Outcomes Document of the fourth authors meeting of the Global Environment Outlook—Singapore, February 19 - 23, 2018

Authors, co-chairs and vice-chairs met in Singapore to advance the drafting of several elements of the sixth Global Environment Outlook, including:

1. Begin drafting of the Summary for Policy Makers and the Technical Summary
2. Address questions of coherence across the documents;
3. Move the Policy Effectiveness chapters towards second order draft quality, by:
   • Improving coherence of chapter text
   • Reducing overlap and duplication in the coverage of issues
   • Ensuring adequate coverage of each thematic and cross-cutting issue.
4. Move the Outlooks chapters towards second order draft quality by:
   • completing the scenario/outlook review chapter
   • advancing the methodology and conclusions chapters
   • completing the 'seeds' chapter.
5. Gather more data for the innovative Outlooks component with a stakeholder workshop.
6. Advance the drafting of the cross-cutting issues and 'common threads' throughout the whole assessment (including health, the economic and equity dimensions, including gender).
7. Conduct the fourth High-Level Panel Discussion as a core activity in the broader Global Environment Outlook outreach strategy.
8. Conduct a side event on the Global Environment Outlook derivative product GEO for Cities

On these issues the authors, co-chairs, vice-chairs and authors decided:

• The drafts of all 25 chapters will be prepared by April 11, 2018 in time for the one-month technical review period. These chapters will include third-order drafts of the first 9 chapters of the assessment and second-order drafts of the Policy and Outlooks chapters;
• Authors will work to extract an Executive Summary of key findings for the front of each of their chapters. This Executive Summary will include 10-12 key findings from
each chapter which will be used to construct the Technical Summary text and the authors draft of the Summary for Policy Makers;

- The preparation of the Technical Summary, led by the co-chairs, will continue as an effort to help address coherence questions across the assessment and allow consolidation of the main messages of the assessment;
- The vice-chairs will continue their analysis of the coherence issues identified in the document and communicate these issues back to the author teams for them to address.
- The Policy Effectiveness chapters (Part B) will continue to advance towards their second-order drafts, while revising the cross-cutting policy chapter to help focus the narrative on transformative policy options that promote systemic change;
- The Outlooks chapters (Part C) will continue to advance towards their second-order drafts while integrating the top-down and bottom-up methods. The analysis and narrative will also move towards a focus on pathways to achieving transformative change based on addressing systems through different policy approaches;
- The findings of the Outlooks visioning workshops and the Climate CoLab work will be synthesised into a paper to be published in a respected peer-reviewed journal. This will allow the findings to be used in the assessment to highlight the benefits of combining top-down and bottom-up approaches in Outlooks efforts;
- Continued efforts will be made by the cross-cutting authors to ensure their contributions are made in each chapter, including the contributions from the economic and equity – including gender - dimensions. Efforts will be made to link the Part A and Part B cross-cutting chapters to further highlight the benefits of policy approaches based on a systems perspective;
- The success of the High-level Panel Discussion and the GEO for Youth Asia-Pacific meeting, as well as the interest in the GEO for Cities derivative product highlight the benefits of continuing to organize these outreach opportunities alongside the regular Global Environment Outlook meetings.
- Key dates for deliverables include: April 11, 2018 for delivery of chapter drafts for the technical review, May 15 – June 15 for addressing review comments from the technical review, June 15 for delivery of revised chapters for the intergovernmental review, Aug 15 – Sept. 15 for addressing the comments from the intergovernmental review, Sept. 24-27 are the meeting dates of the High-level Group drafting meeting on the Summary for Policy Makers (coordinating lead authors, co-chairs and vice-chairs to attend), Oct. 1-31 for refining and polishing the chapter text (copy editor to also provide support), Nov. 1-30 for document layout and review, week of Dec. 5 for delivery of embargoed copy of the full sixth Global Environment Outlook to Member States (see Annex 2).

During the 5 days of meetings authors met in different drafting groups to advance the chapters and also within different working groups (e.g. the Coherence Working Group) to discuss aspects where significant improvements were needed.

**Meeting Summary**

1. Advancing the drafting of the Technical Summary and Summary for Policy Makers
• A zero-order draft of the Technical Summary was produced by a small author’s team working with the co-chairs and vice-chairs. The draft is currently being worked on by the authors, co-chairs and vice-chairs to improve the key findings and messages, ensuring alignment with the main report and attributing confidence to each finding, to improve the understanding of policy makers who may eventually read the Technical Summary.
• Concerns were raised by the Policy Effectiveness authors about attributing confidence statements to their findings. The approach will be explored further to see if a compromise approach can be found.
• An early draft of the Summary for Policy Makers was produced by the authors, co-chairs and vice-chairs. Once the draft is more complete, it will be circulated for further inputs.
• Joyeeta is working on the text of the Technical Summary next week. All inputs are required from authors by Wednesday of next week. Thereafter, Paul will work on the Technical Summary text and will request inputs directly from authors.
• Paul will continue working on the text of the Summary for Policy Makers and will request inputs as needed.

2. Addressing questions of coherence across the document

• Authors met with the co-chairs and vice-chairs to identify the areas where coherence needs to be improved in the document. A strategy of using the draft Technical Summary to identify these areas of incoherence enabled progress to be made to better align the chapters and key messages and still needs further work to provide more substantive recommendations.
• Authors requested clarity on a number of aspects of the Technical Summary. They also requested guidance on ‘what to do’ when areas of incoherence are identified.
• The approach used allowed areas of coherence to also be identified in the document as well as text that may need to be moved to improve coherence.
• Integration of cross-cutting issues (such as health, the economic and equity dimensions) has proved to support the promotion of coherence.

3. Advancing the Policy Effectiveness chapters

• Policy authors worked diligently to advance their chapters towards second order drafts, improving the referencing as well as the assessment of effectiveness of the policy types and the associated case studies. Thematic chapters focused particularly on improving their current text, the embedding of the policy approaches in the wider literature, the context of the Sustainable Development Goals debate and part A of the Global Environment Outlook and the indicators analysis. The analytical framework for assessing the policy approaches and the case studies were refined to address the issues of equity (including gender), health and economic analysis. In addition, the transformative potential of environmental policies is addressed in the analytical framework.
• Short summaries of the thematic chapters were produced and shared with the co-chairs although the purpose of the summaries was the contextualisation of the selected policy approaches. A more substantial contribution to the technical summary and the summary for policy makers is planned.
The thematic chapters are complemented by an introduction with an elaboration of the methodology to assess policy effectiveness, a chapter with a literature review on theory and practice of environmental policy making and a conclusion with the main findings (i.e. innovation of environmental policy, role of multilevel governance, scaling up of policies, context dependency of effectiveness, transformative potential of environmental policies, the unfinished agenda of traditional command and control environmental policies).

The cross-cutting chapter was redesigned to better focus on systemic policy approaches and the possibilities for transformative change using these policy approaches; focus areas are climate change adaptation, circular economy, energy transition, and food security. The redraft of the chapter was proceeding smoothly, and will continue.

A different approach was proposed for tracking progress towards internationally agreed environmental goals. UN Environment will produce a traffic light dashboard for an array of different indicators to assess progress towards internationally agreed environmental goals rather than relying on the policy sensitive indicators selected in the thematic chapters. The latter will be selected primarily for the purposes of policy evaluation. However, the 3 policy-sensitive indicators for each thematic chapter will be kept and further guidelines on their application and use were developed.

The Policy authors also requested follow up meetings to help with addressing review comments and refining the chapters.

4. Advancing the Outlooks chapters (Part C)

Outlooks authors worked extensively to advance the scenarios and ‘seeds of change’ chapters towards their second order drafts. The outline for the Summary for Policy Makers received from the High-level Group provided guidance on the main themes that could be focused on in the Outlooks chapters;

These themes could include: the need for urgent and sustained action to achieve environmental goals, there is a need to change the path we are in order to achieve the internationally agreed environmental goals, including the Sustainable Development Goals, a focus on systemic transformation is likely needed to make progress towards these goals more quickly, and finally there are significant benefits of using this more transformative approach.

The Outlooks authors are likely to deliver an early second-order draft for the technical review beginning April 11, 2018. A request will be made of reviewers to assist in advancing the document towards a cleaner second-order draft.

Two meetings will possibly be organized (budget permitting) to help the Outlooks authors address the review comments from the technical and intergovernmental reviews in a more targeted fashion.

Important discussions were held to more actively integrate human health into the scenarios and outlooks work. Health authors are requested to assist with data and text to move this forward. Also efforts were made to include health, the economic and equity dimensions (including gender) considerations.

5. Outlooks visioning workshop
A fourth outlooks visioning workshop was held on Feb. 21, 2018 with a cities focus. Participants in the workshop included: local Singapore stakeholders, authors of the GEO for Youth, Asia-Pacific and selected experts from the author teams;

Findings from the workshop included:
  - Environmental monitoring - How can citizens and stakeholders help monitor, track, and access changing environmental conditions? Seeds submitted brought up the use of blockchain-based open source reporting, smart water sensors to monitor drainage, open data platforms, satellite imagery, and app-based citizen monitoring of pollution.
  - Circular economy – How can resource and material loops be closed? Participants spoke about “trash to treasure” flea markets, a circular economy initiative database, and training people to repair their broken products. A large focus is on actions that can be taken at the community level.
  - New and improved methods of farming - How can food production be increased, particularly in urban environments? Seeds included the use of shipping container farming, local community gardens, and smart farming. A paper is planned to be published on the technical results and findings of the outlooks visioning work, so that these findings from the workshops can be used in the assessment process.

6. Advancing the drafting of the cross-cutting and common threads across the report

- Cross-cutting and Common Thread Lead Authors worked to create text which could be added to the existing chapters. The focus was primarily on inserting text into the Policy chapters;
- Significant text was drafted for the economic dimension common thread and efforts are being made to present this material for integration into the chapters;
- Significant text was also produced for the equity (including gender) dimension common thread and authors were consulted on how this could be included into the various chapters;
- Due to the late arrival of the authors from the common threads into the drafting process, important efforts will be needed to support their findings with sound evidence;
- The importance of the cross-cutting issues and common threads to the systemic transformation narrative has emerged as a critically important issue to address for the April 11th review draft.

7. Global Environment Outlook High-Level Panel Discuss

- The High-Level Panel Discussion focused on Climate actions in cities, creating a liveable environment for people, and examined the role of science, policy and business in creating a better global future. The discussion also focused on concrete case studies from Singapore and from cities around the world. The panel also considered key cross cutting issues such as the economic and equity dimension and the effects of the environment on health.

• The GEO for Cities is one of the main derivate products of Global Environment Outlook specifically targeting the needs and the potential of cities in achieving the Sustainable Development Goals.
• The fundamental objective of the GEO Cities project is to: (a) promote a better understanding of the interaction between urban development and the environment; (b) providing so reliable and up-to-date information to the region’s local governments, scientists, policy-makers and key stakeholders; and (c) help them improve urban-environmental knowledge base planning and management.
• The GEO for Cities reports provide information on the state of the environment, the main factors for change, and the policies affecting the environment, their effectiveness as well as emerging themes.
• For this new edition it is envisaged to develop a more dynamic and interactive product compared to the previous editions. The main idea is to build on existing networks and attract more key players, especially from developing countries to create sustainable pathways within the Sustainable Development Goals framework.

9. Drafting the GEO for Youth Asia-Pacific
• The first meeting of the Global Environment Outlook for Youth, Asia-Pacific was held in parallel to the Fourth and final Global Authors Meeting of the Sixth Global Environment Outlook (GEO-6) from 19 - 23 February 2018 in Singapore.
• The meetings were co-organised by UN Environment and the Ministry of Environment and Water Resources of Singapore.
• 12 young authors from India, Japan, Republic of Korea, the Philippines, Singapore and Thailand attended the meeting.
• The first authors’ meeting discussed and agreed on report storyline and structure, themes and topics for each chapter, presentation ideas and style, links to relevant Sustainable Development Goals and targets, placeholders for multimedia features and best practices/case studies.
• The authors team also reviewed and agreed on the workplan and timetable for the development of youth-oriented product, and the role and responsibility of each lead author in the drafting process, including an internal review for coherence and consistency.

10. Schedule for delivery of the peer review drafts
• The technical review will begin on April 16, 2018, which means all chapters must be delivered to the Secretariat in second-order draft form by April 11, 2018.
• The review comments will need to be addressed between May 15 and June 15, 2018 by the authors. Efforts are being made with the Review Editors to improve the efficiency and accuracy of the process of addressing the comments.
• A Science Editor will also review the chapters from April 15 to June 15 to tighten up the narrative, propose improvements to the quality of the science and eliminate duplication in the document.
• The intergovernmental review begins on June 15, 2018 until Aug. 15, 2018.
• The review comments from this intergovernmental review will need to be addressed between Aug. 15 and Sept. 15, 2018.
• The drafting meeting for the second-order draft of the Summary for Policy Makers will happen from Sept. 24-27, 2018 in Mexico. Further information will be made available as it becomes available. Co-chairs, vice-chairs and coordinating lead authors are asked to keep these dates open for participation in the meeting.
• Authors will have until Oct. 30, 2018 to fine tune their text and work with the copy editor on their chapters in preparation for the Secretariat’s document production exercise.
• An embargoed copy of the final document will be available for Member States by the week of Dec. 5, 2018. (See Annex 2 for tabular format of the timeline)
Summary for Policy Makers – Proposed annotated Outline and Structure

1. **What is the Global Environment Outlook? (1 page)**
   a. What is new in the sixth Global Environment Outlook?
   b. How did we get here?
   c. What is the current state of our knowledge about these issues (from the first to the sixth edition)?

2. **What is Happening to Our Environment and How Have We Responded? (12 pages)**
   a. Drivers of environmental change, megatrends and governance challenges
   b. The State of the environment
      i. Air
      ii. Freshwater
      iii. Oceans
      iv. Land
      v. Biota/biodiversity
      vi. Crosscutting issues
   c. What have we done about it?

3. **Changing the Paths we are on (6 pages)**
   a. The need for urgent and sustained and inclusive actions
   b. Innovation for systemic transformation to achieve environmental goals
   c. The benefits that will result from following this new path

4. **Knowledge for Action (1 page)**
   a. More data/knowledge leads to better and more effective actions/solutions in more places
   b. Opportunities from the data revolution
## Annex 2: Timeline for Production of sixth Global Environment Outlook

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<tr>
<th>Date</th>
<th>Activity</th>
<th>Comment</th>
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<tr>
<td>April 11, 2018</td>
<td>Deadline third order drafts Part A; second-order</td>
<td>All chapters should be available in their second order draft form by April 11.</td>
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<td>drafts Part B and Part C.</td>
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<td>April 16, 2018</td>
<td>Technical review of all 25 chapters</td>
<td>Authors must produce a third-order draft before the June 15 intergovernmental review.</td>
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<td>May 15 – June 15, 2018</td>
<td>Authors address the comments from the Technical</td>
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<td>Review</td>
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<td>April 15 – June 15, 2018</td>
<td>Science editor will provide comments to authors</td>
<td>Terms of Reference for the Science Editor should be evaluated by the High-level Group and the Scientific Advisory Panel.</td>
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<td>to tighten up text, address quality issues with the</td>
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<td>June 15 – Aug. 15, 2018</td>
<td>Intergovernmental review of the full 25 chapters</td>
<td>Request for nominations for reviewers will be send out by April 30th.</td>
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<td>Aug. 15 – Sept. 15, 2018</td>
<td>Authors address the comments from the</td>
<td>The grid of comments sent by governments will be shared with High-level Group members on Aug. 20, 2018 in preparation for their drafting meeting.</td>
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<td>Sept. 24-27, 2018</td>
<td>High-level Group members will meet to produce the</td>
<td>Coordinating lead authors, co-chairs and vice-chairs of the assessment and co-chairs will be present to support the drafting process. The co-chairs and vice-chairs of the Scientific Advisory Panel will be present as observers.</td>
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<td>second-order draft of the Summary for Policy Makers</td>
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<td>Oct. 1 – 30, 2018</td>
<td>Authors will fine tune the text of their chapters</td>
<td>All review comments and quality control on chapters must be dealt with by Oct. 30.</td>
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<td>and work with the copy editor to ensure a high</td>
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<td>Nov 2018</td>
<td>The Secretariat will produce the layout version of</td>
<td>If a university press is hired for the final publication, a camera-ready version will be delivered to the press by Nov. 21, 2018.</td>
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<td>Week of Dec. 5, 2018</td>
<td>The Secretariat will deliver an embargoed version</td>
<td>The translated version of the Summary for Policy Makers will be sent to Member States at least 6 weeks prior to the January, 2019 negotiation session.</td>
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