

Our Ref: UNEA/GEO7/go/1

September 26, 2022

## Outcomes Document

### Ad hoc open-ended Meeting for the Assessment Procedures and Supporting Functions of the Global Environment Outlook (GEO)

September 19-22, 2022

The experts nominated by Member States for the ad hoc open-ended meetings of the seventh Global Environment Outlook (GEO-7) met virtually to review and adopt the assessment procedures document.

#### Agenda items included:

1. Election of meeting officials.
2. Section-by-section review and adoption of the draft procedures for the preparation of GEO assessments.
3. Presentation and discussion on the proposed approach for identifying GEO supporting functions.
4. Introduction of the GEO-7 assessment report co-chairs and vice-chairs.

#### On these agenda items the meeting decided:

- The roles of the Intergovernmental and Multi-stakeholder Advisory Group (IMAG) and Multidisciplinary Expert Scientific Advisory Group (MESAG) are now defined as the terms of references available publicly.
- The MESAG will focus on scientific credibility issues, and the IMAG will focus on policy relevance issues.
- The Executive Director of the United Nations Environment Programme (UNEP) will seek advice from the IMAG and MESAG in their specific areas of responsibilities.
- The IMAG is encouraged to seek advice from the MESAG and the co-chairs and vice-chairs of the assessment, when needed.
- The IMAG and MESAG should not be involved in the drafting of the Summary for Policymakers (SPM).
- A section on Outreach and Awareness Raising should be added to the procedures document.
- A flow chart of the relationship between different groups in the GEO process should be added to the procedures document.
- Following the definitions agreed in the procedures document, GEO assessment reports should be accepted without line-by-line or section-by-section review.
- Technical documents, such as the procedures document, or process documents, such as the scoping document, should be adopted through a section-by-section review process.
- SPMs prepared for each GEO assessment report should be approved through a line-by-line review process.
- The Secretariat plans to identify intergovernmentally defined needs and terms for capacity building, knowledge generation and support for policy making through the production of a capacity development benchmarking study.

- The revised GEO procedures document is adopted on a provisional basis.
- The co-chairs and vice-chairs of the GEO-07 assessment report selected by the UNEP's Executive Director were introduced and welcomed.
- The October ad hoc open-ended meeting will follow these adopted procedures to conduct a section-by-section review of the scoping document.
- The Secretariat will edit and clean up the provisional procedures document and submit it to the participants of the ad hoc open-ended meeting for a 72-hours silence procedure to seek adoption of the final version.

Rapporteur	Signature
Ms. Anna Mampye	

### ***Meeting Summary***

The meeting was opened by the Secretariat. A three-hour online session was held on each of the four days of the meeting.

### **Session 1**

#### **Opening of the procedures meeting and adoption of agenda**

The meeting began with the election of meeting officials for the GEO assessment procedures and supporting functions meeting. The selection of these officials was concluded on a no objection basis. Dr. Thuraya Al Sariri (Oman- West Asia) and Mr. Lorenzo Ciccarese (Italy- Europe) were elected co-chairs of the meeting, Mr. Miroslav Havránek (Czechia- Europe) was elected vice-chair and Ms. Anna Mampye (South Africa- Africa) was elected rapporteur. Due to personal reasons, the second vice-chair proposed by the Secretariat was not able to take on this role. A separate election process was proposed to identify the second vice-chair.

The co-chair then invited the Director of UNEP Science Division to provide opening remarks. He highlighted the importance of the meeting, mentioning the triple planetary crisis that we need to overcome, the gap between scientific evidence, the solutions proposed by global assessments and the required action by policy and decision makers. He added that the meeting will discuss the assessment procedures of future GEOs, including the next solutions-focused GEO which will help ensure the scientific credibility, political legitimacy and policy relevance. The director of UNEP Science Division concluded by wishing participants success in their work throughout the remaining days of the meeting.

The co-chair of the meeting asked if there were any changes to the provisional agenda for the meeting. After adopting the agenda of the assessment procedures meeting, the Secretariat provided a short general briefing on the proposed GEO-7 assessment procedures document. The Secretariat also presented the GEO-7 process and timeline, stating that this GEO will be 'solutions' oriented and digital. Following these presentations, questions were raised by the participants about digital meetings,

collaborating centers, the relationship between the procedures meeting and scoping meeting. The Secretariat responded that:

- For the digital GEO there are plans to build two new platforms. One is an online collaboration platform and the other one is a mapping and graphing platform. The mapping and graphing platform will be able to showcase live data sources.
- For collaborating centers and technical support units, as of now there is still no clarity on their actual role and how the collaborating centers and the authors would work together. However, once the call for expressions of interest is completed for the collaborating centers and those that will participate in the GEO-7 are identified, their roles will be better defined.
- Most of the GEO meetings will be virtual/hybrid, but there will be a mix of in-person and virtual meetings. The in-person meetings are for the author teams to be able to complete certain drafts, the 1<sup>st</sup> order draft and the 2<sup>nd</sup> order draft and address review comments. The Secretariat will plan for the minimum number of in person meetings, which is four for the author teams and one meeting to finalize the draft Summary for Policymakers.
- Both the procedures meeting and the scoping meeting are ad hoc open-ended meetings and are interconnected. Regular meetings of the IMAG and MESAG, two smaller advisory bodies of between 25 and 35 people, will also be held to follow the whole process from beginning to end. The chairs of the different groups, the ad hoc open-ended meetings, the IMAG and MESAG will meet periodically as well as with the chairs of the report to make sure that there is coordination across the different GEO processes.

#### **Review of the draft GEO procedures document (sections 1-4)**

The co-chair proposed an organization of work that would focus the first three sessions of the meeting on reviewing the document section-by-section, to receive any additional comments or proposals the experts may have, and the last day would try to resolve any remaining complex issues by consensus, so that a clean version of the revised procedures document could be presented for preliminary adoption towards the end of that final session. The Secretariat presented the procedures document which was followed by a discussion section-by-section. Some comments collected from the peer review online platform (READ) were also mentioned when going through the document.

Experts began by reviewing the first four sections of the procedures document. Issues that were raised included:

- The wording of the procedures document should align with the UNEA resolution language on the definition and procedures for thematic reports should be improved.
- The roles of the IMAG and MESAG must be clarified.
- The definitions under 'clearance and endorsement process' section must not limit the actions of UNEA.
- Data sources such as citizen science should be included.
- A graphic showing the relationships between the different groups in the GEO process should be added to the document.

Proposals for changes to the text were collected offline by the Secretariat to produce a new version of the document for the next day's discussion. The procedures document

was amended between sessions 1 and 2 following the suggested changes and inclusions to the document by participants. The amended procedures document was shared with all participating experts prior to the commencement of session 2.

### **Session 2:**

#### **Continuation: Review of the draft GEO procedures document (sections 5 to 9.3)**

The amendments to the procedures document in sections 1-4 were reviewed as the first agenda item of session 2. The Secretariat clarified that the GEO process is undertaken by the Executive Director of UNEP, following the guidance from the IMAG, and the MESAG, and with periodic consultation with the Committee of Permanent Representatives (CPR). It was agreed to add an outreach and awareness raising section, which is where references to Indigenous and local knowledge would fit. Most comments raised by experts were addressed, and solutions to some of the comments raised were proposed by the Secretariat. The remaining issues would be discussed again on day 4.

The session continued with a review of sections 5 to 9.3 of the procedures document. Comments from the participants included:

- The typical timeline for GEO deliverables figure should be updated to include the timelines for reviewers and review editors. The need to add a footnote for abbreviations used in the figure.
- The roles of IMAG and MESAG in each of these sections needs to be clear.
- The Executive Director of UNEP will only seek advice from the IMAG on the items identified in Operative Paragraph 10 of Resolution 5/3.
- The IMAG should be encouraged to seek the advice of the MESAG and the co-chairs and vice-chairs on the assessment, when needed.
- The function for each advisory group should be clearly defined and neither the IMAG nor MESAG should be involved in the drafting of the SPM.
- The SPM should not be negotiated. The SPM drafting and review process should involve the co-chairs and vice-chairs of the assessment

Other questions about workplan and budget for GEO were also raised during the review and, the Secretariat clarified that these will be discussed during the October meeting when the GEO-7 scoping document is reviewed.

The procedures document was amended based on Session 2 discussions, suggested changes and inclusions, and the amended version was shared with all participating experts prior to the commencement of session 3.

### **Session 3:**

#### **Continuation: Review the draft GEO procedures document (section 9.4-to the end of the document)**

The meeting began with the Secretariat requesting a return to item 2 of the agenda on: Election of meeting officials for the GEO-7 procedures and supporting functions. A new vice-chair, Alberto Capra (Argentina- South America) was nominated and successfully elected by the participants on a no objection basis. The meeting then welcomed the new

vice-chair.

Amendments to sections 5-9.3 were then reviewed and discussed. On these sections there were suggestions on language consistency throughout the document as well as the advisory role of the IMAG and MESAG on the SPM. There was a need for further clarification in these sections. Clarifications on the following were provided by the Secretariat:

- Under section 5, there was a suggestion to revise the timeline graphic to give a clearer sense of the ad-hoc open-ended meetings, the review and approval of the SPM and the review and adoption of the scoping document or the assessment procedures document.
- In section 6, a suggestion was made to change the language to be more precise as to what is meant by deliverables versus activities.
- Under section 6, the Secretariat suggested to have 3 bullets that speak to the prioritization of assessments, prioritization and planning of assessments and lastly the supporting functions.
- In section 7, a suggestion was made to delete the text on initiation and to streamline the text on scoping and design.
- In section 8, there was a suggestion to change the language around the nomination and selection of experts. Rather than calling them the co-chairs and vice-chairs of the report the meeting suggested to call them the co-chairs and vice-chairs of the assessment.
- Under section 8, a suggestion was made to include the co-chairs and vice-chairs of the assessment as one of the groups that might be consulted in the selection of authors of the report.
- Under section 8, a suggestion was made to remove the references to MESAG. The MESAG is not meant to be consulted on the selection of coordinating lead authors, lead authors, fellows and review editors. Footnotes have been incorporated for the IMAG to consult with the MESAG.
- In section 9, there was a proposal from the Secretariat to retain comprehensive and thematic assessments together.

The session continued with the review of section 9.4 on *preparation of thematic reports*. Comments raised on this section included:

- Different views on the definition of thematic reports.
- Thematic reports and derivative reports should not be mixed in the procedures document.
- The value added of GEO is the intergovernmental and expert-led nature, therefore thematic assessments should be intergovernmental and expert-led.
- It is critically important that GEO retains UNEA approval for conducting thematic assessment reports.
- There should be a distinction between peer-reviewed and grey literature in this section.

The Secretariat then presented the rest of document including *Appendix 1*. The key points under this section included:

- Add a small section about copyright transfer and maintaining confidentiality of findings before the report is published.
- Suggestion by the meeting participants on the IMAG and MESAG roles during

the peer review process. If the advisory bodies have comments on the substance of the assessment, that should be provided through the peer review process.

The participants successfully completed the review of the whole procedures document by the end of session 3.

An information item was then provided to participants on how the Secretariat proposes to identify intergovernmentally defined needs and terms for capacity building, knowledge generation and support for policy making, as per the request in Resolution 5/3. In previous GEO processes the Secretariat has conducted various capacity-building activities, including support for national-level State of Environment reports, but now this has been formalized in the Resolution.

The Secretariat then invited the head of UNEP's Capacity Development Unit to present on the proposed capacity development benchmarking study. A presentation was given on the overview of UNEP's capacity building plans and the relationship to UNEP's science policy interface. The presentation also introduced two new initiatives; the data-driven environmental solutions hub and the capacity building benchmarking report which both aim to address the capacity building needs of Member States. The Secretariat summarized this information item by indicating that GEO team would collaborate with the Capacity Building Unit to identify the gaps on capacity development and where GEO can add value.

The assessment procedures document was amended after the discussions from experts on suggested changes and inclusions to the document. The amended procedures document was shared with all participating experts prior to the commencement of session 4.

It was agreed that the following challenging issues would be the main discussion items for session 4:

- The role of IMAG and MESAG in different procedures
- The definitions of the types of endorsement: approval/adoption/acceptance etc.
- The new text on outreach and awareness raising
- The text on thematic reports
- An updated version of the graphics

#### **Session 4:**

#### **Review and discussion on the remaining challenging issues in the assessment procedures document**

The co-chairs suggested that the session start with discussion of the challenging issues in the document. This discussion started with section 4.2 on the definitions of the clearance and endorsement processes. The main issues raised by participants on this section included:

- For the terms used, i.e., Adoption, Approval and Acceptance, the experts requested for clarity of these terms in what the Member States will endorse and if endorsements would mean that Member States support the analysis and

recommendations contained within the report.

The Secretariat explained the terminology used and suggested to change the terms used in the section before moving forward to reviewing the entire document. The following agreements were obtained on suggestions on the terms:

The initial terms will be retained, and reference to UNEA and the ad-hoc open-ended meetings will be removed.

- Acceptance: This is the endorsement of the full GEO assessments but does not include section-by-section or line-by-line review by Member States or experts. The final version of the GEO report will be presented for this type of endorsement at UNEA, which is one of the requirements of the Resolution.
- Adoption applies to the procedures and scoping meetings. Meaning 'adoption' is the endorsement of the procedures document and the scoping document based on a section-by-section review. Therefore, the term 'adoption' of the procedures document and the scoping document is a process of section by section and not line by line endorsement of the ad hoc open-ended meetings of Member States convened by the Executive Director upon request of UNEA.
- Approval describes the endorsement process for GEO's summaries for policymakers following a detailed line-by-line review by Member States.

The group came to agreement on retaining modified versions of the different types of endorsement of all the definitions in this section and that these would be included in the assessment procedures document.

The next discussion was on section 9.4, "Preparation of thematic assessments". These assessments are prepared on scientific, technical, and socioeconomic issues that are deemed appropriate and requested by UNEA. There was a suggestion to create a new section on technical and derivative reports, but this addition was not accepted. Most of the text in section 9.4 was deleted so that it only focused on the process for producing thematic assessments. The experts had no objections to the changes made, except for requests on language consistency and the role UNEA plays in identifying topics to ensure scientific credibility on thematic assessments.

The final challenging issue that was discussed was on the role of the IMAG and MESAG in different procedures. It was decided that the IMAG is meant to provide advice to the Executive Director on the requests in Operative Paragraph 10 in Resolution 5/3. It was therefore agreed that the MESAG would focus on scientific credibility issues, and the IMAG would focus on the policy relevance issues.

After completing the review of the main challenging issues, the meeting reviewed the entire document for any final suggested changes. The final language and edits made by the experts were refined and agreed upon by experts. The roles of the IMAG and MESAG were clearly defined across the document. The additional section on outreach and awareness raising was reviewed and agreed upon by the meeting. On the conflict-of-interest section, the suggestion was made to add copyright transfer and confidentiality guidelines as further information in this section. After all these discussions, the GEO procedures document was adopted on a preliminary basis.

Finally, the Secretariat made a special announcement of the appointment of the co-chairs and vice-chairs of the GEO-07 assessment report.

The co-chairs of the assessment are:

- Co-chair: Sir Robert Tony Watson, former chair of the IPBES and IPCC processes and co-lead of the Making Peace with Nature report.
- Co-chair: Dr. Nyovani Janet Madise, Director of Development Policy and Head of the Malawi office of the African Institute for Development Policy (AFIDEP).
- Vice-chair: Dr. Edgar E. Gutierrez-Espeleta, former President of UNEA, Minister of Environment and Energy of Costa Rica. Also, professor at Universidad de Costa Rica
- Vice-chair: Prof. Ying Wang, Dean of Tongji University Institute of Environment for Sustainable Development.

Following the announcement, the experts at the meeting expressed a warm welcome to the co-chairs and vice-chairs of the assessment.

The meeting was adjourned at 18h00 on 22 September 2022, with thanks from the co-chairs 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 produce a flow chart of the relationships between different groups.
- The Secretariat will clean up and edit the revised draft and circulate it via email for a 72-hour silence procedure and final adoption on a 'no objection basis'.
- The Secretariat will send communications about the preparation and participation for the October meeting.



## 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	Alhammedi	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 María	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	Terhaz		
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
Sabrine	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 Calvo Buendía	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
Kalpana	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	Waghray	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

## **Annex 2: Profiles of Co-chairs and Vice-Chairs of the Assessment**

### **Sir Robert Tony Watson, CMG, FRS**



His career has included scientific advisor in the Office of Science and Technology Policy, White House; chief scientist, World Bank; chief scientific advisor, UK Department of Environment, Food and Rural Affairs; and strategic director for the Tyndall Center, University of East Anglia, UK. He has chaired, co-chaired or directed the WMO/UNEP stratospheric ozone depletion assessments, Global Biodiversity Assessment, Millennium Ecosystem Assessment, UK National Ecosystem Assessment and its Follow-on, Intergovernmental Panel on Climate Change, the Intergovernmental Assessment of Agricultural Scientific and Technology for Development, the Intergovernmental Science-Policy Platform for Biodiversity and Ecosystem Services, and UNEP's Making Peace with Nature. Awards include a Knights Bachelor (2012), Companion of the Order of Saint Michael and Saint George (2003); Fellow of the Royal Society (2011), member of the American Philosophical Society (2020), honorary member of the AMS (2021), UN Champion of the World for Science and Innovation (2014), the Asahi Glass Blue Planet Prize (2010).

### **Dr. Nyovani Janet Madise**



Nyovani is the Director of Development Policy and also Head of the Malawi office of the African Institute for Development Policy (AFIDEP). Her work at AFIDEP focuses on research to accelerate the achievement of the Sustainable Development Goals and promoting the use of evidence among African decision-makers for the formulation of strong development policies and programmes.

Nyovani has a degree in Mathematics and Economics from the University of Malawi; MSc and PhD in Social Statistics from the University of Southampton and Doctor of Science (Honoris Causa) from the University of Aberdeen. She worked for about 25 years at the University of Southampton until 2018. She held roles such as: Professor of Demography and Social Statistics; the University's lead for Equality, Diversity, and Inclusivity; Associate Dean (Research); Deputy Head of School; and Director of the University's Public Policy Unit. Nyovani previously worked in Kenya and at the University of Malawi. Nyovani is Vice-President and President-elect of the Union of African Population Studies.

Nyovani sits on many boards including: Plan International Inc; Liverpool School of Tropical Medicine; AmplifyChange; the Population Council; UKRI's GCRF; NIHR's Global Health Research programme, and NWO-Wotro Sexual and Reproductive Health and Rights programme.

### Prof. Edgar E. Gutierrez-Espeleta, Ph.D.



Edgar E. Gutierrez-Espeleta, a Costa Rican by birth, obtained his B. Sc. in Statistics from the University of Costa Rica, and his M. Sc. (84) and Ph. D. (91) in Forest Biometry from Iowa State University, USA. He taught at University of Costa Rica (UCR) from 1982 until 2014 when he retired as a full professor. He founded, in 1997, the Development Observatory, a research unit at UCR dealing with sustainable development issues particularly, the development of indicators, indices and ways to present data for decision makers, and was its director until 2005 when he became Chair of the School of Statistics at the same university.

He has written more than 40 scientific articles, in national and international peer reviewed journals, and a book on Statistical Methods. Since 1997 through 2003 he was a member of the Scientific Steering Committee of the IHDP Project Global Environment Change and Human Security. Prof. Gutierrez-Espeleta collaborated with UNEP Global Environment Outlook projects in Latin America and the Caribbean and co-lead the first two GEO LACs and the regional environmental data portal to support the Forum of Ministers of Environment of Latin America and Caribbean, among others.

In 2003 he was the Director of the project: Environmental indicators and variables for the Initiative of Latin American and the Caribbean for Sustainable Development for the World Bank & UNEP-ROLAC. He was also a member of IPCC AR V and Vice President of the Bureau of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention of Biological Diversity (1996-1998). He has lead projects, besides UNEP, for UNDP, WB, IDB and UNSD. He was Minister of Environment and Energy for Costa Rica from 2014 to 2018. He was also the President of the Second and Third United Nations Environment Assembly in 2016 and 2017 and co-chair of the negotiation of the Summary for Policy Makers of GEO in 2019. In 2020 he has been appointed as Council Member of Hainan Institute of National Park, China, until 2023. Since 2020 he has been serving a Special Envoy for LAC for the UNCCD. He is member of the United Nations High-Level Panel on the Development of a Multidimensional Vulnerability Index, appointed by the President of the UN General Assembly.

### Prof. Ying Wang



Prof. Wang is now the Professor in College of Environmental Science and Engineering, Tongji University. She received her BSc in 2007 from Wuhan University and her PhD in 2012 from Tsinghua University. From 2009 to 2011, she worked at Pacific Northwest National Laboratory (PNNL), Richland, U.S.A. Prof. Wang's current research interests include analysis and control of water pollutions and emerging contaminates based on electrochemical technologies. She has published over 60 papers in international, peer-reviewed journals with more than 10000 citations (ORCID iD: 0000-0002-9847-4655).

Prof. Wang joined the GEO program firstly in 2017 for GEO-6, as a LA for GEO-6 Asia Pacific assessment. Then she took the CLA for GEO-6 Youth Asia Pacific from 2018-2021, including preparing the report scoping documents, organizing the authors meetings, writing and reviewing the report and preparation of the launching activities in Singapore, Beijing and Shanghai. She also takes charge of the lecture of "GEO" in Tongji.