

Reference: UNE-2022-02530

28 November 2022

Dear Major Groups and Stakeholders,

The Global Environment Outlook (GEO) is the flagship report of the United Nations Environment Programme (UNEP) which provides an integrated assessment of the state of the global environment. It presents the environmental trends for air, climate, water, land and biodiversity, drawing on all the major global assessments from international science panels and United Nations bodies. The assessment also looks at the interactions and feedback loops between social, economic and environmental drivers to assess the effectiveness of different policy responses towards achieving more environmentally sustainable pathways.

As requested by Member States in [Resolution EA.5/3](#), UNEP is initiating the preparation of the seventh edition of the Global Environment Outlook (GEO-7) assessment and its accompanying Summary for Policymakers, to be launched at UNEA-7. The [scope and annotated outline of GEO-7](#) were adopted by Member States, stakeholders and experts at the Ad Hoc Open-Ended meeting in Nairobi in October 2022. GEO-7 will continue to assess the state and trends of the global environment as well as provide an outlook that will assess the possible environmental and socio-economic implications of the transformational changes needed. Additionally, GEO-7 will propose solutions pathways that could transform the interdependent global energy, food and materials/waste systems and their supporting economic and financing models. These transformations are necessary to solve the triple planetary crisis of climate change, biodiversity loss and pollution.

GEO-7 will require a broad range of expertise, ranging from natural sciences to policy, economics, and social sciences, as well as expertise in outlooks and scenarios, for this ambitious endeavor. Annex I provides a detailed list of these areas of expertise, based on the adopted annotated outline for GEO-7. Major Groups are invited to provide:

- Nominations of GEO-7 experts to conduct the assessment, including: authors, review-editors and fellows through the link [Experts nomination portal](#)
- Expressions of interest from collaborating centers to provide support to the GEO-7 through the link [Collaboration centers nomination portal](#)

Experts and collaborating centers should be available to participate in the GEO-7 process over the entire period of its preparation and finalization, likely until the end of 2025. The terms of reference for each role are included in Annexes II, III and IV respectively. The proposed GEO-7 calendar and timeline can be consulted [here](#). The first author's meeting is scheduled for 13-17 March, 2023 in Bangkok, Thailand. Nominated experts should be available to attend this important inaugural meeting. Nominations should be submitted no later than 15 January 2023, through the links above. My colleague, Mr. Pierre Boileau ([pierre.boileau@un.org](mailto:pierre.boileau@un.org)), Head, Global Assessments Unit, Science Division, will serve as the focal point and stands ready to provide further information as needed.

Yours sincerely,



Inger Andersen  
Executive Director



Robert Watson  
Co-chair of GEO-7



Nyovani Madise  
Co-chair of GEO-7

To: Major Groups and Stakeholders

## Annex I: Areas of expertise required for GEO-7

State of the Environment and Outlooks	Policy, technology and behavior change
Environmental themes: <ul style="list-style-type: none"> <li>- Air (atmosphere)</li> <li>- Biodiversity</li> <li>- Land and soil</li> <li>- Oceans and coasts</li> <li>- Freshwater</li> </ul>	Solutions pathways: <ul style="list-style-type: none"> <li>- Policy and political economy analysis</li> <li>- Policy development</li> <li>- Policy effectiveness</li> <li>- State and evolution of technological change</li> <li>- State and evolution of behavioral change</li> </ul>
Triple planetary crisis: <ul style="list-style-type: none"> <li>- Climate change</li> <li>- Biodiversity and nature loss</li> <li>- Pollution and waste</li> </ul> Additional issues to be assessed: <ul style="list-style-type: none"> <li>- Land degradation</li> </ul>	Transformational solutions pathways for: <ul style="list-style-type: none"> <li>- Economic and financial systems</li> <li>- Energy systems</li> <li>- Food systems</li> <li>- Materials/waste/circularity systems</li> <li>- Environmental change adaptation (including Climate Change) as it applies to these systems</li> </ul>
Outlooks and scenarios: <ul style="list-style-type: none"> <li>- Modelling transformational pathways in energy, food and circularity</li> <li>- Environmental and socioeconomic impacts of business-as-usual scenarios</li> <li>- Environmental and socioeconomic impacts of with commitments scenarios</li> <li>- Environmental and socioeconomic impacts of target-seeking scenarios</li> <li>- Regional and sub-regional outlooks</li> <li>- Scenarios based on literature reviews</li> </ul>	Analysis of solutions pathways: <ul style="list-style-type: none"> <li>- Economic impacts of solutions pathways</li> <li>- Social impacts of solutions pathways</li> <li>- Impacts on indigenous peoples of solutions pathways</li> <li>- Cost-benefit analysis</li> </ul> Sustainable development goals: <ul style="list-style-type: none"> <li>- Equity impacts of solutions pathways</li> <li>- Gender impacts of solutions pathways</li> <li>- Impacts on poverty and hunger</li> <li>- Impacts on human well-being<sup>1</sup></li> </ul>
Data and Knowledge sources: <ul style="list-style-type: none"> <li>- Digital data management and display</li> <li>- Mapping and geographical information systems</li> <li>- Citizen science</li> <li>- Indigenous, traditional, and local knowledge</li> </ul>	

<sup>1</sup> As defined in [GEO-6 Glossary](#)

## **Annex II: Terms of Reference for GEO-7 authors and review editors**

Author teams will be supported throughout the process by the GEO Secretariat and UNEP thematic experts. The GEO-7 will have three categories of authors depending on the level of responsibility: coordinating lead authors (CLA), lead authors (LA) and contributing authors (CA). All authors will be acknowledged in the report at the beginning of each chapter they are responsible for. Coordinating lead authors, lead authors, fellows and review editors will be selected by UNEP's Executive Director, with advice from the Intergovernmental and Multistakeholder Advisory Group (IMAG) and the co-chairs of the assessment, from the list of nominations. The Multidisciplinary Expert Scientific Advisory Group (MESAG) will also provide scientific oversight and advice on the selection process. The co-chairs of the assessment and selected coordinating lead authors and lead authors may enlist other experts as contributing authors to assist with the assessment work. The terms of reference for CLAs, LAs and review editors are provided below:

### **Coordinating Lead Author**

Coordinating Lead Authors (CLAs) will manage writing teams for each chapter of GEO-7 and ensure the scientific credibility and technical accuracy of the section and/or chapter they are responsible for. The skills and resources required of coordinating lead authors are similar to those required of lead authors, but also include the additional organizational skills needed to coordinate a section, or sections, of a report. CLAs are expected to:

- Take the overall responsibility for coordinating their assigned chapters and possibly drafting relevant sections according to the drafting deadlines, working closely with the co-chairs of the assessment;
- Actively participate in the GEO-7 Authors Collaborating Platform and work closely with the Secretariat staff to provide insight into the development of the content;
- Contribute to authors' meetings to deliver first-order and subsequent-order drafts of each assigned chapter of the report;
- Draft the chapter Executive Summary in collaboration with the lead authors
- Ensure that chapters are completed to a high standard, collated, and delivered to the co-chairs and Secretariat in a timely manner and conform to the guidelines for scientific credibility;
- Ensure that all peer review comments are dealt with according to specific guidelines;
- Develop text that is scientifically, technically, and socio-economically sound, incorporating contributions from a wide variety of experts;
- Ensure that any crosscutting scientific or technical issues, which may involve contributions to several chapters of GEO-7, are addressed in a complete and coherent manner;
- Prepare, together with the co-chairs of the assessment, the first and subsequent drafts of the Summary for Policy Makers (SPM);
- Take responsibility for referring any scientific credibility issues, such as uncertainties and use of grey literature or other diverse knowledge systems, to the co-chairs, and then to the MESAG when such issues cannot be dealt with within the writing teams;

- Participate in outreach events related to the GEO-7, as it is being developed and launched.

The estimated time commitment for this role could be up to 25% of an expert's time over the duration of the GEO-7 production. Some periods will be busier than others.

### **Lead Authors**

Lead authors (LAs) will produce designated sections or parts of chapters that respond to the annotated outline of GEO-7 on the basis of the best scientific, technical and socioeconomic information available. LAs typically work in small groups under a Coordinating Lead Author and are responsible for ensuring that the various components of their sections are drafted on time, are of a uniformly high quality and conform to any standards of scientific credibility and style set for the document. LAs are expected to:

- Lead the drafting and revising of their designated sections of their assigned chapter of the GEO-7 report;
- Assist the CLAs in drafting the chapter Executive Summary;
- Actively participate in the GEO-7 Collaborating Authors Platform;
- Identify, collect, and synthesize relevant material drawn from available peer-reviewed literature, the World Environment Situation Room (WESR) and other credible data sources and knowledge systems (e.g. local and indigenous knowledge, citizen science) as appropriate;
- Include expert views which cannot be reconciled with a consensus view, but which are nonetheless scientifically or technically valid;
- Take into account the expert and government peer review comments when revising text and record how comments have been dealt with;
- Identify data and knowledge gaps on specific topics in consultation with the CLAs, co-chairs of the assessment;
- Ensure that the various components of their section are completed on time, are of uniformly high quality and conform to the guidelines for scientific credibility;
- Work closely with the CLAs to prepare text.

The estimated time commitment for this role could be up to 10-15% of an expert's time over the duration of the GEO-7 production. Some periods may be busier than others.

### **Review editors**

Review editors will assist the GEO Secretariat and advisory bodies in identifying reviewers for the expert review processes, ensure that all substantive expert and government peer review comments are afforded appropriate consideration, advise lead authors on how to handle contentious or controversial issues and ensure that genuine controversies identified in the peer review comments are adequately reflected in the text of the report.

In general, there will be two review editors per chapter, including its Executive Summary. To carry out the tasks allocated to them, review editors will need to have a broad understanding of the wider scientific, technical and socioeconomic issues being addressed. The workload for review editors will be particularly heavy during the final

stages of report preparation, including attending meetings at which writing teams consider the results of the various peer reviews. Review editors are not actively engaged in drafting reports and cannot serve as reviewers of the text that they have been involved in assessing. Although responsibility for the final text of a report remains with the relevant CLAs and LAs, review editors will need to ensure that, where significant differences of opinion on scientific issues remain, such differences are described in an annex to the report. Review editors must submit written reports to the MESAG and, where appropriate, will be requested to attend meetings convened by the MESAG to communicate their findings from the review process. The names of all review editors will be acknowledged in the report. Review editors are expected to:

- Provide oversight of the peer review processes of their designated sections;
- Ensure all substantive peer review comments are afforded appropriate consideration;
- Prepare written summaries of the most significant issues raised by peer reviewers;
- On a case-by-case basis, as requested by the Secretariat or co-chairs of the assessment, carefully monitor and review the use of data sources and consideration of grey literature as well as diverse knowledge systems (e.g. local and indigenous knowledge, citizen science);
- Be available to provide responses to the MESAG when requested, on the review process; and prepare final reports for the MESAG and GEO Secretariat.

The estimated time commitment for this role could be up to 5% of an expert's time over the duration of the GEO-7 production. Some periods may be busier than others.

### Annex III: Terms of Reference and selection criteria for GEO-7 Fellows

Since GEO-4, the Fellows Programme has successfully engaged young professionals from all over the world in the production of Integrated Environmental Assessments. The Fellows play an important role in developing a successful and effective global assessment and contribute to the scientific integrity of the process.

For the first time, for the GEO-7, UNEP is also developing an 11-week Global Science to Policy training course to support Fellows in increasing their knowledge and understanding of the GEO methodology and how to foster science for policy action. This structured learning opportunity will help develop the skills of Fellows on the role of producing science that informs environmental decision making in a multilateral context, with a priority focus on the GEO process. The proposed terms of reference for GEO-7 fellows are:

- Conduct research for specific sections of the global assessment, assisting authors where needed. In this context, Fellows will interact closely with Coordinating Lead Authors and Lead Authors of GEO-7;
- When required, write components of specific sections of the document.
- Play a key role in advising authors on data and information sources that may have been missed by the authors, to improve the use of data and indicators and help ensure data integrity;
- Assist, through the technical and intergovernmental review process of the GEO-7 report, as well as on the verification of data and information sources used by the authors. Regular interaction may be needed with the Multidisciplinary Expert Scientific Advisory Group (MESAG);
- Prepare and verify the citations and reference lists contained in GEO-7 report and support review editors in their assessment of how peer review comments have been dealt with;
- Identify key events or opportunities to be considered by the Secretariat to promote the GEO-7 report, including by providing outreach material.

#### Selection Criteria

- Being enrolled or having completed an advanced University Degree (Master's or equivalent) in a relevant field from the areas included in Annex I
- Having at least two years of documented professional experience in at least one of the areas included in Annex I. Assessment-work at the regional and/or global level is desirable;
- Ability to assess and synthesize technical material rapidly;
- Good writing skills in English;
- Excellent interpersonal and organizational skills;
- Ability to use ICT platforms and tools effectively;
- 24-32 years old at the beginning of the GEO-7 process.

#### Annex IV: Terms of Reference and Selection Criteria for Expressions of Interest from Potential Collaborating Centers

Member States requested in [Resolution 5/3](#) that UNEP's Executive Director facilitate partnerships with collaborating centers to support the production of future GEOs. It is expected that GEO collaborating centers will support the core GEO-7 process by focusing on science and capacity building at various levels. These strategic collaborations are expected to strengthen GEO's geographic, gender and expertise balance, while ensuring a cost-effective scientific assessment process, effective governance and administration, while supporting the credibility and relevance of GEO findings by enhancing its reach and impact.

UNEP will select specific institutions based on the criteria identified in this Annex. UNEP and selected institutions are expected to define the specific areas of collaboration through a Memorandum of Understanding (MoU). The establishment of an MoU does not require financial support from UNEP nor does it commit the selected institution to any financial contribution to GEO. Separate agreements, under the MOU, will allow UNEP and the collaborating centers to fund specific projects based on the identified needs and on available resources during the production of GEO-7. Collaborating centers are encouraged to seek financial support from their host countries or from their own institutions to allow these projects to move forward

##### Selection criteria:

- The institution's objectives and mandate should be aligned with that of UNEP;
- Interested institutions should be available to participate in the GEO-7 process over the entire period of its preparation and finalization, likely until the end of 2025;
- Interested institutions must have extensive demonstrated expertise in at least one of the 4 areas stated below:
  - Developing scenarios and modelling of solutions pathways for the three interdependent systems, energy, food and materials/waste;
  - Providing scientific information and expertise for respective region/sub region and/or thematic areas relevant to the analysis conducted in GEO-7
  - Providing support for capacity-building, knowledge generation and policymaking at global, regional and national levels; Additional information on these supporting services can be consulted [here](#)
  - Supporting UNEP's outreach and communication efforts for the dissemination of the GEO findings.
- Personnel in the interested institution must:
  - Have demonstrated knowledge of, and experience in at least one of the areas of expertise require for GEO-7, stated in Annex II;
  - Have specialized environmental expertise as well as strong links to the policy areas assessed in GEO-7;
  - As appropriate, have relevant expertise in other knowledge systems (e.g. local and indigenous knowledge, citizen science)

- Institutions should be a known and reputable institution and, if necessary, be able to mobilize their own resources to support UNEP in the production of GEO-7, and:
  - Should be knowledgeable and active at a global, regional or national level;
  - Considered to be at the cutting edge of the environmental science-policy interface;
  - Able to communicate science and scientific finding to multiple stakeholders, including youth.