariat will provide different budget scenarios to be considered by experts and to allow flexibility if the full budget is not obtained.
- The Secretariat will prepare an updated version of the workplan and timeline to reflect an extension of at least 6 months for the development of the GEO-7 assessment.

Rapporteur	Signature
Ms. Anna Mampye	

Meeting Summary

Day 1

Opening of the scoping meeting and adoption of agenda

The Secretariat started the meeting with an introduction of the co-chairs and vice chairs of the meeting and of the assessment. The meeting co-chairs are Ms. Anna Mampye (South Africa) and Mr. Lorenzo Ciccarese (Italy) and the vice-chairs are Mr. Miroslav Havránek (Czechia) and Mr. Alberto Santos Capra (Argentina). The Secretariat also introduced the co-chairs and vice-chairs of the assessment: Sir Robert Tony Watson (UK/US) and Prof. Nyovani Janet Madise (Malawi) are the co-chairs and the vice-chairs of the assessment are Prof. Edgar E. Gutierrez-Espeleta (Costa Rica) and Prof. Wang Yi (China).

The Co-chairs opened the meeting with the first agenda item, *adoption of the agenda*, which was accepted on a no objection basis. The Co-chair then invited the Executive Director of UNEP, Inger Andersen, to provide opening remarks. She highlighted the importance of the Global Environment Outlook as UNEP's flagship environmental assessment, mentioning the expectation that the next edition of the GEO will lead the world towards a deeper understanding of the triple planetary crisis and the implementation of solutions to tackle them. She also mentioned the importance of closing the gap between science and policy in action and encouraged the collaboration of experts from different backgrounds, including social and behavioral scientists. She added that GEO should be a report that sets science off in a new direction, which answers the questions posed over the decades and tells the world how to fix the triple planetary crisis for the benefit of all humanity.

Following the Executive Director's opening remarks, the Co-chair invited the Chief

Scientist of UNEP, Dr Andrea Hinwood, to provide a presentation on UNEP's science-policy interface. She stated that evolving the GEO assessment from an analysis of the state of the environment to developing policy solutions was one of the priorities to strengthen science-policy interface. She also mentioned that GEO would provide a crucial opportunity to make scientific information more accessible, inclusive, and equitable. In addition, the Chief Scientist introduced other tools to strengthen science policy interface, available at UNEP and in other locations. The presentation was concluded by encouraging more discussion on this topic during the upcoming week.

The Secretariat provided an overview of the proposed solutions focused approach for GEO-7 and the digitization of GEO, mentioning the five online collaboration platforms that are being developed for this purpose. A brief of the proposed timeline and what to expect over the next three years was also presented to the experts.

The Secretariat requested feedbacks from the experts and the main comments were:

- On the mapping and graphing platform, additional details were requested on the new and previous live data collection and dissemination efforts and their contribution to GEO-7.
- Additional clarity was requested on the roles of collaborating centers, technical support units and engagement of GEO-7 authors.
- It was mentioned that there is a need for criteria to distinguish between the peer reviewed and grey literature to ensure that credibility and defensibility of the assessment are maintained.

The Secretariat responded that:

- The mapping and graphing platform is for the authors to build their own graphics. Through this platform, original graphics could be produced linking them to live data sources.
- The scoping document is a key tool to link the level of expertise and the types of expertise for collaborating centers and authors. With a clear annotated outline, the different scopes of expertise can be identified.

Review of Introduction, Rationale, and Methodology sections of scoping document

The Secretariat provided an overview of the *Introduction* section of the document with a detailed focus on the process for developing the GEO-7, building on the findings of GEO-6. Following the presentation, the co-chair opened the floor for interventions from the experts which focused on:

- Include gender equality and social inclusion as a driver.
- One of the systems, *waste*, should be changed to *materials* to make it more comparable and distinctive to the other two systems.
- Need of clarity on policy designs and to highlight existing policy gaps.
- Importance of involving policy and decision makers in the process of preparing and producing the GEO-7.
- The equity principle of the solution pathways should be considered, given that different countries are at different levels of development.

- The document presents two missed opportunities: the scientific and political structure.
- Statements on the human health and wellbeing dimension should be added.
- Include indigenous knowledge and local knowledge in the DPSIR framework.
- Avoid the one-solution-fits-all recommendations and, instead, incorporate different levels of variation between countries.
- Engage at the regional level because results need to be implemented at regional and national levels.
- Need to look at the “how” in the scoping document, the focus should not only be on the policies for delivering the outlooks identified in GEO-7 but on their successful implementation.
- Further clarity is needed on the role of indigenous knowledge and knowledge keepers in designing and proposing solutions to environmental challenges.

The Secretariat responded that

- Gender and equity will be cross-cutting issues throughout the GEO report.
- Waste starts from the extraction of minerals through the production of a product to its disposal. It's not only municipal solid waste and hazardous waste.
- Scientific assessments must be policy relevant and not policy prescriptive. The 'who pays' question requires a policy prescriptive answer. Funding and financing need to be available to address the transformations.
- More detailed information could be discussed during the review of the following sections.

Expert dialogue on food systems

The expert dialogue on food systems focused on the changes in food systems and what can be done to make the food system more environmentally sustainable. The session started with an introductory presentation from the experts and continued with a round of questions to the experts based on policy questions extracted from the survey that the GEO Secretariat conducted with all meetings participants. The experts talked about nature-based solutions in agrifood systems, what is affecting their scaling and how the adoption of nature-based solutions can be accelerated.

The key points from the panel discussion were:

- Food waste is a big issue and food is produced for more than 10 billion people, but 40% of it goes to waste.
- There is a need to shift to rural transition and private and public finance have a crucial role in this transformation. Capacity needs to be built among farmers and fishers everywhere to scale the adoption of regenerative food producing systems.
- For the challenges on gender equality, there is a need to look at what data is required. There should be more easily available gender-disaggregated data for the type of policy decisions that need to be taken.
- On the issue of behavioral change, there is not only a need for dietary change, but also change on the producer side.

The discussion also mentioned alternatives to animal products and the comparison effects of the plant-based alternatives to animal-based foods. The need for reducing emissions produced by intensive livestock farming and food processing factories was also discussed. The last point of the dialogue was on technology and where it falls on solutions that need to be put forward to transform the food system.

Continuation: Review of Introduction, Rationale, and Methodology sections of scoping document

The Secretariat provided an overview of the *Rationale* section of the document, giving details on how we achieve transformations and not “what” needs to be done. There is a lot of solid knowledge about what needs to happen, but not on strategies on how to incentivize “how” to make those transformations. Under the *Methodological approach* section, the Secretariat mentioned several individual chapters on different topics and the interdependencies of the different systems that will be included in this section.

Following the review of these sections, the co-chair opened the floor for interventions. The main comments were:

- Gender is not strongly mentioned in the document in terms of the implications of environmental change for women and men and on relevant policies.
- Need to incorporate citizen science in the document, particularly in relation to data.
- Rephrase the environmental impacts mentioned to consider how changes to the environment have exacerbated the risk of emerging infectious diseases, considering that COVID-19 is a clear example that had massive negative consequences.
- GEO-7 needs to include an in-depth discussion on how we integrate the five environmental themes within the triple planetary crises.
- The rationale of GEO-7 should provide stronger coverage of implementation issues, including the question of collective action at different scales from the local to the global regions.
- Clarity was requested on whether GEO is proposing to do scenario development or utilize existing scenarios when it comes to modeling and scenario development.

The Secretariat responded that:

- Citizen science, Indigenous and traditional knowledge, local knowledge and gender data issues will be taken into consideration.
- Pandemics, disasters and conflicts are further explained in the annotated outline section.
- The decision on whether to assess existing scenarios or develop new ones will be taken based on the budget available.

Review of the draft annotated outline

The Secretariat presented an overview of the annotated outline which was followed by a discussion section-by-section. Comments collected from the peer review online platform (Review Editor Analytical Database, READ) were also mentioned when going through the document. Experts began by reviewing the first two sections of the annotated outline with a focus on the DPSIR framework:

- Request for further explanation and clarity on the DPSIR framework.
- Suggestion to include an additional indirect driver looking at the politics or political systems.
- Highlight the importance of root drivers that have to do with aspects like lifestyles and consumption patterns.
- Bringing together the drivers and pressures might be interesting but it provides limits to what can be achieved through GEO.
- The importance of looking at the interlinkages between pressures was mentioned.

Proposals for changes to the text were collected by the Secretariat to produce a new version of the document for next day's discussion. The scoping document was amended between sections 1 and 2 following the suggested changes and inclusions to the document by participants. The amended scoping document was shared with all participating experts prior to the commencement of day 2.

Day 2

Expert dialogue on energy systems

The day began with an expert dialogue on energy systems. The dialogue provided an overview of the energy system issues and the related possible solutions pathways to help mitigate the climate change crisis. The key points from this dialogue were:

- There are multiple ways to reach the net-zero targets and the IPCC's, International Renewable Energy Agency's (IRENA) and the International Energy Agency's (IEA) scenarios all converge around a similar point in terms of the importance of renewable energy and energy efficiency measures. This means that the energy sector must be one of the first sectors to be transformed to support decarbonization.
- The Global North needs to act first, not only by leading the emission reductions but also by bringing down the costs for the Global South.
- A significant increase in investment is needed, particularly in clean energy and in innovation.
- There is a big gap in policies for non-power sectors like the heating, cooling, transportation, where the majority of the energy consumption actually lies. When designing policies for renewable energy, stronger linkages with other sectors need to be identified and encouraged.
- The transition of the energy system must account for the impacts of the changing climate on the most vulnerable communities. Therefore, it is crucial that the transformation of the food systems takes into account equity factors.

Continuation: Review of later sections of the draft annotated outline

The Secretariat provided an overview of the changes to the document from the meeting on day 1. The main points were as below:

- Land degradation was integrated into the annotated outline in the context of the triple planetary crisis.
- Transformation efforts need to speak about human systems.

- Waste is used as a generic term. There is a need to transform the linear economic system into a circular one that would eliminate waste both at the resource extraction stage and at the final disposal stage.
- Current and future pandemics will be included in the *State and Trends of the Environment* section.
- Suggestions on expanding the DPSIR are considered.
- Further discussion is needed on how the *State and Trends of the Environment* section would be redesigned to avoid duplication in the narrative.

The main comments from the experts were:

- Guidance should be provided in the five chapters under the *State and Trends of the Environment* when the six regions will be mentioned.
- Revisit the term triple planetary crisis.
- Indigenous and local knowledge narrative should be included.
- Ensure that the scoping document is a guideline, authors should have creativity to draft the chapters.
- Clarity was requested on why the various topics were chosen.
- Provide clear terminology like *lock-ins*, etc.
- Reword the statement on the circularity transformation pathways, there is no guarantee that the circular economy pathway will result in mineral extraction linked to conflicts.

The session continued with the review of the section on *Policy Responses and Solutions Pathways*. Comments raised on this section included:

- Environmental governance should be included as an approach to improve the environmental system.
- Three aspects should be included in energy: availability, accessibility and affordability.
- Incorporate technologies, innovations and practices that facilitate transitions to a low carbon economy, environmentally sustainable agriculture, and circular economy.
- Wetlands need to be captured more under the *Environmental systems* subsection.
- A paragraph on multi-stakeholder partnerships to mobilize and share expertise on the SDGs should be added.
- Restructure the text on economic and financial systems and consider adding a financing section in each of the system transformation chapters.
- Include *environmental justice* as a concept in the paragraph of environmental systems.
- Include the aspect of food security and not only food production.
- Provide clarity on the circularity transformational pathways without linking circularity to only resource extraction and waste.
- A glossary to address different terms such as *greenwashing* should be added.
- Clarity was requested on the indicators that will define the methodological approach to solutions pathways.

The Secretariat then presented the *Outlooks* section. The experts suggested setting a time dimension for the outlook part of the report and considering having scenarios that bring together different transitions and environmental challenges in an integrated way. The Secretariat responded that clarification should be provided in the text on what target

scenarios are saying, and it was planned to have a dedicated modeling exercise to come up with a set of unique GEO-7 scenarios.

On the *Conclusions* section, the Secretariat indicated that it would be redundant with the Summary for Policymakers (SPM) which brings all these relevant policy issues together. The experts were in support of not having a conclusions paragraph but instead produce a good Summary for Policymakers that respects science and provides effective policy messages. Then the Secretariat proposed to have the Summary for Policymakers distilled down to a set of Key Messages summarized in two pages.

Review of workplan and budget

The Secretariat presented an overview of the timeline including going through the plans of the three-year preparation process of GEO-7 and reviewed the budget. The expert's main concern was on the length of the drafting period, which was considered not long enough for authors to deliver a high-quality document for peer review. It was agreed that the discussion on the work plan will continue the next day.

Day 3

Expert dialogue on circularity

The day began with an expert dialogue on circularity. The dialogue started with an introductory presentation followed by a round of questions to the experts. The key points from this dialogue were:

- The transition to circular economy will reduce natural resource extraction, reduce GHG emissions and support biodiversity regeneration.
- Circular economy advocates for keeping the product in use for longer, which results in the need for fewer new products. How that can work for the companies is an area for creating new and innovative business models.
- No level of innovative research and technology could help achieve a circular economy unless the systemic issues are fixed.
- The advance in innovation and technology of the current economic system cannot outweigh the environmental damage that has already occurred.
- There are links between circular economy and climate adaptation, especially in the waste management area. Creating zero waste systems helps cities to adapt to changing weather patterns. More research in this field could be explored systematically in GEO-7.

Continuation: Review of workplan and budget

The Secretariat provided a detailed explanation of the timeline and budget. Comments raised on this section included:

- More information on educational materials and on the fellowship program should be introduced.
- The production period in the timeline is considered short, extra time for drafting should be added. Also, it is reasonable to give enough time for the intergovernmental and expert review since the second order draft will be quite substantive and long.

- The importance of avoiding duplication in the digitalization process was mentioned, highlighting the need for clarity on the link between GEO and the World Environment Situation Room (WESR) as well as with other existing platforms.
- Questions on the funding gap and how this would affect the completion of the project were raised. In addition, it was asked to clarify what is the minimum cost of the GEO-7 process.
- An option to reduce the budget needs could be to switch some meetings from in-person to online.
- More regional outreach should be organized by regional offices to reach out to a wider audience.

The Secretariat responded that:

- The Masters level 11 weeks course is under production. The GEO fellows will take the course when the educational materials are developed. More information will be shared once the course is available.
- The tight timeline requires a 10% time commitment from the experts to produce GEO-7.
- The digital platforms mentioned have different functions, one will allow the authors to do mapping and graphing from live data sources and keep the graphics updatable
- The READ platform will be used for review process which allows the reviewers to provide comments directly in the platform and helps streamline the peer review process.
- The mapping and graphing platform will be linked to WESR.
- Some activities such as translations, supporting services, awareness raising and outreach are dependent on funding availability.
- A change in the date of UNEA-7 would not affect the budget since the GEO-7 report would be available in late 2025 and be endorsed in 2026 during UNEA.
- Virtual meetings allow a maximum of three hours each day due to time zone differences and can only be effective for specific meetings. However, the level of cooperation between authors and the coherence work needed to advance the chapters cannot be achieved through online meetings.

Discussion on DPSIR key issues

The Co-chairs of the GEO-7 assessment gave a presentation on the updated DPSIR framework based on the comments collected from both governments and experts. It was agreed that the DPSIR analytical framework for the GEO-7 assessment should be adapted for this innovative GEO-7. The updated graphic of the framework now includes drivers such as demographics; economic and finance; urbanization; scientific and technological innovation; cultural, social (including inequity, gender, values, lifestyles, among others); political and institutional processes. It also considers pressures, both from human interventions on the environment (including shocks such as pandemics, human-made disasters and conflicts) and natural processes (e.g., earthquakes, volcanoes and extreme natural events). The main comments were:

- Drought was discussed in previous days so that water scarcity should be added

- under *Pressures*.
- Under *Responses*, it should be considered how to integrate the response to conflicts.
 - The DPSIR framework should be used in combination with other conceptual and assessment frameworks since this GEO-7 will focus on transformations and solutions pathways.
 - Ocean acidification and sea level rise should be added somewhere since they are significant issues in some small island developing states.
 - The interactions between the drivers should be considered.
 - Some wording issues were highlighted, such as changing *sustainable human development* to *sustainable development* and replacing *man-made* disasters to *human-made* disasters.

The Co-chairs responded that:

- Land degradation under *State and Trends of the Environment* section should be changed to land degradation and water scarcity.
- This particular DPSIR framework will be supplemented by other constructs and some text about the interactions will be added.
- Ocean acidification and sea level issues will be added.
- Some text will be added to explain the interactions to accomplish the different sectoral transformations within the sectors themselves.
- The comments about wording will be considered and addressed in the updated version.

The updated DPSIR diagram was shared together with other graphics with the participants for their closer review. The discussion would continue the next day.

The Secretariat then invited GRID-Arendal, CEDARE, UNEP's Communication Division and UNEP's Big Data Branch to present on the digitalization of GEO-7. The presentations included the creation of an online peer review platform (READ), the links to the data sources in the WESR, the author's collaboration platform as well as the mapping and graphing platform. The digital transformation of GEO will also include a revamp of the GEO website, to create a more browsable version of the website to make it a much more resource-focused page. The participants appreciated the fact that this work on the digitalization of GEO has already started at different levels. Some comments were provided to the peer review platform to help improve system and the participants expressed their interest to hear more updates about the digitalization of GEO-7 in the future.

Day 4

Review and discussion of the remaining challenging issues in the scoping document

The Co-chairs suggested starting the session with discussions on the challenging issues in the document. Therefore, the focus was on the DPSIR framework. The text suggested by the Co-chairs of the assessment to accompany the DPSIR included:

- This is an assessment of human-environment interactions using the DPSIR

framework.

- This is not a linear system since the pressures interact with each other and the drivers interact with each other.
- This framework will be used in conjunction with other frameworks.

The participants appreciated the improvement of this updated DPSIR framework. Some minor suggestions were noted, and the co-chairs suggested not to make the diagram more complicated. The idea of the framework is to provide the authors with a starting point for drafting the document. Some participants asked to submit additional comments virtually and it was agreed that the Secretariat will allow for a provisional adoption at the meeting, followed by a 72 hour silence procedure for final adoption of the document, starting with a cleaning up of the document at the end of the meeting.

After discussion on the DPSIR framework, new figures, including examples of the natural systems, human systems and governance systems were presented by the Secretariat. The natural systems included atmosphere, freshwater ecosystems, terrestrial ecosystems and saltwater ecosystems, within each of those the triple planetary crisis and land degradation will be discussed. Human systems included energy, food and materials/waste systems which need to be transformed by technology, governance, finance and behavioral change. Governance systems have an impact on environmental, social and economic factors and it was proposed to have solutions pathways in the technology policy, financial and behavior areas. After the interventions from participants, it was agreed that:

- The GEO-7 would develop solutions pathways for transforming a) economic and financial models, b) energy systems, c) food systems, d) linear economic models toward circularity, and d) environmental systems.
- The assessment will include an outlooks section which will a) assess different scenarios, including the business-as-usual scenarios and target-seeking scenarios and their socio-economic implications, b) present solutions pathways for countries with different economic, resource and environmental situations, and c) assess the likely regional and sub-regional implications of the different solutions pathways.
- The DPSIR graphic will be added in the scoping document but the three frameworks for natural systems, human systems and governance systems will not be included in the document.

Upon completing the review of the main challenging issues, the Secretariat reviewed the entire document for any final changes from the experts. Some key elements on the final review include:

- GEO-7 will include regional specificities, but the way to implement these is still to be discussed. It was proposed to add two regionally focused chapters in the *State and Trends of the Environment* section and the *Outlooks* chapters.
- Methodology chapters for the solutions pathways and the outlooks would be needed to ensure the scientific credibility of these approaches.
- There were some concerns that biodiversity would be lost so the language describing how biodiversity would be addressed would be adjusted to make it more explicit in the document.

The final discussion was about the workplan and budget. The Secretariat stated that

the workplan will be finalized by addressing the comments received during the meeting. The revised table of activities will be added to the scoping document for review. Also, the different budget scenarios will be provided to be considered by experts and allow flexibility if the full budget is not obtained.

Due to the large number of comments, the draft scoping document will not be approved provisionally at the end of the meeting. The Secretariat will share a revised draft after this meeting, allowing an additional 5 days to provide further comments via email. Approval will be sought through a 72-hour silence procedure.

The meeting was adjourned at 18h00 on 20 October 2022, with thanks from the Director of UNEP Science Division to the experts and Secretariat for a very productive discussion.

Action items

- The Secretariat will prepare an outcomes document for the meeting.
- The Secretariat will update the GEO-7 timeline figure and the budget figure for final review.
- The Secretariat will clean up and edit the revised draft scoping document and circulate it via email for a 72-hour silence procedure and final adoption on a 'no objection basis'.

Annex 1: Participants List

First Name	Last Name	Affiliation	Nationality
Sukumaran	Morical Parameswaran	Center for Green Technology & Management	India
Peter	King	Regional Centre in Bangkok, Institute for Global Environmental Strategies (IGES)	Australia
Gerald	Nagtzaam	Monash University	Australia
Ameen	Alhammadi	Environment Protection Authority-Ministry Water and Environment	Yemen
Ying	Wang	Tongji University Institute of Environment for Sustainable Development.	China
Yi	Huang	Peking University	China
Wasantha	Dissanayake	Ministry of Environment, Sri Lanka	Sri Lanka
Prem Singh	Tharu	Asia Indigenous Peoples Pact (AIPP)	Thailand
Jinwon	Seo	National Institute of Environmental Research	South Korea
Pradeep	Mahapatra	UDYAMA	India
Yumi	Chung		Korea
Shahriar	Hossain	ESDO-Environment and Social Development Organization	Bangladesh
Majed	Aladwan	Ministry of Environment - Jordan	Jordan
Leila	Bendifallah	Boumerdes University	Algeria
Mohamed H.	Farag	Minister of Environment and Climate Change	Qatar
Farah	Bouqartacha	Ministry of Energy Transition and Sustainable Development / Department of Sustainable Development	Morocco
Mohamed	Loucif seiad	Center for Development of Advanced Technologies (CDTA)	Algeria
Arthur	Eijs	Ministry of Infrastructure and Water Management	Netherlands
Suzanne	Elder	Ministry of Environment and National Beautification, Green and Blue Economy	Barbados
Martin	Brocklehurst	Science and Technology Major Group	USA
Ines Houarbi	Ben Salah	Observatoire Tunisien de l'Environnement et du Développement Durable	Tunisia
Dr. Thuraya	Al Sariri	Environment Authority	Oman
Samir	Kumar Das	International Movement for Advancement of Education Culture Social & Economic Development (IMAECSED)	India
Osman Felix	Cole	EARTH REGENERATIVE PROJECT SIERRA LEONE - NGO	Sierra Leone
Philip	Raymond	UK Government	United Kingdom
Gillian	Stanislaus	Environmental Management Authority	Trinidad and Tobago
Hans-Joachim	Hermann	German Environment Agency	Germany
Krisztina	Prém	Asia Indigenous Peoples Pact (AIPP)	Hungary
Silvija	Ajredini	Ministry of Economy and Sustainable Development	Croatia
Kwadwo	Opoku-Mensah	Environmental Protection Agency	Ghana
Mohammed A.	Ibrahim	Minister of Environment and Climate Change	Qatar
Sheila	Ashong	Environmental Protection Agency	Ghana
Anteneh	Teshome	Federal Democratic Republic of Ethiopia Environmental Protection Authority	Ethiopia
Lucianara	Andrade Fonseca		
Kishore	Boodhoo	Senior Lecturer, Faculty of Science	Republic of Mauritius
Denisa	Shehu	National Environment Agency	Albania
Sergio	Salazar Alzate		
David Antonio	Amao	Ministerio del Ambiente	Peru
Lucon	Oswaldo	University of São Paulo	Brazil
Lorenzo	Ciccarese	Italy's Higher Institute for Environmental Protection and Research	Italy
Mustafa	Terhzaz		
Chandani	Appadoo	Department of Biosciences and Ocean Studies, Faculty of Science, University of Mauritius and not Faculty of Law and Management	Republic of Mauritius

Meri	Harutyunyan	Civil Servant	Armenia
Osman	Mirghani Ali	Higher Council for Research	Sudan
Sali	Bache	Monash University	Australia
Zahra	Abu Taha	Zatari Refugees Camp, OXFAM GB	Jordan
Richard	Suckoo	Coastal Zone Management Unit	Barbados
Alberto	Santos Capra	Ministerio de Ambiente y Desarrollo Sostenible	Argentina
Miroslav	Havránek	Czech Environmental Information Agency (CENIA)	Czechia
Marine	Arabidze	LEPL National Environmental Agency	Georgia
Hilal Hammad	Al-Qassabi	Sultanate of Oman Environment Authority	Oman
Felicia	Adams-Kellman	Member State/Government	Guyana
Eric	Fongoh	International Centre for Environmental Education and Community Development (ICENECDEV)	Cameroon
Fagr	Abdel-Gawad	National Research Centre	Egypt
Indu K,	Murthy	Center for Study of Science, Technology & Policy	India
Yousef	Nasr		
Robert	Watson	Former chair of the IPBES and IPCC processes and major lead of the Making Peace with Nature report	UK
Edgar E	Gutierrez-Espeleta	Professor at Universidad de Costa Rica	Costa Rica
Storkersen	Oystein Rune	Royal Norwegian Embassy	Norway
Esha	Mitra	Children and Youth organizations	India
İlkay	Pekmez	Public Servant	Turkey
Cataleya	Han	Universal Versatile Society (UVS)	Australia
Florence	Daguitan	Indigenous Peoples International Center for Policy Research and Education	Philippines
Ingrid	Coetzee	ICLEI - Local Governments for Sustainability South Africa	South Africa
Luis Céspedes	Reyes	Member State- Peru	Peru
Schenstead-Harris	Leif	Government of Canada	Canada
Yuri	Beraun	Member State- Peru	Peru
Felix	Dodds	Water Institute the University of North Carolina	United Kingdom
Muhammad	Ameen Keryo	UNEP and GEF	Pakistan
Anna	Mampye	Minister of Forestry, Fisheries and the Environment	South Africa
Jacob	Klaus	Free University of Berlin	Germany
Carla	Valle-Klann	UNEP - Secretariat of the Basel, Rotterdam and Stockholm Conventions	Brazil
Diego	Martino	Asesoramiento Ambiental Estratégico (AAE) - Universidad ORT Uruguay	Uruguay
Merylene	Chitharai	African Council of Religious Leaders & Religions for Peace	South Africa
Rama	Perumal	Sadayanodai Ilaingar Narpani Mandram- (SINAM)	India
Peter	Harris	Assessment Expert- Australia	Australia
Alison	Collins	Chief Science Adviser for the Ministry for the Environment	New Zealand
Mike	Nsereko	Member State- Uganda	Uganda
Cathy	Maguire	European Environmental Agency	Ireland
Nyovani	Madise	African Institute for Development Policy (AFIDEP)	Malawi
Ece	Saraoglu	Ministry of Environment, Urbanization and Climate Change	Turkey
Menekse	Keski		
Zhou	Xin	Institute for Global Environmental Strategies (IGES)	China
Yolanda	Guzmán Guzmán	Member State- Peru	Peru
Mulubrhan	Ghebreyohannes	Ministry of Land, Water and Environment	Eritrea
Marion	Cheatle	Independent. Former UNEP staff member	United Kingdom
Rantala	Salla	Finnish Environment Institute	Finland
Nicolas	Jolivald	Ministry of Ecological Transition - Ministry of Energy Transition	France
Lucy	Nganga	Government	Kenya
Diana	Mangalagiu	NEOMA Business School	France
Abdulrahman	Ali Alshehri	Member State- Saudi Arabia	Kingdom of Saudi Arabia
Paul	Lucas	Environment Assessment Agency (PBL)	Netherlands
Jerome	Lugumira	National Environment Management Authority	Uganda

Lundblad	Ninni	Swedish EPA	Sweden
Charles	Lange	National Environment Management Authority (NEMA)	Kenya
Elizabeth	Cárdenas	Member State- Peru	Peru
Debora	Ley	UN- Economic Commission for Latin America and the Caribbean	United States of America
Keri J	Holland	U.S. Department of State	United States of America
Emmanuel	Rushema	Rwanda Environment Management Authority	Rwanda
Kätlin	Weinzierl	Member State- Estonia	Estonia
NAGAOSA	DAISUKE	Embassy of Japan in Kenya	Japan
Kalim	Shah		
Davies	Jonathan	University of British Columbia	United Kingdom
Tambe	Honourine Enow	Africa Climate and Environment Foundation	Cameroon
Bonmwa	Fwangkwai	African Circular Economy Alliance	Nigeria
Che Gilbert	Ayunwi	OIPA - International Organization for Animal Protection - ONLUS	Cameroon
Pierluigi	Manzione	Italian Ministry for Ecological Transition	Italy
Carlos	Cordero Vega	Ministry of Environment and Energy	Costa Rica
Marek	Haliniak	Member State- Poland	Poland
Rasa	Sceponaviciute	Deputy Permanent Representative to UNEP	Lithuania
Ram Charitra	Sah	Stakeholder Group-Nepal	Nepal
Lizzy	Kanashiro	Member State- Peru	Peru
Patricia	Patron	Member State- Peru	Peru
ANDRES	DUQUE SOLIS		
Dipayan	Dey	South Asian Forum for Environment	India
Ania	Grobicki	Sustainability Management School of Switzerland	South Africa
MONICA DE	GREIFF LINDO		
Abdifatah	Hared Mohammed	Member State- Somalia	Somalia
Marta	Dopazo Gonzalez		
Kenset Rosales	Riveiro	Ministerio de Ambiente y Recursos Naturales	Guatemala
Veer	Ramjeawon		
Alkemade	Gudi	Member State- Netherlands	Netherlands
Nogar	Kronfeld-Schor	Israel Ministry of Environmental Protection	Israel
Lea	Shanley	Science and Technology Major Group	USA
Mohamed	Eisawy	Egyptian Ministry of Environment	Egypt
Omar	Ruiz		Peru
Erika G	Tang	Mission of Panama	Panama
Layla	Ali Sabeel	Government	Bahrain
Zaghloul	Samhan	Environment Quality Authority	Palestinian Territories
Karim			
Mohammed	Al-Kalbani	Environment Authority	Oman
Medani	Bhandari	Akamai University, Hilo, Hawaii, USA	Nepal
Nassima	Oucher	Renewable Energy Development Center	Algeria
Maria Cecilia	Londoño	Instituto Humboldt	Colombia
Michelle	Tan	ADEC INNOVATIONS	Philippines
Patrick	Schroeder	Chatham House	Germany
FERDINANDO	DIDONNA	Italian Speleoological Society	Costa Rica
Javed	Qureshi	HAMRAAH FOUNDATION	India
Mohammed Essa	Samman		
Manuel García	Rosell	Member State- Peru	Peru
Mohamed	Abdelraouf	Sustainability Research Program Director	Egypt
Cani	Eduart	Independent expert	Albania
Frida Rodriguez	Cecilia Pacheco	Member State- Peru	Peru
Vishal	Narain	Management Development Institute Gurgaon	India
Leiter	Timo	London School of Economics and Political Science	United Kingdom
Candela Maria	Nassi	Ministry of Environment and Sustainable Development	Argentina
Nikolai	Dronin	Moscow State University	Russia
Patel-weynand	Toral	U.S. Forest Service, Research and Development	USA
José	Gálvez		
Lourenco	Antonio Vaz	Member State- Guinea-Bissau	Guinea-Bissau
Hilary	Sousa	Ministry of Foreign Affairs	Angola
Daniel A	Nuñez	Member State- Peru	Peru

CARMEN	MEJIA	Minister of Environment of Peru	Peru
Abdelrahman	Alkhalifa	Higher Council for Environment and Natural Resources	Sudan
Ruth Viola	Spencer	Women Major group	Antigua and Barbuda
Dušica	Pešević	University of Banjaluka	Bosnia & Herzegovina
Moufarreh	Amal		
YORITA	YUME	Embassy of Japan in Kenya	Japan
Cheikh	FOFANA	Member State- Senegal	Senegal
Damaris	Carnal	Federal Office for the Environment	Switzerland
Anshu	Singh	Ministry of Environment, Forest and Climate Change	India
Rolenas Tavue	Baereleo	Vanuatu	
Canan Esin	KÖKSAL	Environmental Expert	Turkey
Dicksha	Mewa Hurdowar	Member State- Republic of Mauritius	Republic of Mauritius
Clement	Payeur	Ministry of Foreign Affairs	France
Jane	Bemigisha	ESIPPS International Ltd	Uganda
Rafael	Monge	Ministry of Environment and Energy	Costa Rica
Ahmed Azeez	Anwar	Ministry of Environment Climate Change and Technology	Maldives
Meredith	Cumberbatch	Member State	Latin America and the Caribbean Group
Luis	Céspedes	Member State- Peru	Peru
Tim	Benton	Chatham House	United Kingdom
Collas	Pascale	Environment and Climate Change Canada	Canada
Blaise Freddy	N'GUIMBI	Member State- Democratic Republic of Congo	Democratic Republic of Congo
Virginia	Fernandez	Member State- Uruguay	Uruguay
Deepeeka	Kaullysing	Senior Lecturer and Head of Department of BioSciences and Ocean Studies, Faculty of Science	Republic of Mauritius
Rachel	Tushabe	REMA	Rwanda
Mike	Nsereko	Member State- Uganda	Uganda
Vanina	Pietragalla	Member State- Argentina	Argentina
Kemraj	Parsam	Member State/Government	Guyana
Smita	Sulakshana Devi GOORAH		Republic of Mauritius
Amel	Abdalrazeg	Higher Council for Environment and Natural Resources	Sudan
Galina	Bublikova		
Komorski	Christina	Government of Canada	Canada
Eneida	Rabdishta	Member State- Albania	Albania
Jacques-André	Ndione		
Marie	Michaille		
Jacques	Alexis Radhay	Member State- Republic of Mauritius	Republic of Mauritius
Mustafa	Terhzaz		
Nicolas	CH-NFP		
José	Gálvez		Guatemala
Mosimanegape	Nthaka	Ministry of Environment and Tourism	Botswana
Rovena	Agalliu		
Noor	Mauliddina	Children and Youth organizations	Indonesia
Djatougbe	Aziaka	WELFARE TOGO	Togo
Maria Candela	Nassi	Ministry of Environment and Sustainable Development	Argentina
Doreen	Ng'andu	Children's Environmental Health Foundation	Zambia
Marthe	Finda Kamano	Member State- Republic of Guinea	Republic of Guinea
Alan	Oktiabr	Kyrgyz Republic	Kyrgyzstan
Annie	Mwanza	Government of Malawi	Malawi
Toghrol	Feyziyev	Ministry of Ecology and Natural Resources of the Republic of Azerbaijan	Azerbaijan
Sabrina	Boucetta	Université 20 août 1955 - Skikda	Algeria
Jose Gildardo	Galvez Merida		
Takashi	Otsuka	Institute for Global Environmental Strategies	Japan

Apologies

First name	Last name	Affiliation	Nominated by
Iveth	Torres Bonilla	gobierno	Panama
Emma	Gordon	Energy and Investment Analyst, IEA	
Soeryo	Adiwibowo	Ministry of Environment and Forestry of Republic Indonesia	Indonesia
Laksmi	Wijayanti	Ministry of Environment and Forestry of Republic Indonesia	Indonesia
Joseph	Kiruki	Member State- Tanzania	Tanzania
Teona	Karchava	Ministry of Environmental Protection and Agriculture of Georgia	Georgia
Asia	Akule	Member State- Tanzania	Tanzania
Thomas	Chali	Member State- Tanzania	Tanzania
Bernard	Niyongendako	Member State- Burundi	Burundi
Miklós	MARTON	Member State- Hungary	Hungary
Richard	FILCAK	Foresights and SOER Group	Slovakia
Sacko	Modibo	Ministry of Environment	Mali
Razan	Bucheeri	Ministry of Oil and Environment	Bahrain
Pascale	Collas	Environment and Climate Change Canada	Canada
Chatchai	INTATHA	Ministry of Natural Resources and Environment	Thailand
Désire	OUEDRAOGO	Ministry of Environment	Burkina Faso
Bongani	Nkhabindze	Eswatini Environment Authority	Eswatini
Sergio	Federovisky	Ministry of Environment and Sustainable Development	Argentina
Dhekra	GHARBI EP MEZLINI	Ministère de l'Environnement	Tunisia
Maha	Maayta	Ministry of Environment	Jordan
Bruna	Kohan	Ministero della Transizione Ecologica	Italy
Micaela	Bonafina	Ministry of Environment and Sustainable Development	Argentina
Tserendulam	Shagdarsuren	Ministry of Environment and Tourism	Mongolia
Batbaatar	Batkhuu	Ministry of Environment and Tourism	Mongolia
Silke	Campos Conde	Member State- Peru	Peru
Eduardo	Williams Buendía Calvo	Member State- Peru	Peru
Milagros	del Pilar Verástegui Salazar	Member State- Peru	Peru
Harol	Gutiérrez Peralta	Member State- Peru	Peru
Bárbara	Saulesleja	Member State-Argentina	Argentina
María	Laura Corso	Member State- Argentina	Argentina
Hakim	Lounici	University Bouira	Algeria
Sandhya	Dindyal	Member State- Republic of Mauritius	Mauritius
Theesan	Bahorun	Member State- Republic of Mauritius	Mauritius
Silvio	Albuquerque e Silva	Brazilian Embassy in Nairobi	Brazil
Claudia	Kabel	German Environment Agency	Germany
Margi	Prideaux	Science and Technology Major Group	Australia
Cody	Eckert	Global Operations of MUN Impact which is a member of Youth & Children Major Group	USA
Kalpna	Chaudhari	Institute for Sustainable Development and Research, ISDR, Anchor Kutchhi Engineering College	India
Alimamy	Sesay	UNEP, AND SIERRA LEONE GOVERNMENT LINE MINISTRIES	Sierra Leone
Daldy Rustichel	YOUBOU BIAGHA	Association Congolaise pour le Développement Agricole ACDA	Congo
Karvika	Thapa	Rural Area Development Programme	Nepal
Rasha	Sukkarieh	Nusaned	Lebanon
Ahmed	Fathy	Youth Love Egypt Foundation	Egypt
Narayan	Solanke	Universal Versatile Society	India
Christoph	Wildburger	International Union of Forest Research Organizations (IUFRO)	Austria
Eid	Mersal	FNB	Egypt
Mohammed	Mansour	FNB	Egypt
Dominic	Waughray	BIMG	UK
Samy	Rezk	FNB	Egypt

Nadejda	Komendantova	International Institute for Applied Systems Analysis	Austria
Joseph	SEVERE	Union des Amis Socio Culturels d'Action en Developpement (UNASCAD)	Haiti
EDWAN	NGUM TAH	Stakeholder Group	Cameroon
Fabian	Wagner	International Institute for Applied Systems Analysis	Germany
Rita	Araujo	Youth Leader of MUN Impact which is a member of Youth & Children Major Group	Portugal
Shennon	Sequeira	Board Member of MUN Impact which is a member of Youth & Children Major Group	India
George	Veni	US National Cave and Karst Research Institute	USA
Ke	Wang	PACE	
ANDREW	ONWUEMELE	NIGERIAN INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH (NISER)	Nigeria
Apoorva	Arya	Founder and CEO, Innovation Lab	
Azza	Nourelaime	Higher Council for Environment and Natural Resources	Sudan
Marwa	Mohammed Elghanem	Minister of Environment and Climate Change	Qatar
Farida	Nasser Elmoussa	Minister of Environment and Climate Change	Qatar
Mashaël	Ahmed Alajji	Minister of Environment and Climate Change	Qatar