

## Scoping of the seventh edition of the Global Environment Outlook: Action for a Healthy Planet<sup>1</sup>

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<sup>1</sup> Working title

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# 1 Scope, rationale, timeline, geographic coverage and methodological approach

## 1.1 Scope

The sixth Global Environment Outlook (GEO-6) and other major global assessments<sup>2</sup> have established several key policy findings which will be further explored in GEO-7, namely that:

- Current policies cannot keep pace with the rate of environmental degradation we face today.
- With current policies none of the environmental SDGs will be achieved and none of the main internationally agreed environmental goals (e.g. Paris Agreement, Aichi Targets, etc.) will be achieved.
- Because of this we face a triple planetary crisis of climate change, biodiversity loss and pollution.
- Policies which address the systems that are the root cause of environmental degradation should contribute to the transformational change needed to achieve an environmentally sustainable world by 2050.
- The transformation of three interdependent systems, energy, food and waste<sup>3</sup>, as well as their supporting economic and financial systems, are critical in this timeframe.
- By transforming these systems, we should contribute significantly to creating a world with a stable climate, that is nature rich (biodiverse) and which produces near-zero-waste (circular) for current and future generations.

GEO-7 proposes to build on these findings, and those of other major assessments to explore the solutions pathways that are available for transformation of the interdependent global energy, food and waste systems and current economic and financing models. In addition, to maintaining a link with past GEOs, GEO-7 will:

- Assess the current drivers of environmental change, focused primarily on population and demographics, economic development, technological change, urbanization and climate change, as well as the pressures on the environment created by these drivers.
- Update the assessment of the current state and trends of the environment, focusing on the traditional five GEO environmental themes (Air, Biodiversity, Oceans, Land and Freshwater), grouped within the climate, biodiversity loss and pollution priority environmental issues and highlighting the environmental impact of the COVID-19 global pandemic and current disasters and conflicts.
- Assess the solutions pathways and policy approaches that can be used to transform the energy, food, waste, as well as their supporting economic and financial systems that are at the root cause of the triple planetary crisis, while considering their interdependencies and the need to adapt to climate change within all these systems.

<sup>2</sup> Includes IPCC, IPBES, MPWN, GRO, GLO, GBO, etc.

<sup>3</sup> References to 'waste' in this context refer to the current extractive economic model which generates significant amounts of waste at all stages of the current economic model. This is in contrast to proposed circular economy models, which are designed to significantly reduce resource extraction and waste.

- Provide an environmental outlook over the medium to longer term, with a business-as-usual scenario and target-seeking scenarios if the interdependent systems (energy, food, waste, economic and financial) are successfully transformed in the timeframe from 2025 to 2050, highlighting, and quantifying to the extent possible, the socio-economic challenges that might be faced, but also the socio-economic benefits that are likely to result from these transformations.

## 1.2 Rationale

All major UN-led assessments<sup>4</sup> have highlighted that degradation of our environment continues at an accelerating rate. Several non-UN assessments<sup>5</sup> have also highlighted the link between the interdependent systems (energy, food, waste, economic and financial) and their environmental impact. The current goals-based-diplomacy approach in major multi-lateral environmental agreement processes typically identifies the targets that must be reached to attain environmental sustainability in the appropriate timeframe but does not provide guidance on the best policy, technology or behavioural approaches to achieve these targets in given socio-economic contexts. This sometimes is described as identifying the ‘what’ without providing guidance on the ‘how’.

GEO-6 and other major assessments have also highlighted that we failed to achieve the Aichi biodiversity goals and are not on track to achieve any of the other environmental and development goals (SDGs, Paris Agreement, etc.) that have been set. These assessments have highlighted the very likely prospect of a ‘3 degrees’ world, with more pollution and less biodiversity if we do not achieve major transformations quickly. UNEP Member States recognize that we are facing a triple planetary crisis of climate change, biodiversity loss and pollution and that urgent action is needed to address these

GEO-7 will focus on assessing solutions pathways for policymakers in different socio-economic-and policy contexts, with sufficient guidance on the practical steps for implementation, timing, potential challenges, ways to manage unintended consequences and potential socio-economic benefits of these transformations. The rationale for this focus is that Member States have stressed in the GEO-6 Summary for Policymakers and other assessments that urgent and sustained action is needed to change the trends on these critical environmental issues, but many Member States may be blocked by certain barriers (e.g. political economy context, lack of financing for environmentally sustainable actions, environmentally harmful economic policies, education/habit barriers or multi-level governance challenges) and may need more practical guidance before moving forward.

GEO-7 will also continue to assess the state and trends on the global environment, the implications for human well-being and the achievement of the SDGs, as well as providing an outlook that provides useful guidance on the possible environmental and socio-economic implications of the transformational changes needed. This will ensure continuity with previous GEOs and also allow GEO-7 to provide some updates on the environmental impact of the global pandemic and recent disasters and conflicts. For the outlook, GEO-7 may be able to provide modelling and scenarios analysis of the socio-economic impacts (both positive and negative) of different solutions pathways. This additional analysis will provide additional rationale for Member States to implement the proposed solutions pathways.

<sup>4</sup> For example recent IPCC, IPBES, IRP reports along with the Making Peace with Nature synthesis report.

<sup>5</sup> World Resources Institute, Creating a Sustainable Food Future, <https://files.wri.org/d8/s3fs-public/wrr-food-full-report.pdf>, and Worldwide Fund for Nature, Living Planet Report 2020, <https://f.hubspotusercontent20.net/hubfs/4783129/LPR/PDFs/ENGLISH-FULL.pdf>

### 1.3 Timeline and geographic coverage

The timeline for production of GEO-7 is defined by the Resolution EA.5/3, which specifies that the main assessment report and its accompanying Summary for Policymakers (SPM) should not be provided for endorsement by UNEA before 2025 but that it should be produced in a 4-year timeframe, thus no later than 2026. Additional detail on the proposed timeline for the different meetings and activities are outlined in Section 3.

The main geographic scope of the assessment is also defined by the Resolution EA.5/3. GEO-7 must be a global assessment with regional specificities. These regional specificities can be integrated in the state of the environment section of the GEO, the policy section, including through the production of case studies, and in the outlooks section.

### 1.4 Methodological approach

The GEO has always been conducted using the Drivers, Pressures, State, Impact, Response (DPSIR) methodology, which is well accepted and appreciated by Member States. For this reason, it is important to continue with this methodology, but with more emphasis on the Response component where the solutions-pathways can be presented. Structurally, the assessment will likely include the following sections, which are further elaborated in the proposed annotated outline:

- Introduction, overview, methodology and context setting
- Drivers and pressures of environmental change, including updates for the five drivers previously covered in GEO-6
- Three chapters on the current state of the three planetary crises (climate change, biodiversity loss, pollution, with analysis of impacts and effects on air, biodiversity, oceans and coasts, land and soil, freshwater, including an analysis of how the global pandemic and recent disasters and conflict have impacted the environment.
- These environmental themes will be assessed so that the state of the environment can be looked at in a holistic and integrated way.
- This analysis should be followed by a methodology chapter, explaining the approach to analyzing and presenting the solutions pathways and how this will be innovative and useful for Member States.
- There will likely be individual chapters on the energy system, food system, waste system (circularity), and their supporting economic/financial systems, containing the solutions pathways (policies, technologies and behavioural changes) for each of these systems individually and collectively, recognizing their interdependencies, and in the context of the need for significant climate change adaptation.
- Chapter(s) exploring the energy/transport, food/energy/water, pollution/energy/food/waste nexus may be needed to ensure a fully integrated analysis.
- Integrating analysis and insights on how climate adaptation efforts must be integrated into these solutions pathways should be a priority.
- Socio-economic-and governance analysis of these pathways should also be a priority to ensure they are relevant and practical for Member States.
- The outlook section should include a business-as-usual scenario and pathways and target-seeking scenarios.

- The scenarios should be accompanied by socio-economic modelling, including implications for global finance, to ensure that the environmental analysis is complemented by economic and social challenges and benefits that might result from each pathways approach.

The number of chapters and their content cannot be fully defined at this stage, since these may change as the analytical approach and assessment process is guided by the co-chairs, vice-chairs and experts involved in the process. The innovative nature of this assessment and its solutions-based approach needs to allow for some adjustment and flexibility during the process so that the advice and guidance received from the Intergovernmental and Multi-stakeholder Advisory Group (IMAG) and the Multidisciplinary Expert Scientific Advisory Group (MESAG) can be integrated as the assessment process evolves.

The assessment report will include a Summary for Policymakers, which will be predominantly focused on the most policy-relevant findings from the executive summaries of each chapter, and suggest roles for different stakeholders. GEO-7 will also include an assessment of key knowledge and data gaps.

The assessment will draw on the findings of key authoritative assessments, peer reviewed literature, indigenous and local knowledge, and grey literature in line with the procedures documented for the preparation of GEO deliverables.

The work will be carried out by a highly interdisciplinary team of experts, including practitioners with expertise in interdependencies across energy, food, waste, and their supporting economic and financial systems as well as interlinkages between climate, biodiversity loss and pollution. The analysis will likely include sectors most directly dependent on the environment, and sectors that impact the environment, (e.g., forestry, agriculture, fisheries, water, tourism, energy and mining) along with other major business sectors. The expert team will draw from a diversity of backgrounds (e.g., academic, business and industry, government, civil society) and a diversity of disciplines (e.g., natural and social sciences, humanities, economics, finance, policies and regulations, laws, indigenous and local knowledge, management, metrics and indicators, and monitoring).

The UNEP experts on knowledge and data will support experts in their work on data and information and in their identification of knowledge gaps and, following the approval of the assessment, promote knowledge generation to address the identified gaps.

Addressing and working with indigenous and local knowledge in the assessment will be in line with the approach to recognizing and working with indigenous and local knowledge in GEO and other relevant guidance (e.g. from IPBES).

The effort on solutions pathways, tools and methodologies will assist in identifying and assessing relevant solutions-focused tools and perform work to increase the policy relevance of the assessment and its use in decision-making, once approved.

The summary for policymakers will be available in all official languages of the United Nations and will be printed on demand, resources permitting.

The length of the summary for policymakers should remain within a word limit of approximately 10,000 words (indicative). Indicative word limits are also provided for the chapters in the proposed annotated outline below.

154 Communication and outreach will be undertaken from the outset and during the development of the  
155 assessment in order to build engagement with the wider policy community and other end users of the  
156 assessment.

157 Prior to the launch of the drafting process, UNEP will build digital collaboration tools that will improve  
158 the efficiency of the assessment process. These tools will be focused on improving online collaboration  
159 in the drafting process, allowing online creation of graphics and maps using 'live' data sources,  
160 streamlining the peer review and review editor processes by moving this online, improving the creation  
161 of glossaries, terminology and definitions by creating an online platform for glossary experts to work  
162 from and finally the creation of an online, interactive platform for presentation of the final GEO report.

163 Technical support will be provided by collaborating centres and technical support units, which will work  
164 in close collaboration with the groups of experts producing IPBES, IPCC and other major assessments  
165 and with the GEO teams.

## 2 Proposed Annotated Outline<sup>6</sup>

### Overview and context

**Introduction:** including a review of GEO-6, IPCC, IPBES, IRP and MPN and the findings from other reports (including explaining the value-added of GEO-7), explanation of the analytical approach and the DPSIR, a discussion of the rationale for solutions-focused approach, a description of GEO-7 conceptual and methodological approach for the pathways analysis and finally the chapter structure (5000 words)

### Drivers and pressures of environmental change

**Historical, current and projected drivers and pressures of environmental change:** an assessment of human-environment interactions, including: population/demographics dynamics, economic and financial system, the energy system, the food system, technological development, urbanization, and climate change (i.e. the need for mitigation and adaptation). Discussion of other pressures on the environment, including: land-use change and resource use (affects biodiversity, land and water), greenhouse gas emissions (affects climate change, biodiversity, land degradation and pollution), invasive alien species (affects biodiversity), pollution (affects biodiversity, land degradation and climate) (10,000 words)

### State and Trends of the Environment

**State of the global environment and progress towards internationally agreed environmental goals and targets:** the analysis will be organized according to the triple planetary crisis while considering the impacts or effects on the five traditional environmental themes in previous GEOs. Section 1 will focus on climate change and its impacts on air, freshwater, oceans and coasts, land and soil and biodiversity. Section 2 will focus on biodiversity loss and its effects on oceans and coasts, freshwater and land. Section 3 will focus on chemicals, pollution and waste and their impacts on air, freshwater, oceans and coasts, land and soil and biodiversity. (3 chapters here, 10,000 words each)

**Interlinkages across environmental changes, scales and geographic regions:** providing the regional specificities and interlinkages across these environmental issues, including: environmental changes are intertwined, priority issues for the pan-European region, Latin America and the Caribbean, Asia and the Pacific, North America, West Asia and Africa. (5 chapters here, by region, 5000 words each)

**Implications of Environmental Change on Human Well-Being and the SDGs,** including: poverty, food production and hunger possibly leading to migration, water quantity and quality, human health and well-being, rehabilitating land and soil, affordable and clean energy, decent work and economic growth, gender equality and socioeconomic equity, peace and security. (10,000 words)

### Policy responses and solutions pathways

**What are the elements and levers of transformative change?** This sub-section will introduce the issues involved in the transformations needed to implement sustainable sectoral and cross-sectoral planning and management approaches for interdependent energy/food/waste/economic/financing systems, especially as they affect the global environment and the SDGs. Some actions are transformative, while

<sup>6</sup> All work lengths are indicative. 1 page equals approximately 500 words. Anticipated page length from the proposed outline below is 400 to 500 pages.



other actions are not in themselves transformative but lead to transformation. It will highlight the opportunities and barriers for transformative change, and address issues such as lock-ins and the various levers identified in different reports, including the GSDR 2019, IPBES 2019, GEO-6, MPN, etc.

- economic and financial: e.g., elimination of environmentally harmful subsidies embedded in current economic models, use of inclusive wealth in decision-making (built, human and natural capital), internalization of externalities, embracing a circular economy, international trade, and stimulating a green economy, e.g., payment for ecosystem services
- technical and technological: e.g., technologies that facilitate the transition to a low-carbon economy, sustainable agriculture, and a circular economy
- institutional and political: e.g., polycentric governance and inclusiveness
- social, cultural and behavioral: e.g., poverty, demography, employment, sustainable consumption, gender, equity, justice
- Diverse knowledge systems: e.g., use of indigenous and local knowledge (10,000 words)

**Methodological approach to solutions-focused pathways:** this subsection will assess policy gaps in meeting internationally agreed environmental goals, potentially successful policy approaches, with examples of how scarce resources can be mobilized, policy coherence, identifying synergies and trade-offs, policy development in different political/development contexts, i.e., adapting policies, technologies and behavior changes to regional / national context, and applicability at sub-national scales for different sectors. (5000 words)

**Pathways for transformation of economic and financial systems :** This subsection will present solutions pathways that consider economic and financial risks associated with environmental change and policies to address them, addressing vested interests, incorporating natural capital in decision-making, embracing a circular economy which promotes environmentally sustainable consumption and production patterns, internalizing externalities in the prices of goods and services, removing environmentally harmful subsidies, Shifting investments towards environmentally sustainable structures and practices. (10,000 words)

**Energy system transformation pathways:** this subsection will present solutions pathways for transitioning to a low carbon economy in the production and use of energy, the required technological transitions, including: low-carbon production, e.g., renewable energy, electrification and clean fuels, end-use efficiency in transportation, industry and buildings. The subsection will also explore the socio-economic transformations that are needed, including: shifting fossil fuel, mining, agricultural and transportation subsidies to less environmentally harmful practices, fostering the jobs transition, shifting finance to low-carbon economy activities. (10,000 words)

**Food system transformation pathways:** this subsection will explore solutions pathways for food production transformations (crops, livestock, and fisheries), including: regenerative agriculture, animal husbandry transformations, including a transition to plant-based proteins and cultivated meat, pastoralism / small holders, environmentally sustainable fisheries and aquaculture. The subsection will also explore the expected socio-economic transformations, including: shifting agricultural and fisheries subsidies, fostering the jobs transition, shifting finance to environmentally sustainable agriculture and fisheries practices, and reducing food loss and waste through policies, technologies and behavioral changes. The subsection will also assess the potential for transformational change through dietary

changes, including: incentivizing behavior change, promoting health and nutrition co-benefits, and food security co-benefits. (10,000 words)

**Circularity transformation pathways:** this subsection will assess links between resource extraction and waste, shifting resource extraction to resource recovery, systems for tracking and recovering resources, shifting economic and financing incentives towards resource recovery. The subsection will also assess the socio-economic co-benefits from circular economy practices, including: geopolitical stability, ending the ‘resource curse’ and conflict minerals. (10,000 words)

**Environmental systems:** This subsection will address the need for adaptation to climate change conservation and restoration of biodiversity, restoration of degraded lands and freshwater systems. The subsection will also explore the main approaches to mitigate the impact of environmental systems, including: mitigation of climate change through phasing out fossil fuels, electrification, dietary changes, carbon dioxide capture and storage, negative emissions technologies, direct air capture, land-based carbon sequestration (soils, reforestation and afforestation), and geoengineering. In addition, the subsection will look at mitigation strategies for pollution and waste and their impacts on freshwater ecosystems, oceans and coasts, air, land and soils, site remediation, responsible management (of chemicals, etc.), micro-application technologies, use of renewable materials (e.g., to replace plastics). (10,000 words)

## Outlooks

**Approaches, methodology and philosophy:** this subsection will outline the methodological approaches supporting the GEO-7 outlooks. (5000 words)

**Staying on the path we are on – global implications:** this subsection will present the business-as-usual scenario, including a focus on the impacts of the pandemic and disasters and conflicts, as well as the socio-economic implications. (10,000 words)

**Multiple pathways that achieve environmental sustainability – global implications:** this subsection will assess scenarios including the target-seeking scenarios and their socio-economic implications. (10,000 words)

**Disaggregated solutions pathway scenarios based on economic situation, fossil fuel dependence, resource extraction, vulnerability to climate change:** this subsection will present the solutions pathways for countries with different economic, resource and environmental situations. (10,000 words)

**Regional similarities and differences:** this subsection will assess the likely regional implications of the different solutions pathways. (5 subsections here, 5000 words each)

### 3 Work plan and budget

GEO-7 will follow a work plan very similar to GEO-6, with an equivalent number of meetings and activities. This proven approach will ensure production of GEO-7 within the 4 year time frame specified in the resolution EA.5/3 and within the anticipated budget. The anticipated funding gap at this early stage of the project is USD 7.5 million over the 3-year production timeline.

#### 3.1 Multiyear GEO Workplan

	Activities	2022				2023				2024				2025				2026				2027			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>GEO-7 PREPARATORY STAGE</b>	<b>PREPARATORY STAGE</b>																								
	GEO Resolution signed (March 2 <sup>nd</sup> )																								
	IMAG Selection																								
	Convening open-ended meetings, expert and advisory groups and holding meetings																								
	Procedures and Supporting services meeting (Sept 19 - 22)																								
	Scoping, IMAG Meeting (Oct 17-20)																								
	Resource Mobilization																								
	MESAG Selection (Nov)																								
	Authors Selection (Dec-Jan 2023)																								
	Call for Collaborating Centers (Dec- Jan 2023)																								
<b>DIGITIZATION OF GEO</b>	Creation of digital presentation platforms																								
	Build platform for Digitization of GEO (June 2022-Jan 2023)																								
	Creation of author collaboration, glossary, peer review and graphing and mapping tools																								
<b>GEO-7 PRODUCTION</b>	<b>PRODUCTION STAGE</b>																								
	Coordinating the drafting process of GEO report and SPM																								
	1 <sup>st</sup> Authors writers sprint (Feb 2023)																								
	IMAG, MESAG Meeting (Feb 2023)																								
	Prepare first order draft (Feb-June 2023)																								
	2 <sup>nd</sup> Authors writers sprint (June 2023)																								
	Expert review (June- Oct 2023)																								

	Activities	2022				2023				2024				2025				2026				2027			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	3 <sup>rd</sup> Authors writers sprint (Nov 2023)																								
	IMAG, MESAG meeting (Nov 2023)																								
	Prepare 2 <sup>nd</sup> order draft (Dec 2023-Mar 2024)																								
	Document quality control and production																								
	UNEA-6 GEO progress report (Feb 2024)																								
	4 <sup>th</sup> Authors writers sprint (Mar 2024)																								
	Intergovernmental and expert review (Mar-June 2024)																								
	Review editors meeting (June 2024)																								
	MESAG meeting (June 2024)																								
	Addressing review comments (June 2024)																								
	Prepare draft SPM (Jul-Sept 2024)																								
	<b>SPM AND FINALIZATION</b>																								
	Production of first order draft FOD of SPM																								
	Intergov'l and peer review of FOD of SPM																								
	Addressing comments and production of SOD of SPM																								
	Finalize draft SPM meeting (IMAG, MESAG, Authors) (Oct 2024)																								
	Intergovernmental review of SPM (Oct-Dec 2024)																								
	Embargoed version of GEO-7 (Oct-Dec 2024)																								
	Review, negotiation of SPM (Jan 2025)																								
	GEO-7 launch at UNEA 7 (Feb 2025)																								
	Outreach and awareness raising																								
	Terminal Evaluation																								
<b>SUPPORTING SERVICES</b>	Delivery of technical assistance for the development of national SoE reports																								
	Creation and delivery of science-policy seminars and materials																								
	Creation of educational materials and an enhanced fellowship programme																								

	Activities	2022				2023				2024				2025				2026				2027			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
	Creation of workshops for scientific experts to increase awareness and production of science-based reports																								
	Convening the Adhoc Global Assessments Dialogue																								

7

8 KEY:

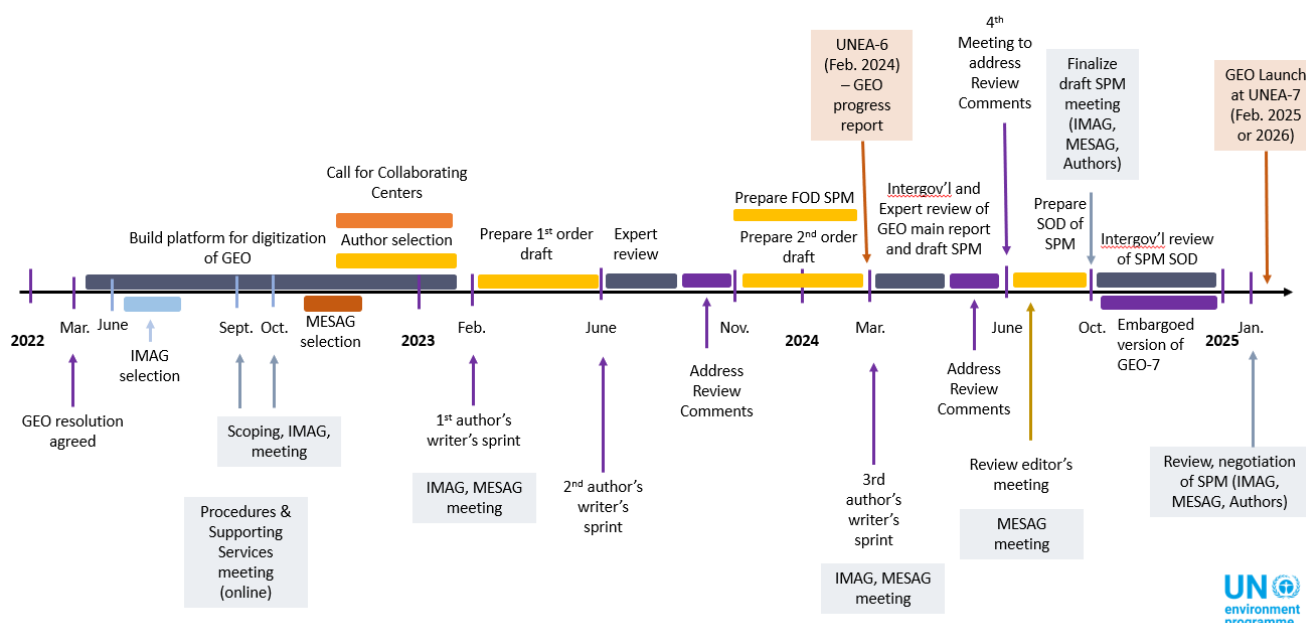
Quarter 1: January -March

Quarter 2: April - June

Quarter 3: July - September

Quarter 4: October - December

## What can we expect over the next three years?

GEO<sub>7</sub>

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### 3.2 Summary budget

To be provided