

Chapter

3

Collaboration and Participation in the Global Environment Outlook Process

3.1 Introduction

Collaboration and participation have always been essential elements of the Global Environment Outlook (GEO) process. This chapter explores how GEO has enabled and evolved a collaborative, participatory approach over time, along with the various roles that multiple organizations and individuals have played in the process. A network of independent partner institutions from around the world has formed the core of the GEO assessment process from its start. But as the GEO series has progressed, individual experts have taken over a much greater proportion of the analysis and preparation of report contents.

The next three sections of this chapter look at the respective roles of these two critically important groups and the reasons for the progressive transfer of responsibilities from one to the other. But participation in the process has extended well beyond these two groups. The penultimate section summarizes the additional key roles that other participants have carried out for GEO – some through collaboration in a group context and others who have acted in an individual capacity based on their specialized knowledge and experience. This chapter does not cover the multiple tasks and responsibilities undertaken by United Nations Environment Programme (UNEP) Secretariat staff in Nairobi and the regions.¹ Instead, their major support function in coordinating and contributing to the overall process is covered in Chapter 7.2.

Useful insights into the evolution of the GEO process were provided by those persons interviewed by the authors during the preparation of this book, all of whom had participated in GEO in one capacity or another over the years. They were asked what significant changes they were aware of and whether these had been positive or negative. The responses were diverse, but nearly everyone had strong views one way or another. Many of their responses have been quoted or paraphrased in different parts of this chapter to provide an additional dimension to the analysis.

3.2 Partner institutions

From the beginning, producing GEO was envisaged as a participatory process. One of the first organizational steps in 1995 was to identify a range of partner institutions to undertake various functions. Governing Council Decision 18/27C, which initiated GEO, specifically requested basing the report on existing data in close cooperation with several other United Nations (UN) agencies and on the research results of relevant public and private institutions. Beyond the UN, several institutes that had assisted UNEP in formulating the new assessment proposal were obvious choices. They included the National Institute of Public Health and the Environment in Bilthoven, The Netherlands; the Stockholm Environment Institute; and the World Resources Institute in Washington, DC. Each of these institutions had people with considerable knowledge of, and experience in, global processes. They also had specialized environmental expertise as well as strong links to the policy arena.

¹ UNEP maintains regional offices in six regions: Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, North America and West Asia.

Specialized institutes have continued to play a critical role in every GEO to date, performing complementary functions such as scenario development, modelling and the analysis of global change processes, earth system complexities and environmental sustainability. Without their willing participation, many of GEO's analytical and global dimensions would not have materialized.

The greater challenge was identifying a group of reputable, multidisciplinary institutions that were knowledgeable and active at regional, or sometimes national, level – and considered to be at the cutting edge of the environmental science-policy interface. It was crucial to have a broad geographical distribution of these institutes to be representative as a network and collectively cover the entire globe. Partners with particular thematic focus were also needed to encompass all major disciplines relevant for a global integrated environmental assessment. While partners were expected to represent the highest level of scientific credibility, there was also a recognition that capacities often vary significantly from region to region. In some, the choice of partners was limited, and involvement in GEO was considered a learning and capacity-building process.

The Collaborating Centre Network

GEO-1 ended up with 20 partner institutions, selected by UNEP staff at headquarters and regional offices and recognized as GEO collaborating centres (CCs) after that. In terms of regional distribution, there were three CCs in Africa, five in Asia and the Pacific, four in Europe, three in Latin America and the Caribbean, three in North America and two in West Asia. The report of the March 1997 formal inauguration of the network reads like a catalogue of diversity in terms of expertise and institutional position (UNEP, 1997e). Regarding specific geographical coverage, gaps were noticeable – including the Polar regions and Pacific and Caribbean islands – requiring six additional institutes during parts of the process.² There were also challenging expectations for some of the CCs that were, for example, tasked with drafting state-of-environment perspectives on parts of the world for which they had no first-hand knowledge.

In the ideal case, a partner institution would involve several of its staff in the GEO process, delivering multiple skills and perspectives:

² While their contributions were acknowledged, they were not officially designated as CCs for *GEO-1*.

In the collaborating centre, we are experts from different specialties and each one of us is supposed to have a team that consists of people from inside or outside the university. We have a lead author write the report and we sit together and review each part to have at least a respectable zero draft (Asma Ali Abahussain interview).

Quite often, however, the onus fell upon a single person, which was very challenging for the individual concerned and most likely overlooked the full range of relevant expertise of the institute. "It seemed to be individuals who carried the responsibility of the chapters in the end...it would be the personal thrust and motivation of an individual to get the chapter done" (Jane Barr interview).

Subsequent GEOs saw a major expansion in the global network of partner institutions, called collaborating and associated centres in *GEOs-1* to *4* and contributing institutions and organizations in *GEOs-5* and *6*. Whatever the name, 37 partner institutions participated in *GEO-2000*, 37 in *GEO-3*, 54 in *GEO-4*, 57 in *GEO-5* and 43 in *GEO-6* (Table 3.2.1 and Annex II). The increase in numbers undoubtedly strengthened scientific, technical and policy expertise in the process and filled in geographical gaps. By *GEO-4*, for instance, the number of regional partners had increased to six in Africa, 11 in Asia and the Pacific, nine in Latin America and the Caribbean and seven in West Asia.

The designation of partners was not entirely formal. Some CCs – especially in earlier GEOs – received a letter from UNEP's Executive Director identifying them as a CC or a Memorandum of Understanding setting out their responsibilities and the agreed funding. Others were simply invited to send participants to meetings or requested to provide inputs. Although UNEP normally covered their meeting expenses, significant in-kind contributions – services provided without receiving payment from UNEP – were made by individuals or institutes. A post-*GEO-3* evaluation from the perspective of CCs, with 28 of the 36 CCs responding, found that in terms of in-kind contributions 64 per cent had provided staff time for GEO, 28 per cent had hosted meetings, and 20 per cent had covered overhead costs like office space (UNEP, 2004d).

The Role of Collaborating Centres

The role of GEO CCs tended to evolve, and often diversify, from one iteration to the next, especially if they participated on a long-term basis. A participant from the Arabian Gulf University, one of only three partner institutes to work on all six global GEOs, noted the evolution of their contributions

to regional content development. For *GEO-1*, they just reviewed the report. For *GEO-2000*, they developed draft material, and by *GEO-4*, they were working together on the same agenda with other CCs at an institutional level (Waleed Khalil Zubari interview). "So, the evolution of GEO started from more internally being put together to a more decentralized approach...through the regional offices and the collaborating centres in different regions. I think that was central to GEO being successful" (Munyaradzi Chenje interview).

But the task was not always easy. For example, the Head of Information Exchange at the Regional Environmental Center for Central and Eastern Europe reported that their task for *GEO-2000* to compile, summarize and edit much of the information received from their own centre as well as from other European partners was frustrating due to new decisions made between UNEP and CCs, changes in methodology and format, poor quality inputs from other institutions and guidelines not being followed (REC, 1999).

But content development was not the only way that CC staff participated in GEO. Being a GEO CC meant interaction and collaboration – participating through planning, drafting and consultation in regional and global meetings and communicating throughout the process, not just with UNEP offices but also with each other. At the regional level, interviewees stated that CC staff "also took some coordinating role geographically or technically, often because of their knowledge of the GEO methodology and the participatory process" (Kakuko Yoshida interview), so the more experienced CCs were able to guide the newer partners. Knowledge based on experience at the regional level was also a considerable benefit for ensuring that the best available regional and subregional information was being used in GEO. "I thought that establishing a network of collaborating centres who are working on these topics on a continuous basis is actually the best way of getting the most up-to-date information" (Peter Noel King interview).

Box 3.2.1: Being Part of GEO

The most detailed evaluation from the perspective of GEO CCs was carried out after *GEO-3* when CCs were still the backbone of the report's preparation (UNEP, 2004d). Collectively they rated their experience in integrated assessment, institutional capacity, regional level expertise, communications and networking, and multidisciplinary teams as the top five strengths that they brought to GEO.

Some UNEP staff who worked closely with the CCs and were interviewed for this History look back with appreciation:

- ▶ “GEO and its early success were in large part thanks to the network of collaborating centres we put together.”
- ▶ “Really, without the collaborating centres there would have been no GEO. We had fantastic collaborating centres...whatever successes we had, it was because of them, their hard work and dedication and willingness to do all that work for nothing or very little.”
- ▶ “To get GEO to be a good piece of work...it is the goodwill of institutions, the goodwill of collaborating centres, the goodwill of researchers who feel that it's ...a public service...it takes people who are driven.”

In the early years of GEO, there was no formal training for anyone involved, whether they worked for UNEP or came from outside. For all, it was entirely a learning-by-doing process, although key individuals drew upon and contributed their prior experience with global reports or scenarios and modelling, for example. And while learning-by-doing continued right through to the latest *GEO-6*, UNEP also set up a more formal capacity-building programme to enhance the integrated environmental assessment abilities of both GEO partners and a much broader group of practitioners in the regions. “The GEO process brings together the experts. The training programme produces new experts” (Michael Keating interview). The steps and efforts taken to do this are summarized in Chapter 7.4.

Partner Institutions – Evolving Numbers

Altogether some 129 different institutes from around the world have participated in the GEO process between 1995, when work began on *GEO-1*, and 2019, when *GEO-6* was launched (Figure 3.2.1 and Annex II). Without a doubt, the GEO process benefited hugely from the contributions of this diverse network of partners: there is no way that the process outcomes would have been achieved without them. They have provided not only an immense amount of knowledge and expertise but also donated an immeasurable amount of staff time, and sometimes much more, as in-kind contributions to the process. Their participation has helped ensure that the three essential attributes of integrated environmental assessment – relevance, credibility and legitimacy – have been met through all iterations of the GEO process and products to date.

Figure 3.2.1. GEO collaborating entities

GEO collaborating centres and other contributing institutions have existed in all world regions, except the polar region.

(Source of information: Annex II)

From a different perspective, there are some possibly unexpected, and likely significant, implications resulting from the changes in the GEO partner networks over the years. Table 3.2.1 provides some insightful statistics. As mentioned earlier, the total number of partner institutions more than doubled between *GEO-1* (26) and *GEO-5* (57). For *GEO-6*, there were 62 partner institutes listed, but 19 of these were government ministries and offices and not included in this analysis due to their very different status to the other types of partner institutions.

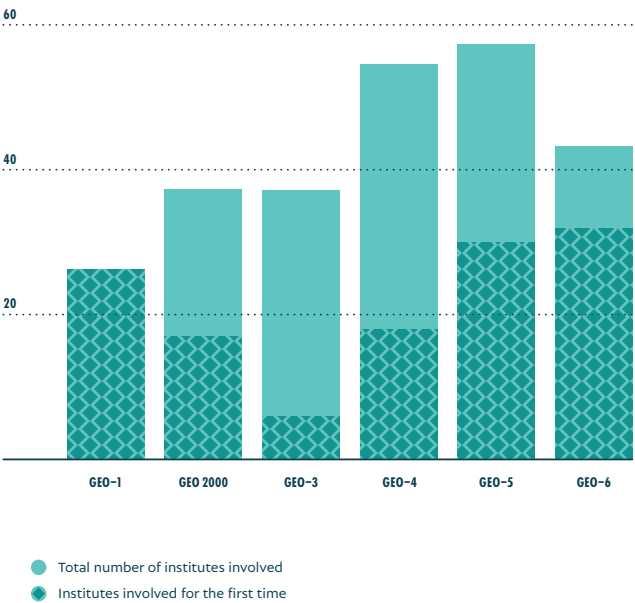
Partner institutes involved in a previous GEO could add value to the process. Obviously, all of the 26 partner institutes involved in *GEO-1* were first-timers (Table 3.2.1 and Figure 3.2.2). In *GEOs-2000*, 3 and 4, more than half of the partner institutes had been involved in at least one previous GEO, enabling them to contribute process understanding, product experience and lessons learned to the next round. In the two latest *GEOs*, the number of repeat partner institutes fell below 50 per cent, reaching a low of 26 per cent for *GEO-6*, with only 11 of the 43 partner institutions involved in any previous GEO. There could be many reasons for this, including a shift in report focus requiring alternative institutional expertise, waning interest of institutes in continuing their engagement due to the repetitive nature of GEO, or the extended periods between successive *GEOs*.

Table 3.2.1. Involvement of partner institutes in global GEO Reports

	Partner institutes involved	Partner institutes involved for the first time		Partner institutes also involved in an earlier GEO	
<i>GEO edition</i>	<i>number</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>
1	26	26	100	0	0
2000	37	17	46	20	54
3	37	6	16	31	84
4	54	18	34	35	66
5	57	30	53	27	47
6	43*	32	74	11	26

*This excludes the 19 government offices/ministries listed as ‘contributing institutions and organizations’ for GEO-6 (UNEP, 2019e, p. 686).

Figure 3.2.2. Involvement of collaborating centres and other contributing institutes in global GEO Reports



Continuity of involvement was strongest for GEO-3 but greatly reduced by GEO-6.

(See Annex II for details and sources)

In addition, any personnel changes in UNEP or the partner institutes could have erased institutional memory on either side. "Influx of new blood in the process is inevitable, but this influx...requires very consistent effort from the UN team to keep all participants tuned to the same wave[length], and not lose institutional memory which was built up during the process." (Ruben Mnatsakanian interview). Whatever the reasons, considerable additional time and effort will have been required to bring the many new GEO partners up to speed on integrated environmental assessment in general and their specific roles in the process in particular.

Of the 129 different partner institutes involved in GEO to date, there are 48 that have participated in more than one GEO, including 28 that have played a role in four or more of the GEOs (Table 3.2.2 and Annex II). This continuity has provided a valuable opportunity to retain and hand down institutional memory through the series. At the other end of the spectrum, another 81 institutes have only been involved in one GEO. It is certainly feasible that these fresh eyes may have stimulated alternative approaches, and more experimentation and innovation, in those GEOs.

Table 3.2.2. Institute participation in multiple/single GEOs

Total number of GEOs that partner institutes were involved in	Number of partner institutes involved in multiple/single GEOs	Which GEOs were the one-time partner institutes involved with?	How many one-timers were there in each GEO?
All six GEOs	3	<i>GEO-1</i>	4
Only five GEOs	10	<i>GEO-2000</i>	4
Only four GEOs	15	<i>GEO-3</i>	3
Only three GEOs	4	<i>GEO-4</i>	11
Only two GEOs	16	<i>GEO-5</i>	27
Only one GEO	81	<i>GEO-6</i>	32
TOTAL	129	TOTAL	81

3.3 Shifting of roles and responsibilities from partner institutes to individuals

GEO-4 marked a major turning point regarding participation in the GEO process. Much of the impetus for this new way of working stemmed from a Governing Council (GC) initiative on strengthening the science base of UNEP. A consultative process established by GC-22 in 2003 (GC/UNEP,

2003b) resulted in many general recommendations relevant to GEO (IISD, 2004). While commending the bottom-up approach used in GEO, it called for a more effective interaction between science and policy through inter-governmental and multi-stakeholder consultations.

Planning for *GEO-4* began in early 2004. Over the next year, there were two design meetings, six regional consultations and further meetings with other experts and partners. The *GEO-4* preparatory process culminated in February 2005 in a Global Intergovernmental and Multi-stakeholder Consultation on the Scope and Process of the Fourth Global Environment Outlook. This first global consultation during the design phase of a GEO articulated 34 key questions for *GEO-4* and a set of process recommendations to use:

the best scientific knowledge and expertise in a geographically, disciplinary and gender-balanced way for interacting with policymakers and civil society and analyzing critical environmental issues through an open and transparent, multi-scaled, multi-sectoral and multidisciplinary integrated assessment of high legitimacy, credibility and utility ... including by Establishing expert working groups identified through various processes including nominations by governments, relevant international and regional bodies and collaborating centres, chosen on the basis of scientific merit... [and] requests the Executive Director to contact governments and partners inviting them to submit their nominations for experts to participate in *GEO-4* (UNEP, 2005f, para. 10,12(a),13).

Thus while *GEO-4* had the greatest number of CCs to that date, the major design of the chapters was done by expert working groups,³ and the contents were developed by author teams made up of individuals designated as coordinating lead authors, lead authors and contributing authors. While these teams still included many CC representatives, the CCs played a less conspicuous role, and the majority of authors were involved in their personal capacity, having been nominated by governments based on a track record of particular science or policy expertise. The author teams ranged from 19 to 91 persons across the ten chapters of *GEO-4*, with the largest team responsible for Chapter 6, "Sustaining a Common Future," containing the main regional analysis within the report. This essentially hybrid approach was commended in the subsequent evaluation of the assessment: "The GEO process has over time built a broad constituency of environmental organizations and experts committed to GEO, all engaged

³ The term 'working group' is also used to name some of the expert and advisory groups established to support GEO (Chapter 7.3).

in co-producing the knowledge. This is a critical strength of GEO and one that should be safeguarded and used to champion GEO after its production" (IUCN and UNEP, 2009, p. 59).

While *GEOs-5* and *-6* adopted a similar approach and process to *GEO-4*, the collaborating centre designation and visibility vanished. The four-page description of 'The *GEO-5* Process' at the end of the report does mention that GEO CCs contributed time and knowledge to the process and that they, along with governments and other major stakeholders, had been asked to nominate experts. But, unlike in earlier GEOs, they are no longer listed specifically as 'collaborating centres,' but they are grouped as 'contributing institutions and organizations' instead (UNEP, 2012a, p. 504). Of the 57 institutions listed in *GEO-5*, 27 had also collaborated in earlier GEOs and 12 had been involved in every GEO so far produced (Annex II). In *GEO-6*, there is no mention of collaborating centres, and only 11 of the 43 partner institutions had been involved in earlier GEOs (Table 3.2.1).

Writing teams have continued to comprise coordinating, lead and contributing authors, with more than 310 individuals involved in the content development of *GEO-5*, around twice the number who prepared the 25 chapters of the even longer *GEO-6*.⁴ The main new development for *GEO-6*, as recommended by the Science Advisory Panel, was the appointment of two Co-chairs and two Vice-chairs to oversee the report's entire content and help ensure scientific credibility.

Thus, since 2005 GEO has adopted the authorship practices of the Intergovernmental Panel on Climate Change (IPCC) reports and the Millennium Ecosystem Assessment. This 'IPCC-ization' of GEO also introduced updated process guidelines, a more extensive and rigorous peer-review process and greater government participation in some of the high-level advisory groups and negotiations of the Summary for Policy Makers. Table 3.3.1 summarizes interview responses on the IPCC-ization of GEO.

⁴ One of the basic principles established by advisory bodies for *GEO-6* was that author teams should be kept small, since the regional assessments would contain much of the information needed for the global assessment and should form its foundation (UNEP, 2019e, p. 664).

Table 3.3.1. Opinions from interviewees on the IPCC-ization of GEO

Is the IPCC an appropriate model for GEO?	
• IPCC is focused on one problem from many different dimensions. But you can't do that with GEO... it's a completely different structure, not focused on something single. • It has pulled the report into the scientific ground and away from the policy-science interface. • We have some staff members who would like to behave like IPCC. But GEO is not at all the process of IPCC. Some coordinating lead authors and authors do not understand DPSIR [Driving forces-Pressures-State-Impacts-Response framework], and they come with methodology and primary research, so it's a bit chaotic. • GEO has never been published by a peer-reviewed publisher, so it doesn't count for your citation index. Authors can't even get credit and are not incentivized to engage (unlike being an author for the IPCC). • It was a very big mistake, and to continue the IPCC model is continuing this big mistake. • It could have been done in a hybrid way: keep the CC network strong, widen the base to include other centres from areas not covered by the current CCs and then involve experts to augment the CC network.	
What were the consequences of IPCC-ization on GEO?	
PROs	CONS
• The more people that are involved in creating GEO, the more impact it's going to have. • Bringing more people in has raised awareness. • Especially in the last couple of years, it has been a great capacity-building opportunity by engaging people outside Europe and North America; being part of the process has been enlightening for the hundreds of experts and scientists involved. • This layer of intergovernmental credibility/legitimacy should have given greater acceptance and impact to the findings. • The main intention was to strengthen the science behind it. GEO can now be considered up there with the major assessment processes.	• The process lost a lot of good experts and gained a lot of not-so-good experts. • The learning-by-doing, bringing new participants up to speed, has cost a lot. Formal capacity-building has all but disappeared. • Moving to individuals risks losing institutional memory of the process. • It's much more difficult to maintain the momentum when relying on individual scientists. • GEO has been watered down and lost its independence by becoming overly intergovernmental/too political. • It's risky trying to please all governments. It's the lowest common denominator kind of assessment now. • They became reports saying what governments wanted to say about the environment, no longer independent and science-based.

What impact did the IPCC-ization of GEO have on existing CCs?

- Most of the CCs were not happy because it seemed to undermine their role and question their credibility.
- When they [UNEP] decided to get the IPCC model of lead, coordinating and contributing authors, the role of CCs was minimized. It really did weaken the process. Some colleagues refused to continue working [on GEO]. "Why should I work? We are not a collaborating centre anymore, and we are not a team."
- The CC system provided sustainability and continuity of expertise as a result of learning-by-doing and passing on expertise to new colleagues. For *GEO-6* and West Asia, beginners wrote the regional assessment, producing a poor quality draft.
- There was no shift in CC involvement: they were still involved but maybe in a reduced capacity.
- Starting from *GEO-4*, we were real authors from the beginning – we participated in all events.

This table has drawn from interviews with Asma Ali Abahussain, Adel Farid Abdel-Kader, Joseph Alcamo, Nicolai Dronin, Edgar Gutiérrez-Espeleta, Jason R. Jabbour, Peter Noel King, Clever Mafuta, Ruben Mnatsakanian, Nicolas Perritaz, Ashbindu Singh, Leena Srivastava, Anna Stabrawa, David Stanners and Kaveh Zahedi.

3.4 A closer look at author groups

In relation to nominating and selecting individual experts as authors, governments requested ongoing consideration of the need to ensure geographic, disciplinary and gender balance. On a wider level, the *Review of the Initial Impact of GEO-4* (IUCN and UNEP, 2009) stressed that the extent and manner of stakeholder involvement in the design, development and dissemination of the assessment are critical to its salience, legitimacy and credibility. It also stressed that there is a delicate balance to be met when involving both scientists and diverse stakeholders who represent the views of target audiences. An over-involvement of scientists can reduce the political resonance of the process, whereas tipping the balance in the other direction can decrease its scientific credibility.

Focusing on author groups and the lists of contributors acknowledged in the various GEO reports, the stipulations on broad participation appear to have been met. However, the evaluations carried out after the completion of *GEO-4* (IUCN and UNEP, 2009) and *GEO-5* (Rowe et al., 2014) both expressed reservations about the broad composition of author groups. For *GEO-4*, it was noted that "Working Group members (that is, author teams) recommended a better balance of policy, sciences (social and natural),

academic and development expertise" and that "the absence of private sector participation in the GEO process means that the Report lacks the private sector perspective" (IUCN and UNEP, 2009, p. 30). The *GEO-5* evaluation stated that "the assessment process did not include the diversity of interests and stakeholders that was implied by the GC Decision and requested by the Global Intergovernmental and Multi-stakeholder Consultation, and the majority of contributors was drawn from countries with a high level of development" (Rowe et al., 2014, p. 2). However, on a more positive note, it did consider that there was a "favourable gender balance in *GEO-5* contributors" (Rowe et al., 2014, p. 37). About 40 per cent of *GEO-5* authors and reviewers were women. The highest representation was among the *GEO-5* Fellows at 64 per cent, while lead authors were at the low end with 34 per cent.

Interviewees who had been closely associated with author groups also made some interesting observations about their composition and effectiveness. One considered that people from West and Central Africa were clearly under-represented because GEO is by default such an English language-based process. Another stated that the independent consultants in the groups presented their own views and not the regional views. There was also an opinion that bringing government staff who are not academics into the writing teams caused a certain amount of tension around scientific credibility and legitimacy, but that it also resulted in compromises on relevant issues. Other points emphasized significant insights. For example, in developing countries, there are only a handful of scientists, they are used in all processes, and they are always stretched. Also, some bias is likely because most authors are based or trained in the North. As well, a lot of information written in less widely spoken languages such as Japanese and Korean probably never found its way into GEO.

The other main issue mentioned was the lack of participant continuity from one GEO to the next. One interviewee made the point that individuals change. They volunteer while they are young and enthusiastic about contributing to GEO to build their career. But once their career is built, they are not keen to put their effort and time into it for free, so they don't participate. With reference to *GEO-6*, they added that everyone was new in the GEO process, they didn't know what to do, and they had little or no experience. Having received no capacity-building or training, these participants were unable to deliver. West Asia and North Africa were two subregions that suffered tremendously from this discontinuity.

Despite the IPCC-ization of the GEO process, the need to build capacity related to integrated environmental assessment and environmental data

has continued to feature in GC and United Nations Environment Assembly (UNEA) decisions relating to GEO. Thus capacity-building is still clearly viewed by member states as a valuable attribute of the global GEO process and one that should continue. However, with the change of methodology and process design, and reduction of available funding, the formal capacity-building dimensions disappeared from the global process to a large extent. Shifting the emphasis to individual scientists was expected to increase scientific credibility, as only those who already had capacity were expected to be selected. While this presented an opportunity to individuals, it resulted in weakening GEO's ability to contribute to institutionalizing capacity that would be available for alternative integrated environmental assessment processes based on the GEO template but conducted independently, as seen during earlier GEOs. However, to ensure some continuity of capacity-building in the global process, the UNEP Secretariat introduced a GEO Fellowship initiative in August 2005 that engaged young and qualified professionals in *GEO-4*. This alternative capacity-building component linked to author groups is summarized in Chapter 7.4 and has continued through *GEOs-5* and *-6*.

3.5 Other GEO Participants: A Medley of Roles

This chapter has focused on the role of independent partner institutions and individual experts in researching and developing the content of the GEO reports. However, preparing and delivering a global assessment is a multi-task process, and there have been many other groups and individuals who have also participated, either by strengthening the legitimacy and credibility of the report or by performing other vital functions in the process. Their roles are summarized in the subsections below.

UN Member States

Member states of the UN form the governing body of UNEP and, through sessions of the GC and UNEA, have made every decision requesting the Secretariat to deliver a GEO (Annex I). A subset of member states, comprising the Committee of Permanent Representatives, regularly meets at UNEP Headquarters in Nairobi and considers various documents, including progress reports and draft decisions, before they reach the GC/UNEA. Over the years, the Committee of Permanent Representatives has played a significant role in steering some GEO-related decisions. A UNEP staff member observed that "Our 'board of directors' [UNEA] is made up of

193 countries, and they are not a ubiquitous bunch. They all need GEO for different things. And they all have slightly different positions about what GEO is and ought to be and could be and should be."

As principal stakeholders, member states have collectively played several more direct roles in the GEO process over the years. "The UN is inter-governmental, so involving governments more makes sense" (Ashbindu Singh interview). From *GEO-1* onwards, all governments have been invited to review draft chapters of the reports and participate in regional consultations that promote GEO-related interaction between scientists and policy-makers. The regional consultations for the first three GEOs took place as a stage in the draft review process.

For the first time, UNEP held regional meetings during the planning phase of the *GEO-4* process to come up with a preliminary design and select key regional issues. Then, like the earlier GEOs, the process proceeded to a set of regional consultations once the first draft was ready for review. For both *GEO-5* and *GEO-6*, regional consultations were held early on, before drafting began. For *GEO-5*, they identified priority challenges and relevant internationally agreed goals and targets. For *GEO-6*, they were part of the process to prepare the regional reports (Chapter 5.4); no regional consultations were held specifically for the global report. From the national perspective, the choice of representatives who participate in consultations is seen as significant by interviewees. "[Some] are very strong when it comes to governmental review; they get their government position well, and the messaging they want carries the day. Whereas those from my part of the world [Africa] are maybe not getting and pushing forward...what we want" (Clever Mafuta interview). "Regarding Government review, we are not sure that the nominated guys from the Government have the requested ability to tackle this issue. And do they have enough time to read a whole chapter?" (Jacques-André Ndione interview).

As part of the IPCC-ization of the global process, a Global Intergovernmental and Multi-stakeholder Consultation was introduced during the planning phase of *GEO-4*, and these have continued to take place at the beginning and end of every GEO since then. Those held in the initial stage of preparation have decided the objectives, scope and process for the report; those held once the report is finalized have negotiated the Summary for Decision or Policy Makers (SDM or SPM).

Other channels through which some member states have participated in GEO include the designation of government ministries or departments as partner institutes so they will provide inputs to the drafts. As noted in

Table 3.2.1, 19 government ministries were listed as partner institutes in the acknowledgements of *GEO-6*. In addition, some government representatives have been members of high-level advisory groups (Chapter 7.3) or part of author teams:

Having government officers – directors and senior technical people – participating actively in the GEO process, even as a writer or reviewer, had a major benefit to the content of GEO, but also allowed them to take back some of the state of the environment information to their own government and reflect on that (Kakuko Yoshida interview).

So even draft material could act as an early conduit for conveying policy-relevant messages to decision makers.

There is, of course, often a downside to change, and the increased IPCC-ization of the GEO process since *GEO-4* has received its share of criticisms. Opinions have been voiced that there is now too much government interference in the entire process. This interference could limit GEO's flexibility to respond to new challenges and unforeseen developments. As well, it could compromise the scientific integrity of the reports and weaken the messages relayed to decision makers due to compromises that are inevitably made when agreeing texts through a consensual process (Box 3.5.1).

Box 3.5.1: Negotiating the SDM/SPM

The SDM for *GEO-4* (UNEP, 2007c) was the first summary submitted to negotiation by member states. It was considered and endorsed by 69 governments and a number of other stakeholders in Nairobi in September 2007. The process proved to be a real eye-opener for all. Although a few countries sent delegates to the negotiation, most of the representatives were "generic diplomats who just happened to be there [embassy staff based in Nairobi] and were very much confronted by something they had never seen before because the GEO process was not happening every day. Many thought, 'What is happening here? Why are we fighting?' I think it was mostly the USA competing with Europe." (Martijn Dadema interview) The *GEO-4* evaluation (IUCN and UNEP, 2009) concluded:

Of particular concern is the general perception across user groups that the Summary for Decision Makers production process did not meet standards of independence. The Summary for Decision Makers is therefore generally perceived to be less reliable and authoritative than the main assessment report. This is primarily in response to what some see as a compromise during a negotiated process that sacrificed 'scientific rigour' for 'political expediency'

during the final stages of the intergovernmental consultation...The Summary for Decision Makers is widely regarded as a negotiated text in which some government representatives had a much stronger voice than others. Qualitative information confirmed...that the SDM content, in particular, was modified due to pressure from certain government delegations and questioned the role and effectiveness of UNEP as a neutral broker in this process.

Interviewees added their perspectives:

- "I think that it is good that countries meet and discuss what is important to highlight for the summary for the stakeholders. I think that is a wonderful process, although it is very difficult." (Ninni Lundblad interview)
- "The real attention comes at the Summary for Policy Makers point of formulation ...[when] governments try to ensure that there is no deviation from what [they] have already agreed to." (Peter Noel King interview)
- "When you have to negotiate anything line-by-line, that's not necessarily reflecting buy-in because that's not what you need, that's reflecting people being difficult.... It's not actually reflecting 'we've come along this journey, we agree with this.' It's more reflecting, 'oh no, my government's not going to be happy if it says this, so I'm going to change it.'" (Helen Mountford interview)
- "Allowing the technical team, the writers, to be present during the presentation to the member countries of the Executive Summary...for GEO-4...caused quite a furore among the team...It certainly made us feel that our scientific expertise was being glossed over in favour of political expediencies. And in the face of...bullying...we could really see how that was happening. I remember...other people including myself being really shocked and some withdrawing their names even from the list of authors...of the Executive Summary." (Jane Barr interview)

Other UN Organizations

The first decision on GEO (18/27C) requested that the report be prepared in close cooperation with other UN agencies and bodies, and this has always been the intention. While this was nothing new for UNEP as far as cooperating with such relevant bodies as United Nations Food and Agriculture Organization, United Nations Development Programme, United Nations Educational, Scientific and Cultural Organization, World Health Organization and World Meteorological Organization was concerned, GEO has, over time, almost certainly widened UNEP's engagement across the UN.

The participation of other UN entities in *GEO-1* was organized through the cooperative mechanism named UN System-wide Earthwatch, which was coordinated by UNEP from its Geneva office (Chapter 1). For this first GEO, UNEP established the closest links with the United Nations Department for Policy Coordination and Sustainable Development. In connection with this, there was a workshop attended by ten additional UN body representatives, with several contributing to activities of the first GEO Data Working Group.

The range and number of other UN entities that contributed to *GEO-2000* rose steeply and included staff from many environmental convention secretariats. More than 70 individuals from other UN bodies are named as contributors in the back of the report. In return for providing substantive data and information on issues within their individual mandates and helping to review drafts, they had the opportunity to highlight and gain visibility for some aspects of their own work that were relevant to topics covered in GEO. In *GEO-2000*, examples of this include sections summarizing the human development work of the United Nations Development Programme and the efforts of the United Nations Commission on Sustainable Development to develop indicators of sustainable development (UNEP, 1999g, pp. 15–16), the work of the World Health Organization on environment-human health linkages (UNEP, 1999g, pp. 34–36), and the projections of the United Nations Food and Agriculture Organization for cultivated land and deforestation (UNEP, 1999g, pp. 37–39). It also has a section focusing on ten major multilateral environmental agreements (UNEP, 1999g, pp. 199–205).

Despite these inclusions, the Evaluation and Oversight Unit of the United Nations Office in Nairobi concluded that involvement of other UN agencies in *GEO-2000* had been weak and recommended that in the future, “The GEO Unit should develop strong linkages with other UN agencies” and “ensure their full involvement in the process at an early stage” (Attere, 2000, p. 34). Klaus Töpfer, who was the UNEP Executive Director at the time of *GEO-2000* and *GEO-3*, remarked that other UN organizations were often more focused on selling themselves than in realizing that others could be very helpful partners (Klaus Töpfer interview).

This collaboration has continued through subsequent GEO processes. In *GEO-4*, 18 UN agencies were represented by 37 individuals, while 21 individuals from 11 agencies participated in *GEO-5*, and around 40 from 14 agencies in *GEO-6*. In addition, since *GEO-3*, the reports have included a foreword by the UN Secretary-General.

Going beyond GEO and UN organizations, there have been two initiatives to encourage greater interaction between those engaged in a wider range of global environmental assessments. In 2007–2008, for the first time, there was limited coordination between GEO and four other global environment-related assessments (Box 3.5.2).

Box 3.5.2: Coordination among global environment-related assessments: the cohort of 2008

The 2007–2008 coordination was triggered by comments from members of analytical teams who found themselves in demand by no less than five global assessments almost simultaneously. It was dubbed 'lightweight' to reflect that it was meant to be pragmatic and only at the level of project managers; in other words, not formalized or controlled by the respective oversight bodies. This cohort of assessments consisted of:

1. The fourth Climate Assessment report of the IPCC (IPCC, 2007b) and its Summary for Policy Makers (IPCC, 2007c)
2. The first International Assessment of Agricultural Knowledge, Science and Technology for Development, initiated by the World Bank and co-sponsored by the United Nations Food and Agriculture Organization, UNEP, the United Nations Development Programme, the World Health Organization, the United Nations Educational, Scientific and Cultural Organization and the Global Environmental Facility (IAASTD, 2009)
3. The fourth GEO led by UNEP (UNEP, 2007b)
4. Environmental Outlook to 2030 by the Organisation for Economic Co-operation and Development (OECD, 2008)
5. The Comprehensive Assessment of Water Management in Agriculture by the Consultative Group for International Agricultural Research, with the International Water Management Institute as lead institute (IWMI, 2007)

While all of these assessments had worldwide coverage, each had a specific focus or entry point and a different methodological approach. By coincidence, their planned publication dates were all in 2007–2008. The coordination served the following purposes:

- ▶ Mutual awareness of important moments in each other's calendar, such as the release of drafts;
- ▶ Identification of potentially contradictory signals, with the purpose of being able to answer any questions quickly and adequately; and

- Common alerts to key audience members, including reviewers, government contacts and the media. This was useful as each of the assessments typically had its primary contacts in different branches of government, and the contacts would not necessarily be aware of other upcoming reports with related coverage.

The coordination was found useful by the participants and required a minimum of resources, such as staff time. A contradiction between the draft assessments was only identified on one topic, namely energetic use of biomass. The Environmental Outlook of the Organisation for Economic Co-operation and Development expressed more reservations on this than the other assessments. A joint note was issued for the press, describing the upcoming assessments, their lead questions and approaches and alerting recipients to their mutual independence and coordination (UNEP et al., 2007). On the collaboration between different assessments, one interviewee noted, "I think it was both very useful and something that actually should have been continued and enhanced over time. This was a way of basically banding together and saying 'actually we have thoroughly looked at it across different institutions with different angles and we conclude this.'" (Helen Mountford interview)

A decade later, there has been a new initiative. The Adhoc [sic] Global Assessments Dialogue was first convened by UNEP's Chief Scientist in October 2018. The effort was reinforced by UNEA Resolution 4/23, which requested the Executive Director "to continue to promote greater coherence and coordination of global assessments undertaken within the United Nations system and in cooperation with relevant international bodies and the secretariats of the multilateral environmental agreements" (UNEP, 2019j, para. 10). Representatives of ten major global environmental assessments, including GEO, have continued their interaction to enhance synergy and explore further collaboration and opportunities for joint communication and outreach. Coordinated by the UNEP GEO Team, the process has recently prepared a UNEP Global Assessment Synthesis Report *Making Peace with Nature: a scientific blueprint to tackle the climate, biodiversity and pollution emergencies*. The report was launched in February 2021 by the UN Secretary-General and UNEP's Executive Director (UNEP, 2021f).

Peer Reviewers

In addition to the large number of experts engaged in global GEOs as authors, even larger numbers have individually or collectively undertaken other vital tasks. The most obvious of these is the peer review of chapter drafts. While numbers are not recorded in the early GEOs, *GEO-4* reportedly invited about 1000 experts to peer review the first draft and received more than 13,000 comments (UNEP, 2007b, p. 500). The *GEO-5* assessment underwent three rounds of review involving more than 300 experts (UNEP, 2012a, p. 491), and *GEO-6* underwent five rounds of review involving over 1000 experts and received more than 14,000 comments (UNEP, 2019e, p. 665).

GEOs-4 and *6* also appointed Review Editors to assess whether authors had adequately addressed the comments received, which was considered a positive addition. "It was very useful to have the [*GEO-6*] review editors who can make the bridge between the authors and the scientific communities... I think we are trying to fill the gap between GEO and IPCC ... because now we have the review editors" (Jacques-André Ndione interview). *GEO-5* set up a final independent review process facilitated by the Earth System Science Partnership whereby each chapter had three or four scientific reviewers with extensive experience in the subject area of that particular chapter (UNEP, 2012a, p. 491). In the three most recent GEOs, many of the reviewers were chosen from nominations received from governments and other stakeholders. These various measures were in line with the IPCC-ization of GEO to include a more rigorous peer-review process.

Advisory Groups

Expert and Advisory Groups have supported the global GEO process since *GEO-1*, with different arrangements evolving through the six processes (Chapter 7.3). For the first three GEOs, group members were identified, selected and invited to participate by the UNEP Secretariat. For *GEO-4*, as part of the IPCC-ization of the process, a high-level group was established for the first time and procedures were put in place for governments to nominate experts for this and other roles. Out of the 157 individuals nominated by 48 governments, some were selected to participate in the expert working groups, along with others chosen by the Secretariat. For *GEOs-5* and *-6*, it became standard practice for members of the advisory and expert groups to be initially nominated by governments and other stakeholders. Self-nominations were not accepted. Nominees were subsequently assigned to different roles by UNEP, with selection lists then sent to governments for final review.

GEO-6 had the most complex nomination process to date. It aimed “to identify the best available expertise representing a range of disciplines, and geographical and gender balance, with particular emphasis on ensuring full representation from developing-country experts” (UNEP, 2020b). For the High-Level Group, the Global Intergovernmental and Multi-stakeholder Consultation on the Sixth Global Environment Outlook held in Berlin in October 2014 made clear that governmental representatives must be nominated by their respective governments and would act in this capacity. The overall selection procedure for the High-Level Group was determined within the UN member state regional groups (UNEP, 2014c, p. 4). The selection process for the stakeholder representatives was overseen by UNEP’s Major Groups and Stakeholders Branch (UNEP, 2019e, p. 669). Members of the other two *GEO-6* advisory groups were likewise selected through a nomination process of regional and global experts. Once established, the Scientific Advisory Panel was supported by UNEP’s Chief Scientist’s Office (UNEP, 2020e), while the Assessment Methodologies, Data and Information Working Group was supported by the UNEP Live team (UNEP, 2020a).

Production and Publication Teams

Significant publications going to a broad user community require professional editors, skilled production teams and highly competent translators – especially when the publication is the organization’s flagship report. The teams selected by UNEP to prepare the GEOs for publication have often been involved in the process well in advance of the final production stages. As a result, the editing and publication contractors have been able to provide useful guidance as drafts were prepared and were already familiar with much of the content before it was handed over to them.

GEO-1 had the smallest production team, with the responsibility being taken on by two collaborating centres – the World Resources Institute in the USA and the National Institute of Public Health and the Environment in The Netherlands, along with an independent editor who provided editorial assistance. After *GEO-1*, the production teams became more diversified. In addition to a professional editor or a small editorial team, specialists in design and layout, maps and photos, and graphics and data compilation have been co-opted from within the UNEP Secretariat or hired.

As its flagship report, UNEP intends to publish GEO in all six official UN languages (Chapter 4.2). However, translating the global GEOs has always been a challenge. In addition to the time and costs involved (Chapter 7.9), it can be quite difficult to find translators who are familiar enough with

the environmental jargon that unavoidably appears in the reports. Fortunately, being a multinational organization, UNEP has established a good network of competent translators over the years; when funds have been available other language versions of GEO have been published (Table 4.2.1).

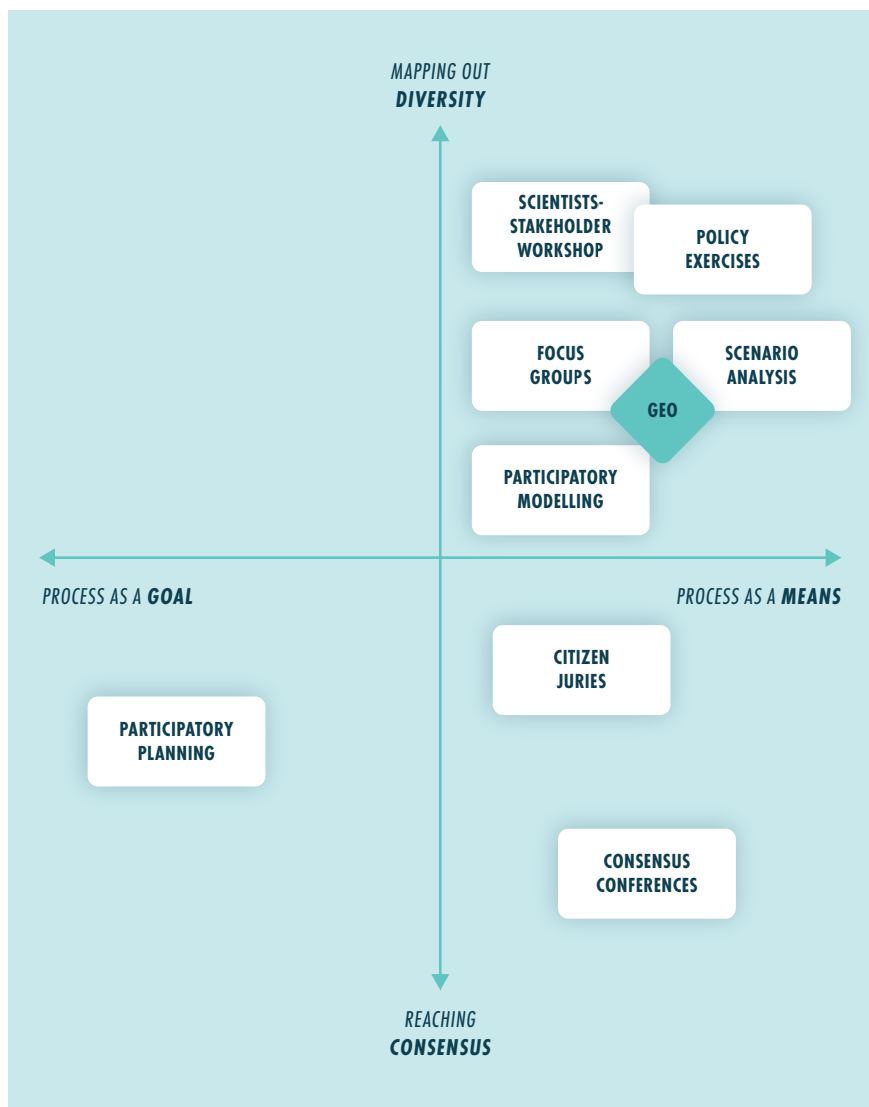
3.6 Conclusion

Addressing the complexity and diversity of issues and interests in integrated environmental assessments often goes beyond the capacity of an individual organization, and that has certainly been true for UNEP and its GEO process. The challenge increases with the spatial scale and reaches its maximum at the global but regionally differentiated assessments, with GEO close to the top. Using the classification approach developed by van Asselt and Rijkens-Klomp (2002), GEO falls in a category of integrated assessments that use the participatory process more as a means to enrich assessment and decision-making, as opposed to using it as a goal to organize the decision-making process. Along the other axis, GEO mainly aims at mapping out diversity and trying to reach consensus only in the Summary for Policy Makers (Figure 3.6.1).

This chapter has explored the wide range of roles and responsibilities undertaken by a large mix of participants – governing bodies; international organizations; national and specialized institutions; and hundreds of individual scientists, policy specialists, and other experts – in global GEO reports since the mid-1990s. The general trend towards involving more persons and institutions over time is unmistakable. Collaboration among the various entities has occasionally been fractious, but it has proved to be essential for delivering the outputs requested.

The evolution of GEO politics, particularly in response to the IPCC-ization of the process, has had significant implications for the composition and involvement of the respective participant groups since 1995. Different individuals and entities have moved in and out of the limelight as the process has evolved. Some of the process changes, such as the introduction of GEO Fellows, have been straightforward and very positive. Others have been difficult to manage, such as the introduction of the negotiated SDM process, and the jury is still out on whether these were a good idea in the first place. Taken as a whole, the changes that have occurred provide a broad range of lessons to be learned for any future GEOs.

Figure 3.6.1. Situating GEO among integrated assessments based on the goal of participation



GEO uses the assessment process as a means and mainly for mapping out diversity. Consensus writing only applies to the SPM.

Source: modified after van Asselt and Rijkens-Klomp, 2002

