



Science Division

Briefing note for the Committee of Permanent Representatives: the sixth Global Environment Outlook, GEO-6

Executive Summary

What is the GEO-6? Sections 1-2 of this briefing note summarize why the GEO-6 is UN Environment's flagship global scientific assessment, and provide an update on the process that is well on track for a successful completion at the fourth UN Environment Assembly.

How much did the GEO-6 cost, and was it within budget? Information on the cost-effectiveness and the funding structure of the GEO-6 process is provided in sections 3-4-5. This analysis confirms that the GEO-6 was less costly than GEO-5, and that it stayed almost within its original budget, despite a time extension and several additional items delivered along the way.

Why we felt that the GEO-6 was never fully funded? Analysis of the governance and budget boundaries for the GEO-6 is provided in section 6. The GEO-6 process evolved along the way to respect the guidance provided by the three advisory bodies and to ensure the scientific credibility and policy relevance of the final product. Adhering to this guidance also had budget implications, but did not drive the process over its original budget.

Are we learning from the past? The GEO-6 process has taken on board the learnings from GEO-5 and the 2016 regional assessments. This analysis is provided in section 7, which summarizes how the finding of the GEO-5 evaluations and the GEO-6 mid-term evaluation were taken-up in the design and implementation of the GEO-6 global assessment.

What could be the way forward beyond GEO-6? Section 8 provides an overview of next steps being undertaken towards the design of future global assessment processes, taking stock of lessons learned from GEO-6 and the evolving global technical and political context.

The Annexes: annexes to this document contain the GEO-6 process in numbers; the letter from the Scientific Advisory Panel on the scientific credibility of the GEO-6 process; relevant UN Environment Assembly decisions on GEO-6; an abstract from a relevant scientific review of major global assessments.

1. Background

What is the GEO process? GEO-6 is UN Environment's flagship science-based environmental assessment process and report. It aims to strengthen the science-policy interface, informing Member States and decision-makers on the status, trends and outlook for the global environment. The report outlines policy options, best practice examples, and assesses progress against the environmental dimension of the Agenda 2030 and other internationally agreed environmental goals. The GEO-6 provides the scientific basis for a wide range of key messages for Member States' policy making and it will underpin UN Environment's outreach efforts on all environmental issues, and their inter-linkages.

Why do we do it? the GEO fulfils the core of UN Environment's original mandate to keep the global environmental situation under review (UN General Assembly Resolution 2997, 1972 – establishing UNEP). The GEO-6 was requested by Member States from the Executive Director through UNEA Resolution 1/4, 2014.

Several external peer-reviewed papers underline how the process of undertaking integrated environment assessments (such as GEO) is equally or more important than the actual report, in addressing new long-term, difficult policy issues. During the process, the GEO allows for:

1. **Representation** by engaging diverse stakeholders (including internationally recognized experts) and acknowledging divergent viewpoints;
2. **Empowerment** by engaging underrepresented societal groups and co-developing integrated policy scenarios that reflect their specific knowledge systems and worldviews;
3. **Capacity Building** by developing methods and skills for integration and synthesis of environmental, social and economic issues, as well as through the provision of knowledge about the policy solutions space, and;
4. **Space for Deliberation** by facilitating direct interaction between different stakeholders, including government, civil society and experts.

The GEO provides the only overarching and integrated analysis of all aspects of the environmental dimension of Agenda 2030, taking stock of all the latest ‘thematic’ environmental assessments on land, biodiversity, climate, pollution, etc. The GEO feeds directly into the UN Global Sustainable Development Report that informs the UN General Assembly and the UN High Level Political Forum deliberations.

2. A quick status update on GEO-6

The GEO-6 is now well on track for delivery at the fourth UN Environment Assembly:

- Following the launch of the six regional GEO-6 reports at the second UN Environment Assembly, the Global GEO-6 was launched, engaging the work of experts over a 2-year process, now nearing completion. Hundreds of authors and stakeholders were involved (see **Annexes**).
- The negotiating draft of the Summary for Policymakers was made available on November 16th, 2018 (English Language), and Language versions will be available the week of December 17th, 2018.
- The Global GEO process was successfully funded thanks to increased UN Environment core resources in 2018, and to ad-hoc financial and in-kind support from: Norway, the European Union, Italy, Switzerland, Denmark, China, Mexico, Singapore, Egypt, Thailand, The Netherlands, Germany and the European Space Research Institute (ESRIN).
- The Scientific Advisory Panel has provided a positive opinion on the scientific credibility of the Global Environment Outlook process. They were particularly impressed with the quality of the peer review process, the geographic and gender balance achieved and the extent to which the Secretariat adopted the Panel’s recommendations (see letter from the Scientific Advisory Panel in Annex).
- UN Environment’s Chief Scientist has recently convened the co-chairs of major UN assessments (IPCC, IPBES, IRP, GSDR and GEO) to compare success stories as well as identify synergies and possible areas of collaboration across these assessments. This is the first time that such an effort has been launched.
- The intergovernmental and stakeholder negotiation meeting for the GEO-6 Summary for Policymakers is scheduled for January 14-21, 2019 in Nairobi, and preparations are ongoing.

3. Cost effectiveness of the GEO-6 process

Comparison with GEO-5 and IPBES – staff and annual budget

Available financial and staffing data summarized in the table below, clearly shows that the global GEO-6 process was highly cost-effective when compared with (a) the annual costs and staffing of its prior edition released in 2012, the

GEO-5 or (b) with other major assessments such as the Intergovernmental Platform on Biodiversity and Ecosystems services (IPBES):

Assessment	Average Annual Budget (staff and operations)	D staff	P 4-5 staff	P 2-3 staff	G staff	Technical Support Units (value)
IPBES	USD 6,749,533 (reported expenditure in 2017)	1	2	4	5	2,819,643
GEO-5	USD 2,139,893 (avg annual)		3	2	4	0
GEO-6	USD 2,047,699 (avg annual)		1	2	6	0

Did the GEO-6 stay within its original planned budget?

Yes, the actual costs of GEO-6 to UN Environment aligned well with the original planned budget. Notably, this was achieved despite three main cost-increase factors, including:

- the addition of 6 regional GEO assessments to the process;
- the 2-year extension of the process (with consequent increase in core staff costs) due to the re-alignment of the timeline with UN Environment Assembly meetings, and;
- several additional requirements and products added along the way, based on the guidance of GEO advisory bodies (representing Member States, stakeholders and the scientific community).

The following table provides a quick overview and cost comparison of GEO-6 with the GEO-5 budget; the original GEO-6 approved budget and a comparison with the annual budget of another major global assessment i.e. the IPBES:

Comparison table	Amount	Notes
GEO-5 Total Cost - final	10,699,469	4 years - average annual cost 2,674,867 USD
GEO-6 Original Approved budget	10,154,840	ref. UNEP GEO-6 project document approved 22 Aug 2014
GEO-6 Current ACTUAL Estimated Cost	10,238,495	Important Notes: it includes the six GEO regional assessments that were added at a later stage; and the GEO process duration was also extended by two years, to allow the production of regional assessments and to match UNEA-3 timeline (thus increasing staff costs); Gender GEO; IEA Guidelines; Science - Policy interface Gap Analysis Report (UNEA-3)
How does the cost of GEO compare with i.e. IPBES?		
Annual GEO-6 Budget/Expenditure	2,047,699	Reflects average annual cost for all the GEO-6 process from 2014 to 2018 (5 years including regional assessments)
Annual IPBES Expenditure (2017)	6,749,553	IPBES only focuses on Biodiversity - Annual expenditure in 2017 (budget approved for year 2018 was: 8,732,772) - source: IPBES-6/9 document (draft)

The table shows how the annual average costs of GEO-6 is less than a third of IPBES (which is an assessment that covers only one theme: Biodiversity).

In view of the above, the GEO-6 is considered as very cost-effective, or done on a 'shoe-string' budget, when compared with the task at hand. Despite this cost effectiveness, it became apparent in August 2016 that Environment Fund resources across UN Environment would be significantly reduced. To mitigate this the core GEO-6 team began a resource mobilization effort and Member States generously stepped-in to support. This resulted in the successful mobilization of USD 3,758,985 or 51% of the full cost of the global GEO-6 (ref section 5 below).

This resource mobilization effort was essential to make the GEO-6 happen, and the support from Member States, both in cash and in-kind, was instrumental and most welcome as a complement to UN Environment core funding. However, these resource mobilization efforts may have generated a false impression among Member States that the GEO-6 'went over-budget'. The opposite was true: the GEO-6 was completed within budget, with the smallest amount of staff and resources in the history of the GEOs. Member States were approached for ad-hoc support simply because the amount of

core funding available or allocated (mainly Environment Fund) for the GEO-6 was not sufficient. Other contributing factors to the above wrong perception are illustrated below in section 6.

4. GEO-6 funding structure

Staff costs

The cost of the core GEO-6 team stands at approximately 59% of the total staff costs for the GEO-6. The remaining 41% of staff costs represent an estimate of the value of in-kind support provided by other UN Environment staff to e.g. review documents, provide technical inputs, support operational processes, etc. An example of what GEO-6 average annual staff costs from UN Environment core funds for 2018 are composed of is provided below:

Annual GEO-6 Staff Costs from Core Funds		
Staff	TOTALS	%
Core team (9 staff: 3P and 6G)	781,060	59%
Other UNEP staff contribution in-kind (all levels)	539,850	41%
TOTAL	1,320,910	100%

Allocation of UN Environment core funds to the GEO process

The tables below illustrate the core UN Environment funding (Environment Fund and Regular Budget) allocated to the GEO-6 global process between 2016 and 2018, in the framework of the overall allocation to the 'Environment Under Review' sub-program (SP7):

ALLOCATIONS of Core Funds to GEO-6 (only core team + activity costs)	2016	2017	2018	2016-2018
Total Allocation to SP 7 - Environment Under Review Across all Divisions & Regional Offices	4,600,000	4,700,000	7,181,066	16,481,066
Science Division Allocation to the Global GEO-6 (core staff + activity costs)	1,121,060	1,021,060	1,541,960	3,684,080
Average yearly UN Environment Core Funding allocated for GEO-6	1,228,027			

Note: amounts exclude in-kind staff contributions

Taking year 2018 as a reference (the best of the three years in terms of core funding allocation to GEO-6), we can determine an approximate annual funding gap, which was covered through individual extra-budgetary (XB) contributions from Member States.

GEO Yearly Funding Status									
A	Yearly Funding Requirement		B	Core Funding Sources		C	Yearly Funding Gap		
	Description	Amount		Funding Source	Budget Category		Amount	Description	Amount
	Yearly Average Based on Geo 6 Projected Expenditures	2,048,000.00		Environment Fund	Staff		529,060.00	Geo Yearly Funding Gap (C= A - B)	506,040.00
			Non-Staff	222,500.00					
			Regular Budget	Staff	252,000.00				
			Non-Staff	538,400.00					
			Total	1,541,960.00		Total	506,040.00		
	Total	2,048,000.00							

5. Additional Contributions from Member States to GEO-6

The total amount of additional Extra-Budgetary funds (XB) and in-kind support contributed by Member States to the GEO-6 in the period 2016-2018 was: **USD 3,758,000**. The breakdown by type of funding is provided in the tables below.

Funds for the Global GEO 2016-2018	USD	%
EF/RB core funds	3,684,080	49%
Extra-budgetary & ad-hoc cash contributions	2,833,985	
In-kind contributions (estimated)	925,000	
total XB mobilized	3,758,985	51%
Grand Total	7,443,065	

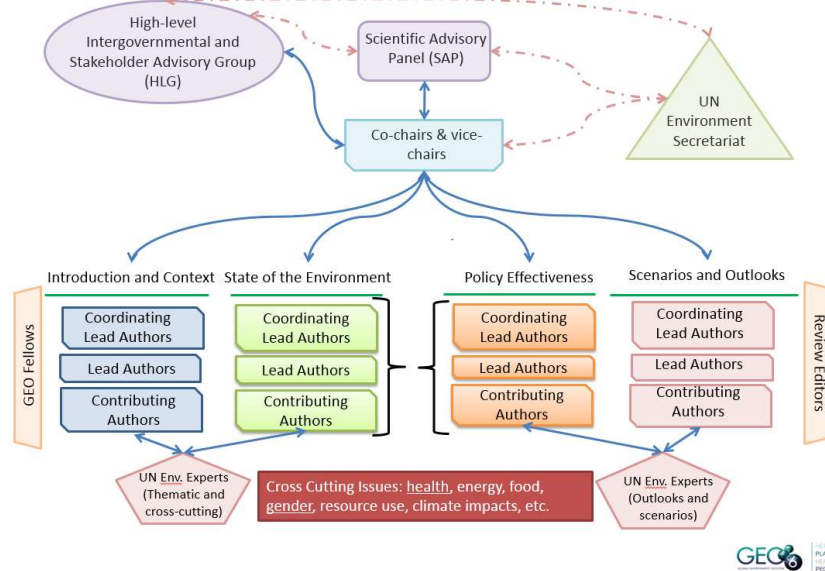
Funding Sources	Euro	USD	GEO-6 Meetings	Estimated in-kind contributions by hosts
Years 2016 and 2017				
Italy		267,461		
Norway 2017		840,000		
<i>Total 2017</i>		1,107,461		
Year 2018				
Norway 2018 earmarked funds		\$375,600	Frascati - ESRIN 2017	40,000
Norway non-earmarked funds 2018		\$586,000	Bangkok 2017	25,000
Denmark		\$64,513	Guangzhou 2017	300,000
Switzerland		\$100,000	Singapore 2018	360,000
Italy		\$118,483	Bonn 2018	15,000
European Union	400,000	481,928	Amsterdam 2018	15,000
<i>Total 2018</i>		1,726,524	Cancun 2018	120,000
Grad Total Global phase GEO-6		2,833,985	Cairo 2018	50,000
			Total	925,000

6. Other contributing factors to the perceived ‘bumps in expenditure’

There may have been a perception among some Member States that there were some ‘bumps in the budget’ and/or that the GEO-6 budget was ‘never enough’, and/or that UN Environment did not prioritize the GEO-6 when allocating core resources internally. This may be due to two main reasons:

- as illustrated in Section 3 above**, the allocation of core funds to UN Environment and within the organization in recent years has been sub-optimal. As a result, actual funds for operations have been well below the levels required, resulting in the GEO-6 team having to fund-raise externally to mobilize the necessary funds to complete a high-quality process.
- In addition to the above, the GEO-6 has a **complex working structure with a strong governance and advisory mechanism**, as agreed with Member States at the outset of the GEO-6 process (IGMS, Oct. 2014). This governance structure has some budget implications, that can evolve over time. It also imposes boundaries on UN Environment which the core GEO-6 team must respect. The working structure of the GEO-6 is illustrated below:

Working Structure of the Global Assessment



The above structure results in multiple, ‘quasi-binding’ instructions, guidance and requests provided to the GEO-6 team (and, by extension, to UN Environment’s Executive Director) by the High-Level Group, other advisory bodies and by the community of volunteer authors. During the GEO-6 process these guiding elements and valid requests evolved over time, and they determined the needs and priorities for a successful completion of the GEO-6. This governance structure contributed to delivering a high-quality process and policy relevant and scientifically credible product. However, it did also have clear budget implications for UN Environment. For example, during the GEO-6:

- Guidance from High-Level Group (Member States + Stakeholders) resulted in the need to:
 - Ensure interaction between advisory bodies and authors = invite Scientific Advisory Panel and High-Level Group to most authors meetings (budget increase)
 - Increase visibility, return on investment and impact of GEO-6 = organize outreach events and communications at each major GEO-6 meeting (staff and budget needs)
 - Ensure regional balance in GEO-6 events = meetings to be held across the world (need to fund-raise and solicit support from member states to host meetings in each region)
- Guidance from Scientific Advisory Panel (ensuring the scientific credibility of the GEO-6), resulted in the need to:
 - Ensure coverage of 12 cross-cutting themes by experts in each issue and coherence across the entire report = organize large all-authors meetings to ensure collaboration across the author teams (budget neutral).
 - Increase the number of authors to ensure geographical and gender balance (budget increase)
- Guidance from Review Editors and other advisory bodies (Quality Assurance, data & methodology), resulted in the need to:
 - Organize additional authors meetings to ensure enough time for the deliberations of the Scientific Advisory Panel as well as more drafting time for Outlooks and Policy authors (budget increase)
 - Organize a final back-to back meeting of Scientific Advisory Panel and Review Editors (budget increase)

- The Authors (they contributed as volunteers to ensure an unbiased assessment), resulted in the need to:
 - Organize large meetings that would provide sufficient time for the authors to write, work together, interact among thematic and cross-cutting groups and with the advisory bodies (budget neutral)

7. Are we learning from the past?

Yes, continuously. For example: all key lessons that emerged from the GEO-5 terminal evaluation were fully taken into account in the design and implementation of GEO-6 [ref. GEO-6 Mid-Term Evaluation report - (findings to be presented to the CPR on December 11th briefing session)], for example:

- New independent, expert-led process (shifting away from UNEP-contracted collaboration centers, mostly in the developed world);
- More focus on equity, gender and geographical balance (avoid perception of North preaching to South);
- 6 Regional GEO-6 assessments produced together for the first time;
- Global GEO with more emphasis on solutions-oriented forward-looking policy-relevant outlooks;
- Continuous and higher level of engagement of all advisory bodies (monthly virtual calls);
- More integrated analysis based on Agenda 2030 and progress towards achieving Sustainable Development Goals;
- Greatly enhanced quality assurance processes (now considered best-practice)

A satisfactory Mid-Term evaluation of GEO-6 was completed in July 2018 (overall rating: Satisfactory), and all recommendations are already being fully implemented. Continuous links with Environment Live, the SDG Reporting Platform and the new World Environment Situation Room are being ensured while considering available staff and financial resources.

8. The way forward

The GEO has always evolved over time, and it will continue to evolve, to meet the needs and priorities of Member States, and to match the evolving scientific and policy context.

A detailed Scoping Study on the future of GEO is ongoing, looking at all existing studies on integrated environmental assessments, and assessing all options for the future of GEO (preliminary findings to be present to the CPR during the December 11th briefing session). The focus is first on defining the Functions of a future GEO process (e.g. the future GEOs can underpin the UN Environment Assembly as a policy making forum, and inform the MTS/POW), then members states and UN Environment can proceed to define the future Form of a GEO.

9. Contacts

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Science Division



United Nations
Environment Programme

Annexes

Letter from the Scientific Advisory Panel on the scientific credibility of GEO-6 (22 Nov 2018)

[Provided as separate Acrobat document]



Science Division

Some numbers on GEO-6

- **Members of Advisory Bodies:** 78 [High Level Group – 33; Scientific Advisory Panel – 23; Assessment Methodology Group – 12]
- **Authors:** 146 [Authors – 120; Young Fellows- 26]
- **Quality Assurance:** 41 [Review Editors- 36; Science and Copy Editors- 5]
- **UN Team:** 301 [UN Environment chapter coordinators- 15; GEO-6 core team- 7; Wider team of UN expert reviewers- 279]
- **Peer Reviewers:** >1,370 [Technical reviewers- 1,006; Intergovernmental reviewers and government review focal points- 364 (noting that each government focal point coordinates inputs from several experts)]
- In total the GEO-6 assessment has been **reviewed five times** at different stages of its development and the process has yielded a **total of 14,388 comments** that were addressed by the authors.
- The **gender and geographical balance** in all advisory bodies and in the community of authors was ensured through close collaboration between the UN Environment team and the Scientific Advisory Panel
- The GEO-6 Global process was completed over a period of **18 months**, with a total of **7 face-to face meetings** organized and several **hundreds of virtual conference calls** to coordinate and support advisory bodies and the community of authors



Relevant Resolutions underpinning the GEO and GEO-6

UNEA Resolution 1/4: Requests the Executive Director...undertake the preparation of the sixth Global Environment Outlook (GEO-6), supported by UNEP Live, with the scope, objectives and procedures of GEO-6 to be defined by a transparent global intergovernmental and multi-stakeholder consultation...scientifically credible, peer-reviewed GEO-6 and its accompanying summary for policymakers”

United Nations General Assembly Resolution 2997, 1972 establishing the UN Environment Programme and defining ‘keeping the world environment under review’ as our core function:

2. *Decides* that the Governing Council shall have the following main functions and responsibilities:

(a) To promote international co-operation in the field of the environment and to recommend, as appropriate, policies to this end;

(b) To provide general policy guidance for the direction and co-ordination of environmental programmes within the United Nations system;

(c) To receive and review the periodic reports of the Executive Director of the United Nations Environment Programme, referred to in section II, paragraph 2, below, on the implementation of environmental programmes within the United Nations system;

(d) To keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance receive appropriate and adequate consideration by Governments;

(e) To promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information and, as appropriate, to the technical aspects of the formulation and implementation of environmental programmes within the United Nations system;



Abstract from a relevant paper on Integrated Environmental Assessments [source:
Polgrave Communications, December 2016 – DOI 10.1057/plcomms.2016.92]

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OPEN

Scientific assessments to facilitate deliberative policy learning

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ABSTRACT Putting the recently adopted global Sustainable Development Goals or the Paris Agreement on international climate policy into action will require careful policy choices. Appropriately informing decision-makers about longer-term, wicked policy issues remains a considerable challenge for the scientific community. Typically, these vital policy issues are highly uncertain, value-laden and disputed, and affect multiple temporal and spatial scales, governance levels, policy fields, and socioeconomic contexts simultaneously. In light of this, science-policy interfaces should help facilitate learning processes and open deliberation among all actors involved about potentially acceptable policy pathways. For this purpose, science-policy interfaces must strive to foster some enabling conditions: (1) “representation” in terms of engaging with diverse stakeholders (including experts) and acknowledging divergent viewpoints; (2) “empowerment” of underrepresented societal groups by co-developing and integrating policy scenarios that reflect their specific knowledge systems and worldviews; (3) “capacity building” regarding methods and skills for integration and synthesis, as well as through the provision of knowledge synthesis about the policy solution space; and (4) “spaces for deliberation”, facilitating direct interaction between different stakeholders, including governments and scientists. We argue that integrated, multi-stakeholder, scientific assessment processes—particularly the collaborative assessments of policy alternatives and their various implications—offer potential advantages in this regard, compared with alternatives for bridging scientific expertise and public policy. This article is part of a collection on scientific advice to governments.