Concluding Remarks

This book on the Global Environment Outlook (GEO) took the reader on a journey through the broad GEO landscape that has developed since the early 1990s. Our overall goal has been to document both the history of the process (or more correctly "processes," since these have been manifold) and the vast array of products that have resulted and that could continue to result from it. Collectively, these processes and products represent a significant mark on the practice of integrated environmental assessment and reporting that peaked during the first decade of the new Millennium. What we refer to as the "IPCC-ization" of the global process that began with *GEO-4*, has led to the most recent GEOs being prepared in a very different way than the earlier GEOs. These changes in GEO involved significant tradeoffs. While GEO's institutional setup and engagement with science became more aligned with the approach of other global assessments, its ability to influence the broader community of practice of integrated environmental assessment has taken a back seat. While it is not our intention to judge the GEOs' relative quality or overall merit of the methods chosen, there are lessons to be learned in terms of the different paths taken.

The main take-away messages from this book are as follows:

A. GEO is as much a process as it is a set of reports. All current respected global assessments on environment and sustainable development now usefully adhere to this, whereas GEO invented it. The GEO way of doing a global assessment - process and product - has constantly undergone evolution but, in retrospect, GEO's essential formula has been remarkably consistent:

1. Covering a broad spectrum of issues, including socio-economic aspects, GEO looks at environment and development as a whole. It identifies issues at this interface that would not emerge from thematically-focused assessments, and thus offers integrated analysis grounded in a systems view of the environment.
2. Combining regional as well as global perspectives throughout. With cross-scale perspectives also in mind, global environmental issues are framed in a regional context and vice versa.
3. Employing an assessment process that is both collaborative and participatory through a dynamically evolving network of participating individuals and institutions.
4. Using an approach designed to be science-based and policy-relevant, with a process and conceptual framework that balance consistency with flexibility.
5. Incorporating three time dimensions to enable learning from the past, understanding the present and looking into the future.
6. Including an assessment of policies, without being "policy-prescriptive."
7. "Learning-by-doing," in which there is always an element of experimentation and capacity building. Such an approach is needed even more in today's constantly changing landscape of science, policy and socio-economic issues and crises as related to environment and sustainable development.

B. The Global Environment Outlook has been a major success in terms of emulation and influence. GEO is perhaps best known for its signature global reports on the state and trends of the global environment. These, however, are only the tip of the iceberg. From establishing a globally coordinated but regionally engaged process, GEO became an assessment *system*: its methods, practices and brand have been adopted at other

geographic levels worldwide. In terms of richness of processes and reports, its most prolific period stretched from the late 1990s to the early 2010s. And if being mimicked is an indicator of impact, *GEO has a superb record*. Research for this book identified over 250 'GEOs' and GEO-inspired assessment initiatives linked directly or indirectly to the global process. These assessments aimed at establishing a firm factual basis *plus* enhancing local and national environment-related policies *plus* strengthening foresight in policy-making. This treasure trove of GEOs and GEO-inspired reports is thoroughly documented in Annex IV of this book.

C. GEO has achieved a diverse set of outcomes, influences and impacts. In broad terms, this book has identified three interconnected types of influences from the GEO process:

- The GEO model has been adopted in many instances and often with great autonomy, and has been a trailblazer for other high-profile assessments that considered the environment in a wide systemic framework.
- A contribution to enhanced capacity for conducting integrated environmental assessment (IEA) and for related policymaking. Although characterized by discontinuities, a community of practice in IEA was effectively fostered by UNEP from the late 1990s until the switch to the IPCC model after *GEO-4*.
- A strengthening of the treatment of linkages between environment, development and systems thinking in higher education, through process and content uptake by academia and their inclusion in university curricula. This is a spin-off impact, not a planned one, though with significant future potential.

Exploring influence of the global GEOs in particular (through their evaluation reports, among other things), the authors identified the following modalities:

- awareness raising (through mass media as well as scientific journals);
- agenda setting at global, regional, national and institutional levels;
- political and policy discourse (revealing alternative policy opportunities);
- proposal of potential solutions before they gained traction or became popular with a broad segment of the world's population, such as shifting to a lower-meat diet;

- consensus building (reducing the risks of political decision-making and action); and
- guidance for global compacts and resolutions (the SDGs, Rio+20).

D. Over its nearly 30 years of existence, GEO has seen important changes in information needs and policy context. Most importantly, the focus on environment assessment has shifted from issue framing and agenda setting to options for action. While policy options and an estimate of their potential effects were included as early as the very first GEO, a structured overview of local policy initiatives and how they played out was one key innovation of *GEO-6*.

E. Given the risks and uncertainties in environmental and sustainability challenges, assessments must have the ability to learn and evolve. Learning requires remembering, and little memory seems to be built into the current system of GEO. In addition, the remaining memory of the experiences with earlier GEOs is fading fast. The lack of institutional memory has been exacerbated by the inevitable turnover of UNEP staff as well as the same at many contributing institutions. While it was somewhat of an incidental benefit, the importance of creating and maintaining IEA capacity was recognized and built into the network of collaborating centres, and in all likelihood would have continued to work well over time. UNEP's current lack of documentation on GEO's ongoing evolution, including its methods, outputs and achievements, is regrettable, although there are recent signs of improvement in this area, with an increasing number of past GEO documents being added to the 'wedocs' website. After all, GEO and other UNEP-managed systems are meant to underpin processes to address changes at a planetary scale, and an ability to learn from what was previously done remains critical. This process weakness seems difficult to justify *vis-à-vis* donors, participants and indeed UNEP's main clients and constituents, governments themselves. Moreover, the lack of transparency, openness and loss of institutional memory could prove to be a large handicap in securing stable financing for future GEOs.

F. Among all the changes to GEO over the years, one in particular remains controversial. Nicknamed the "IPCC-ization" of GEO, the change occurred during GEO-4 and altered the process in three ways: the introduction of a global consultation at the beginning of each GEO cycle; a new process for the nomination and selection of experts to participate in GEO; and a nego-

tiated summary for policy makers. The first of these is non-controversial, as the global consultation formalizes government involvement. But with the "IPCC-ization," the wide network of collaborating centres that had in large part prepared earlier GEOs under the guidance and coordination of the UNEP Secretariat was sidelined and all but disappeared. Instead, a new procedure was developed whereby governments and other stakeholders nominate individual experts, who are then selected to undertake various roles in the process. Also, from *GEO-4* onward, the summary for policy makers became subject to line-by-line negotiation and approval *by* policy-makers.

Views differ on the negotiated summary for policy makers: on the one hand, this new approach creates a specific moment to acknowledge the strength of evidence underlying GEO statements and potentially greater environmental consensus at a global level. It also gives governments a more active role and ownership of key messages. On the other hand, the negotiation of summaries for policy makers is seen as a potentially misplaced ritual that only serves to remove elements that are considered politically sensitive, but not increase policy relevance. In this view, it carries the risk of sanitizing GEO of findings that, while well supported from the scientific perspective, may be seen as "inconvenient truths" for others.

G. The future of GEO is reflected on in this book. The principal question is, will GEO or more generally, comprehensive global environmental assessment, still have a useful role and be worth all of the effort involved? While the Future of GEO process and UNEA-5's resolution on GEO has given its answer, more detailed design work on GEO is just about to start that will influence the way we think about the environment at a critical moment in human history.

It is clear that due to the increasingly complex and interconnected environmental scene, thematic assessments alone will not suffice. In addition to assessments focused on climate change and energy, biodiversity and ecosystems, the circular economy or water, there is a place and an urgent need for drawing these perspectives together, as some of the most significant issues, problems and solutions may emerge at their interface.

For a redesigned GEO to become effective in the complex assessment landscape of the 2020s, some successful techniques from GEO's history could be reactivated. These could include, for example, GEO serving as a "chapeau" for knowledge gained from more focused thematic assessments; a revival of the light-footed coordination among various global

assessments that functioned well in the mid-2000s; re-establishment of a flexible but sustainable network of collaborating institutions that would enable GEO to maintain awareness of regional issues in environment and development; as well as bringing knowledge gaps to the attention of the research community and potential funders. In addition, information technology would allow for much greater outreach than when GEO began in the 1990s. These are all potential starting points for redesigning GEO in the 2020s.

H. The practical, productive lessons from nearly 30 years of the Global Environment Outlook are particularly useful in light of the UNEA decision to continue GEO and the related intention to put it on a more stable institutional and financial footing. The real issue is not GEO's future, but ultimately, the sustainability of our planet. In this sense alone, the authors believe that an ongoing process for integrated assessment of the environment remains vital. Thirty years after the development of GEO began, and twenty-five years after the first edition was published, there is no shortage of literature on how to do a global (or other geographic level) environment outlook. But the authors find the story of the Global Environment Outlook and its approach particularly appealing and instructive, as well as encouraging, for similar efforts that may be undertaken now and in the future.