



## The GEO-6 Process



*“We all share one planet and are one humanity;  
there is no escaping this reality.”*

*Wangari Maathai (1940-2011), Nobel Laureate*



## Objectives, Scope and Process

The Mandate for the sixth Global Environment Outlook was obtained from Member States at the first UN Environment Assembly (resolution 1/4, operative paragraph 8). More information on this mandate can be found in Annex 1-1 of this report. The objectives, scope and process for GEO-6 were defined and adopted in a Final Statement by the Global Intergovernmental and Multi-Stakeholder Consultation that took place in October 2014. It was attended by more than 133 delegates with more than 100 governments represented.

### Objectives

The consultation reaffirmed the UNEA-1 mandate by identifying the following objectives for the assessment:

- ❖ provide a comprehensive, integrated and scientifically credible global environmental assessment to support decision-making processes at appropriate levels;
- ❖ facilitate broader participation by major groups and stakeholders, in particular from the private sector and NGOs and to increase outreach to target audiences;
- ❖ The analysis should draw on diverse knowledge systems, including by using accepted guidelines for the use of peer reviewed scientific literature, grey literature, data and indigenous and local knowledge;
- ❖ A clear process and organizational structure is needed to ensure credibility, legitimacy and relevance;
- ❖ "The assessment should build on and be consistent with previous GEOs, as well as the work of other relevant intergovernmental organizations and processes, including Multilateral Environmental Agreements, in order to maintain its branding and role in keeping the environmental situation under review";<sup>1</sup>
- ❖ inform, as appropriate, the strategic directions of UNEP and other relevant UN bodies;
- ❖ strengthen the policy relevance of GEO-6 by including an analysis of case studies of policy options, that incorporates environmental, economic, social and scientific data and information and their indicative costs and benefits to identify promising policy options to speed up achievement of the internationally agreed goals such as the Sustainable Development Goals and other multilateral environmental agreements;
- ❖ identify data gaps in the thematic issues considered by GEO-6.

### Scope

GEO-6 builds on previous GEO reports and continues to provide an analysis of the state of the global environment, the global, regional and national policy response as well as the outlook for the foreseeable future. It differs from previous GEO reports in its emphasis on Sustainable Development Goals and in providing possible means of accelerating achievement of these goals. GEO-6 is made up of four distinct but closely linked parts.

- ❖ **Part A** assesses the state of the global environment in relation to key internationally agreed goals such as the

Sustainable Development Goals and those of various multilateral environmental agreements. The assessment is based on national, regional and global analyses and datasets.

- ❖ **Part B** provides an analysis of the effectiveness of the policy response to these environmental challenges as well as an analysis of progress towards achieving specific environmental goals.
- ❖ **Part C** reviews the scenarios literature and assesses pathways towards achieving Agenda 2030 as well as achieving a truly sustainable world in 2050.
- ❖ **Part D** identifies future data and knowledge necessary to improve our ability to assess environmental impacts and pathways for achieving sustainability.

The GEO-6 also considers key policy questions. These include:

- ❖ What are the primary drivers of environmental change?
- ❖ What is the current state of the environment and why?
- ❖ How successful have we been in achieving our internationally agreed environmental goals?
- ❖ Have there been successful environmental policies?
- ❖ What are the policy lessons learned and possible solutions?
- ❖ Is the current policy response enough?
- ❖ What are the business as usual scenarios and what does a sustainable future look like?
- ❖ What are the emerging issues and megatrends including their possible impacts?
- ❖ What are the possible pathways to achieving Agenda 2030 and other internationally agreed environmental goals?

### Process

The October 2014 consultation also provided direction for strengthening the process of the GEO-6 assessment, including:

- ❖ The assessment process shall be supported by two main advisory bodies: the High-level Intergovernmental and Stakeholder Advisory Group (HLG) and the Scientific Advisory Panel (SAP);
- ❖ Advice shall also be obtained from an Assessment Methodologies, Data and Information Working Group;
- ❖ Other GEO-6 roles would include: Coordinating Lead Authors (CLAs); Lead Authors; up to 20 GEO-6 Fellows and Coordinators; global experts; regional experts; community of practice moderators; review editors; and reviewers;
- ❖ the CLAs will provide technical summaries of the GEO 6 and prepare the negotiating drafts of the Summary for Policymakers in close collaboration with and under the leadership of the HLG, ensuring that the technical aspects of GEO-6 are reflected in the draft. The SPM would be negotiated at a dedicated intergovernmental and stakeholder meeting;
- ❖ Relevant MEAs, international organizations and scientific institutions will be invited to actively contribute to the GEO-6 process.
- ❖ The GEO-6 will ensure scientific credibility, policy relevance and legitimacy of the assessment by engaging a wide range of stakeholders;
- ❖ The assessment will be subjected to extensive scientific expert peer review and government review;

<sup>1</sup> Outcomes document of the Intergovernmental and Multi-stakeholder consultation, 21-23 October, 2014, Berlin, Germany. The full text of the Outcomes document can be found in the Appendix to this section.



- ❖ The assessment process will continue to target institutional capacity building by engaging developing country experts;
- ❖ The assessment should strive to communicate key messages and findings to target audiences in an accessible manner.

## TIMELINE

The sixth Global Environment Outlook process was characterized by 4 larger authors meetings, two smaller drafting meetings on Outlooks and Policy, as well as face to face meetings of the advisory bodies, Review Editors and Member States. The meeting and drafting schedule followed 3 basic principles established by the advisory bodies:

- ❖ There should be coherence across the different Parts of GEO-6 and the 12 cross-cutting issues should be drafted in tandem with the assessment of the 5 environmental themes.
- ❖ There should be opportunities for robust interaction between the authors and the advisory bodies to ensure both policy relevance and scientific integrity are maintained throughout the process.
- ❖ The author teams should be kept small since the regional assessments contain much of the information that is needed in the global assessment and they should form the foundation of the global assessment.

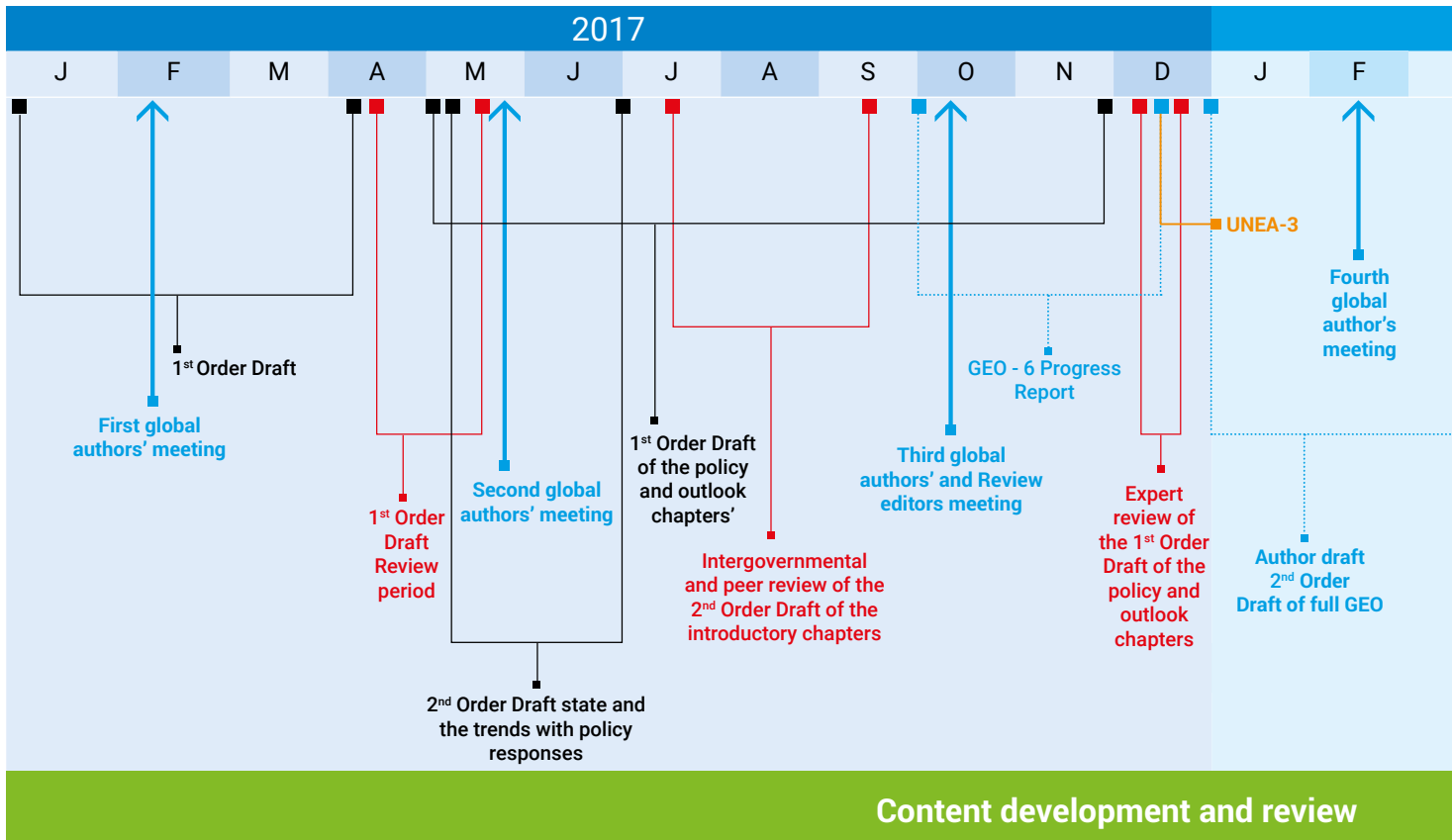
To ensure robust interaction with the advisory bodies, 3 of the 4 larger authors meetings had participation from the High-level Group and the Scientific Advisory Panel. To ensure coherence

across the assessment, the larger meetings were used to allow for 'speed dating' between the thematic chapter authors and the cross-cutting issue authors. This 'speed dating' allowed for 1 hour of discussion between the authors teams where issues were discussed and writing assignments given. To ensure that the author teams were kept small, a core of coordinating lead authors were first selected into the process and then skills gaps were identified. From the skills gap analysis, invitations were sent to lead authors to complement the drafting of the chapters.

As the work programme evolved it became clear that additional authors meetings for the Policy and Outlooks chapters would be needed. The Secretariat proceeded to organize these during the months of May and June, 2018. In addition, the Scientific Advisory Panel requested to meet one last time in order to formulate their opinion on the scientific credibility of the GEO process. This meeting was organized back-to-back with the final Review Editors meeting in October, 2018. This allowed for the two groups to share information about the peer review processes and their overall rigour.

The drafting meeting for the Summary for Policymakers involved the High-level Group, Coordinating Lead Authors as well as the Co-chairs of the assessment. The Co-chairs of the Scientific Advisory Panel also participated as observers and provided some of their experience with drafting of Summaries in other assessment processes.

The final meeting of the GEO process was the meeting of Member States to finalize and adopt the Summary for Policymakers. This meeting was held at UN Environment headquarters which allowed for a broad participation of





Member States. The 4-day meeting sought to review the text of the Summary and make changes that would allow for its adoption by all Member States present. The final adopted document was submitted to the fourth UN Environment Assembly for endorsement.

## PARTNERSHIPS AND COLLABORATION

The development of GEO-6 involved extensive collaboration both within UN Environment and between UN Environment and a network of multidisciplinary experts and research institutions, all of whom made their valuable time and knowledge available to the process.

The consultation requested that experts for content development, including reviewers and advisory groups, be nominated by governments and other main stakeholders based on their expertise and using a transparent nomination process. The nominated experts were then convened by the UN Environment Secretariat based on their expertise with due consideration of gender and regional balance.

### Chapter expert groups

The GEO-6 report contains 25 chapters. An expert author group was established for each chapter to conceptualize, research, draft, revise and finalize each chapter. More than 150 authors and fellows were involved in content development. Each chapter expert was under the leadership of three or four coordinating lead authors and supported by a UN Environment chapter coordinator. Other members of the chapter expert groups comprised lead authors and contributing authors.

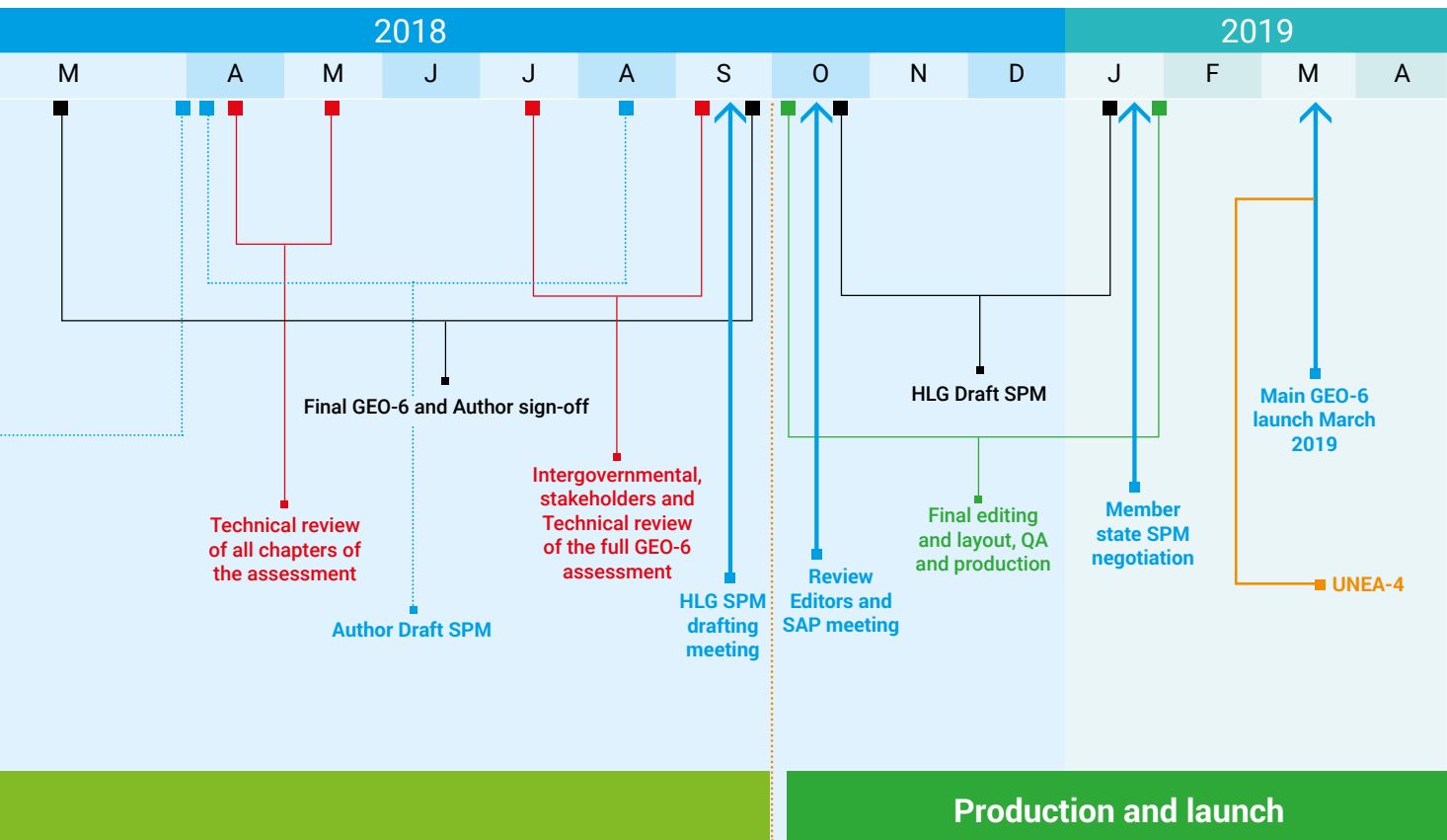
## GEO-6 fellows

GEO-6 continued to pursue the Fellowship initiative established during the GEO-4 process in 2005. This engages early career professionals in the GEO process so that they can gain experience from participating in a major global environmental assessment. A total of 27 fellows from 15 countries participated in GEO-6.

## REVIEW PROCESS

The GEO-6 assessment underwent five rounds of review involving more than 1000 experts. In total the GEO-6 assessment was reviewed five times at different stages of its development and the process yielded more than 14,000 comments. Due to this process, the draft chapters have been re-written, adjusted and edited to improve the quality while the drafting process has been adjusted to improve its effectiveness.

The first nine introductory chapters of the assessment: introduction, drivers of environmental change, state of our data and knowledge, the crosscutting chapter as well as the state of the global environment, across 5 main thematic areas: air, biodiversity, oceans, land and freshwater were reviewed earlier in the process than the policy and outlooks chapters. At the end of the review process all chapters were provided for review by technical experts then for a longer intergovernmental and expert review. For the final review the chapters were provided as individual chapters (25 chapters separately) and as a complete assessment report (all chapters as a single document). This offered reviewers an opportunity to either





review specific chapters that were directly related to their areas of expertise or review the whole assessment report to comment on the report's coherence.

For all review periods the secretariat offered a 'service desk' where all reviewers with questions or concerns were supported in this task. Virtual meetings were organized for all reviewers coordinated by the secretariat to first orient the review team before the start of the review process and then to check on progress as well as answer questions. These virtual meetings were conducted by the secretariat with support from the lead review editors, who listened in and provided advice on any issues. The preparatory review material/tools were discussed during these meetings with the concentration being on the reviewer's guidelines. Terms of reference for the reviewers were developed and updated for each review period, including the ethical responsibilities of GEO-6 Reviewers. During the review period the secretariat conducted follow-up calls for all available reviewers to assess the progress and review important deadlines. All review call recordings were shared with the whole review team to ensure that other reviewers were aware of the tasks and the plan for moving forward.

## **GEO-6 ADVISORY BODIES**

Three external specialized advisory bodies were established to support the assessment process.

### **High-Level Intergovernmental and Stakeholder Advisory Group**

The panel included 33 high-level government representatives from all six UN Environment regions as well as 8-10 key stakeholders. The High-level Group assessed and formulated strategic advice to GEO-6 authors and other groups to assist them in their assessment work. They also provided initial guidance on the structure and content of the GEO-6 Summary for Policymakers and further guidance to the experts in finalizing the draft Summary, in preparation for the final intergovernmental negotiation. In addition, ad-hoc guidance was provided to UN Environment throughout the assessment process to align the GEO-6 process with other relevant global assessments. The High-level Group met face-to-face seven times between 2015 and 2018. The Advisory Group also met virtually on a monthly basis throughout the preparation of the global assessment, from May 2016 to September 2018.

### **Science Advisory Panel**

The Panel included 22 distinguished scientists who met face-to-face five times. The Panel was responsible for providing advice on the scientific credibility of the assessment process. The Panel provided scientific advice; standards and guidelines for the assessment and review process; and reviewed the findings of the mid-term evaluation of the assessment process. The Panel met virtually on a monthly basis throughout the preparation of the global assessment, from June 2016 to October 2018.

### **Assessment Methodologies, Data and Information Working Group**

The working group comprised of 12 professionals who met face-to-face three times between 2015 and 2018 and provided support to the assessment process and provide guidance on the use of core datasets and indicators. They consulted with experts to review the methods used in GEO-6, identify priority environmental indicators as well as data gaps and related issues. The Working Group met virtually as needed throughout the process.

## **CONSULTATION PROCESS**

UNEP organized panel discussions at all authors meetings throughout the assessment process. These panel discussions were intended to delve into specific environmental issues that were relevant to the region and location of the meeting. The following are some of the key meetings convened since the inception of the GEO-6 process.

### **GEO-6 planning meetings**

Two planning meetings were convened with the High-level Group and the Scientific Advisory Panel May and June 2016. The meetings produced a final annotated outline for the global assessment and a list of recommended co-chairs and coordinating lead authors.

### **Global Intergovernmental and Multi-stakeholder Consultation**

This consultation defined and adopted the scope, objectives and process for GEO-6 in October 2014. Participants at the Intergovernmental and Multi-Stakeholder Consultation concluded that GEO-6 would be an integrated environmental assessment using the Drivers – Pressures – State – Impacts – Response (DPSIR) approach. The report would build on regional assessments and include an inter-governmentally negotiated Summary for Policymakers. The analysis would aim to present findings and deliver products to targeted audiences including decision makers, across the public and private sectors, such as businesses and the youth.

### **Outlooks expert meeting**

In May 2018, an outlooks expert group, was convened to move the policy chapters to third order draft quality by addressing all comments from the science editors, as well as comments received from the second order draft technical review period.

### **Policy expert meeting**

In June 2018, a policy expert group, was convened to move the policy chapters to third order draft quality by addressing all comments from the science editors, as well as comments received from the second order draft technical review period.



### **Global authors' meetings**

Four global production and authors' meetings were convened in February 2017, May 2017, October 2017 and in February 2018 to discuss and develop GEO-6-chapter content and outlines, to address review comments, and to harmonize different approaches and presentation styles.

### **Chapter working group meetings**

Hundreds of virtual chapter meetings were convened to prepare, review and revise the drafts for individual chapters.

### **Summary for Policymakers intergovernmental meeting**

A final open-ended intergovernmental meeting was convened from January 21-24, 2019 in Nairobi, Kenya to negotiate and adopt the GEO-6 Summary for Policymakers (SPM). The

meeting attended by 95 Governments adopted the summary, which presents the policy-relevant findings of GEO-6 and is published as a separate document. The GEO-6 Summary for Policymakers was presented to the fourth UN Environment Assembly for endorsement.

The launch of GEO-6 will coincide with the fourth United Nations Environmental Assembly. GEO-6 highlights the current state, trends and outlook for the planet and its people, and showcases more than 35 case studies of policies that have been assessed for their effectiveness.

GEO-6 highlights not just the perils of delaying action, but the options for transforming our economic, environmental and social systems to achieve a truly sustainable world.

Further information is available at <https://www.unenvironment.org/global-environment-outlook>



## Appendix

Statement by the Global Intergovernmental and Multi-stakeholder Consultation on the Sixth Global Environment Outlook held in Berlin from 21 – 23 October 2014

### UNEP/IGMC.2 Rev.2

#### Strengthening the Science Policy Interface:

#### Building the Evidence Base for the Post-2015 Agenda

23 October 2014

#### Organisation of work

The Global Intergovernmental Multi-stakeholder Consultation (IGMS) met in Berlin from 21-23 October 2014. It was attended by 133 delegates, with more than 100 governments represented.

The meeting was opened by Achim Steiner, Executive Director of UNEP.

The election of officials followed. Idunn Eidheim (Norway) and Dr. Majid Shafie-Pour (Iran) were elected Co-Chairs. Dr. Peter Denton (Major Groups and Stakeholders) was elected Rapporteur.

#### Background

Reference was made to the Rio+20 outcome document, earlier Governing Council decisions, and specifically to UNEA Resolutions 4 and 10.

The Secretariat presented the recommendations of the independent evaluation of GEO-5 which stated the need to:

*“(1) facilitate stakeholder engagement; (2) enhance capacity building; (3) increase the use of grey literature and indigenous knowledge; (4) promote relevance at all scales; (5) increase developing country participation; (6) facilitate access to information; (7) use results based management and evidence for evaluations; and (8) improve financial planning and funding.”*

Participants at the IGMS noted the findings of the evaluation and expressed the need to facilitate broader participation by major groups and stakeholders, in particular from the private sector and NGOs and to increase outreach to target audiences. The analysis should draw on diverse knowledge systems, including by using accepted guidelines for the use of peer reviewed scientific literature, grey literature, data and indigenous and local knowledge. A clear process and organizational structure is needed to ensure credibility, legitimacy and relevance. The assessment should build on and be consistent with previous GEOs, as well as the work of other relevant intergovernmental organizations and processes including such as MEAs, in order to maintain its branding and role in keeping the environmental situation under review.

Under Agenda Item Four, the meeting participants discussed options and timing for GEO-6.

#### Structure for the content of GEO-6

Participants at the IGMS supported that GEO-6 would be an integrated environmental assessment, using the Drivers – Pressures – State – Impacts – Response (DPSIR) approach in the GEO conceptual framework. The Report will build on regional assessments and include an inter-governmentally negotiated Summary for Policymakers. The analysis will aim at presenting findings and delivering products to targeted audiences among decision makers, across the public and private sectors at global to local levels.

GEO-6 will reflect three broad, analytical components.

#### Global Environment: State and Trends

The first component will include an analysis of the environmental state and trends for air, biota, land and water and their multiple contributions to environment and human well-being. This will be achieved through an analysis of interactions with cross-cutting issues such as climate change; environmental disasters; food; energy; human health; economic development; resource use; chemicals and waste; and culture and society, and relevant policies.

#### Environmental Policies, Goals and Objectives: A Review of Policy Responses and Options

The second component will provide a policy analysis of the links between the state and trends in the environment and global and regional environmental goals and objectives, including those reflected in national policy responses, and an assessment of progress towards them.

#### Global Environment Outlook

The third component will be comprised of an integrated analysis of megatrends and environmental change, and refer to the outputs of modeling, scenarios and regional outlooks. The analysis will take into account the Global Sustainable Development Report and provide support to the environmental components of the post-2015 agenda.

#### Timing of GEO-6

Participants expressed broad support for the following delivery dates: GEO-6 regional assessments to be delivered by early 2016 and the complete GEO-6 including its Summary for Policymakers to be delivered not later than 2018, at an appropriate event to be determined in consultation between UNEP and governments. Regional assessments will be undertaken during 2015. The Executive Director of UNEP will report on progress to UNEA 2 in 2016.

#### Process and operational structure of GEO-6

Participants also voiced support for the establishment of two advisory bodies: the High-level Intergovernmental and Stakeholder Advisory Group (HLG) and the Scientific Advisory Panel (SAP). There will also be an Assessment Methodologies, Data and Information Working Group. The HLG will include five representatives from each UN region, plus five representatives from the Major Groups and Stakeholders. The SAP will be comprised of three representatives from each UNEP region,





plus up to six global experts. The Assessment Methodologies, Data and Information Working Group will be comprised of three representatives from each UNEP region, plus up to six global experts. Participants expressed a wish to include individuals with indigenous and local knowledge.

Other GEO-6 roles would include: Coordinating Lead Authors (CLAs); Lead Authors; up to 20 GEO-6 Fellows; Global Experts; Regional Experts; Community of Practice Moderators; Review Editors; and Reviewers.

The participants discussed the terms of reference for the operational structure as set out in the Annex 1.

Based on practice from earlier GEOs and other international scientific assessments, the CLAs will provide technical summaries of the GEO 6 and preparing the negotiating drafts of the Summary for Policymakers in close collaboration with and under the leadership of the HLG, ensuring that the technical aspects of GEO-6 are reflected in the draft. The SPM would be negotiated at a dedicated intergovernmental and stakeholder meeting.

It was noted that UNEP Live will be used by the Secretariat to enhance capacity development and to support GEO-6 by providing the platform for the GEO-6 Communities of Practice and the Nominations Portal. UNEP Live will also support the global and regional analyses through relevant data collection related to *inter alia* UNSEEA and indicator development; encouraging sharing and access to national data and information; linking to peer-reviewed literature from various language domains; providing access to indigenous and local knowledge and information drawn from attributable, public sources. Information should also be provided on the benefits of UNEP Live for countries; the roles of MEAs in UNEP Live and on the UNEP Live programme of work.

Support was given for the GEO-6 to use Communities of Practice to encourage sharing of knowledge amongst the various groups, increase stakeholder engagement and support capacity development. CoPs will be established for the major areas of GEO-6 and regional assessments. Capacity development would be supported through the fellowship programme, the implementation of national reporting systems, along with participation in regional environmental information networks and regional assessments.

Relevant MEAs, international organizations and scientific institutions will be invited to actively contribute to the GEO-6 process.

Support was given for the multi-stage peer review, based on the following principles. First the best possible scientific and technical advice should be included to ensure that the assessment represents the latest scientific, technical and socioeconomic findings and is as comprehensive as possible. Second, a broad circulation process ensuring representation of experts not involved in the preparation of the parts they are reviewing, with particular emphasis on involving as many experts from developing countries as possible. Third, the peer-review by governments will include both technical and policy aspects with due respect to the independence of the reviewers. Finally, the multi-stage review process to be balanced, open and transparent. Conflicts of interest will be identified through a process based on those used by IPBES and IPCC.

#### **Nomination process**

Participants emphasized the need for an open and transparent nomination process for all the GEO-6 roles, using the GEO-6 Nominations Portal in UNEP Live. The experts will be nominated using the criteria outlined in Annex II, and be selected by UNEP in a transparent manner with due consideration of the need to ensure geographic, disciplinary and gender balance. The nomination period will run until January 31, 2015. The selection process will be completed by the end of February 28, 2015. Late nominations will be accepted under mitigating circumstances. The selected experts and nominees for the advisory bodies will be sent to governments for review. The list of selected experts will be published on-line.

Governmental representatives for the HLG must be nominated by their respective governments and will act in this capacity. The selection process for the stakeholder representatives will be overseen by the UNEP Major Groups and Stakeholders Branch. The selection procedure for the HLG will be determined within the UN regional groups.

The nomination process will be initiated by a letter from the Secretariat to be sent to governments and Major Groups and Stakeholders. This correspondence will be in the relevant UN language and append details of the GEO-6 processes, including remuneration of experts and a GEO-6 timetable.