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**Ad hoc open-ended working group on a science-policy panel
to contribute further to the sound management of
chemicals and waste and to prevent pollution
First session**

Nairobi, 6 October 2022 and Bangkok, 30 January–3 February 2023

Comparative analysis of existing assessment structures

Note by the secretariat

The annex to the present note contains a comparative analysis of existing assessment structures, which the ad hoc open-ended working group on a science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution may wish to consider. The annex has not been formally edited.

Annex***Comparative analysis of existing assessment structures**

1. At its resumed fifth session, held in Nairobi and online from 28 February to 2 March 2022, the United Nations Environment Assembly (UNEA) of the United Nations Environment Programme (UNEP), by its resolution 5/8, decided that a science-policy panel should be established to contribute further to the sound management of chemicals and waste and to prevent pollution (hereinafter referred to as the “science-policy panel”), with details to be further specified according to the provisions of paragraphs 4 and 5 of the resolution.

2. In addition, the Environment Assembly decided to convene, subject to the availability of resources, an ad hoc open-ended working group that would commence its work in 2022, with the ambition of completing it by the end of 2024. The Environment Assembly further requested the Executive Director of UNEP to provide a secretariat for the ad hoc open-ended working group and to prepare the analytical and summary reports necessary for its work.

3. The present document has been prepared by the secretariat and presents a comparison of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Intergovernmental Panel on Climate Change (IPCC), UNEP Global Environmental Outlook (GEO), Montreal Protocol Assessment Panels (ozone layer), and UNEP International Resource Panel (IRP) processes.

I. Comparison of the institutional design, functions of the plenary and subsidiary bodies, selection of subsidiary body members (e.g., bureaus and multi-disciplinary expert panels), scoping processes, nomination and selection of assessment chairs and experts, peer-review processes and acceptance and approval processes

4. The goal of each of these processes is to provide credible and relevant information through legitimate processes.

A. Institutional design

5. IPBES – Plenary, Bureau, Multi-disciplinary Expert Panel (MEP), Expert Groups (assessments), Task Forces, secretariat and technical support units (TSUs)

6. IPCC - Plenary, Bureau, Executive committee, three Working Groups (Working Group I - the physical science basis, Working Group II- impacts, adaptation and, and Working Group III – mitigation of climate change) and one Task Force on GHG Inventories (TFI), secretariat and Technical Support Units (TSUs)

7. GEO – Ad-hoc Open-Ended Working Group (OEWG), Intergovernmental and Multi-stakeholder Advisory Group (IMAG), Multi-disciplinary Expert Scientific Advisory Group (MESAG), and an Assessment Panel

8. Ozone – Meeting of the Parties (MOP) and OEWG of the Montreal Protocol, three Assessment Panels (science, environmental effects, and technology and economic), secretariat

9. IRP – Steering Committee (government representatives and a representative of UNEP), Scientific Panel, secretariat

B. Functions of the plenary and subsidiary bodies

1. IPBES

10. *Plenary* is the decision-making body comprised of Member States with voting rights and attended by observers with voice but no voting rights.

* The annex has not been formally edited.

11. *IPBES Bureau* has 10 members (2 per UN region) – the purpose of the Bureau is to fulfil a set of administrative functions (e.g., overseeing implementation of Plenary decisions). Bureau members represent their regions.
12. *IPBES MEP* has 25 members (5 per UN region) - the purpose of the MEP is to fulfil a set of scientific and technical functions. MEP members are independent, and do not represent their region.
13. *Secretariat* is located in Bonn, hosted by Germany, supported by contributions from members and others to a trust fund, and provided by UNEP. A number of technical support units (TSUs) support expert groups for the production of assessments, and task forces.
14. *Expert groups*, each supported by a dedicated TSU, to conduct assessments (implementing objective 1 of the IPBES work programme up to 2030).
15. *Task forces*, each supported by a specific TSU, for specific activities on capacity building, knowledge and data, indigenous and local knowledge, policy support, and scenario and models (implementing objectives 2 to 4 of the IPBES work programme up to 2030).

2. IPCC

16. *IPCC* is the decision-making body comprised of Member States with voting rights and attended by officials and experts from relevant ministries, agencies and research institutions from member states and from Observer Organizations. Major decisions of the IPCC will be taken by the Panel in plenary meetings.
17. *IPCC Bureau* has 34 members – chair, 3 vice chairs, 8 WG and Task Force co-Chairs (2 per WG and Task Force), 7 WG I vice-Chairs, 8 WG II vice-Chairs, and 7 WG III vice -chairs. The purpose of the Bureau is to provide guidance to the Panel on the scientific and technical aspects of the work of the IPCC, and to advise on related and management and strategic issues, and to take decisions on specific issues within its mandate.
18. *IPCC Executive Committee* (ExCom) has 12 members - chair, 3 vice chairs, 8 WG and task Force co-Chairs. The purpose of the ExCom is to strengthen and facilitate the timely and effective implementation of the IPCC work programme. The ExCom addresses urgent issues related to IPCC products and its work programme that require prompt attention between Panel Sessions and strengthens coordination between Working Groups (WGs) and the TFI on activities related to the production of assessment reports and other relevant IPCC products. It also undertakes communication and outreach activities and oversees the response to possible errors in completed assessments and other IPCC products based on the Error Protocol. Other activities may be undertaken at the request of the Panel.
19. *Working groups* conduct assessments, and the task force on GHG inventories oversees the inventory program supported by three WG TSUs and the TFI TSU located with the developed country co-Chair of the assessments and developed country task force co-chair.
20. *Secretariat* coordinates and assists the work of IPCC including through organization of IPCC Plenary, Bureau and ExCom meetings. It supports the Panel, IPCC Chair and other members of the ExCom and IPCC Bureaux in delivery of their mandate, as well as, as required, the WGs, TFI, and any other task force, task group or committee established by the IPCC in the organization of their activities and meetings. The Secretariat also manages the IPCC Trust Fund and any other Funds agreed by the Panel and manages contractual and legal matters related to the IPCC. The secretariat is located within WMO headquarters in Geneva and is co-sponsored by WMO and UNEP.

3. GEO

21. *Ad-hoc Open-Ended Working Group* is a decision-making body comprised of Member States mandated to adopt procedures, scoping paper, advise on author selection, and approval of the assessment SPMs.
22. The *UNEP ED* has authority, in selecting the chairs and authors of the assessments, members of IMAG and MESAG, and overseeing many aspects of the assessment cycle, e.g., scoping.
23. *IMAG* has over 30 members, including 2 co-chairs, 2 vice chairs, and 1 rapporteur. The purpose of the IMAG is to provide policy guidance.
24. *MESAG* has 30 members, including 2 co-chairs, 2 vice chairs, and 1 rapporteur. The purpose of the MESAG is to provide scientific and technical advice, including overseeing the scientific integrity of GEO.

25. *Assessment panel.*
26. *Secretariat* is provided by UNEP and located Nairobi.

4. **Ozone**

27. *Meeting of the Parties (MOP) to the Montreal Protocol* decides on the assessment process, scope, procedures, and selection of co-chairs; Open-Ended Working Group provides recommendations and guidance to the assessment processes for MOP decisions.
28. *Secretariat* is provided by UNEP and located in Nairobi, Kenya. It serves the parties and facilitates their work. It also supports and assists the assessment panels.
29. *Three panels* on science with over 300 members and 4 co-chairs; on environmental effects with about 50 members and 3 co-chairs; and on technology and economics with its 5 technical options committees totalling about 150 members and 3 co-chairs, *conduct* the assessments.

5. **IRP**

30. *Steering Committee* (currently 28 members, 7 observers) – members are from Members States, regional economic integration organizations, or UNEP. There is no upper limit on membership. Observers are invited government representatives who may wish to join the steering committee.
31. *Scientific Panel* (35 – 40 members, serving for a maximum of three 4-year terms).
32. *Secretariat* is hosted by UNEP and based in Paris.

C. **Selection of the plenary chair and subsidiary body members (e.g., bureaux and multi-disciplinary expert panels)**

33. IPBES – Each region selects two Bureau members, from which one is selected as chair for a single three-year term, with the chair rotating from one region to another. Each region selects five MEP members. Bureau and MEP members are selected by the Plenary for three years, renewable for a second term.
34. IPCC – The IPCC chair, IPCC Bureau, and Task Force Bureau members are elected by the Panel based on nominations received by the members of the IPCC and taking into consideration regional and gender balance.
35. GEO – the OEWG selects two co-chairs, two vice-chairs and a rapporteur (one from each region), the UNEP Executive Director selects a geographically, disciplinary and gender balanced IMAG based on Member States, specialized agencies and major group nominations, and the UNEP Executive Director selects a geographically, disciplinary and gender balanced MESAG based on Member State, specialized agencies and major group nominations. IMAG and MESAG will self-select two chairs, two vice-chairs and a rapporteur.
36. Ozone – the three assessment panels are subsidiary bodies of the Montreal Protocol.
37. IRP – there are no subsidiary bodies.

D. **Scoping processes**

38. IPBES – initiated by plenary, scoped by nominated experts, reviewed and approved by plenary.
39. IPCC - initiated by the Panel, scoped by nominated experts, reviewed by experts and governments, and approved by the Panel.
40. GEO - initiated by UNEA, scoping overseen by UNEP Executive Director, with advice from the assessment panel co-chairs and vice-chairs and IMAG, reviewed and endorsed by an ad-hoc OEWG.
41. Ozone – decided by the MOP after consideration by OEWG.
42. IRP – a strategic planning exercise is undertaken every four years, and a resulting work programme is prepared by the secretariat based on IRP members and public consultations. The work programme is reviewed by the scientific panel and reviewed and approved by the steering committee. Panel members prepare terms of reference for scientific assessments according to the work programme, which are submitted to the scientific panel and steering committee for review and approval.

E. Nomination and selection of assessment chairs

43. IPBES – governments and relevant institutions nominate and the MEP, with advice from the Bureau, select the co-chairs.
44. IPCC – chaired by the appropriate WG co-Chairs. The WG Co-Chairs, as members of the IPCC Bureau, are elected, along with the IPCC Chair and other IPCC Bureau members, by the Panel. Election of any Task Force Bureau is normally undertaken at the same Session of elections for the IPCC Bureau. Nominations made by the government of a Member of the IPCC for the IPCC Chair as well as for all other Bureau and Task Force Bureau positions are invited to be given in writing six months or more prior to the scheduled election. Nominations may be made through oral representations at the Session at which an election is to be held. Voting is by secret ballot and candidates are elected by a simple majority of valid votes cast.
45. GEO – the UNEP Executive Director selects the chairs and vice chairs.
46. Ozone – each assessment panel has 2-4 co-chairs nominated by governments and appointed by the MOP.
47. IRP – scientific panel chairs and steering committee co-chairs are nominated by panel members, steering committee and secretariat, and appointed by the steering committee.

F. Nomination and selection of assessments CLAs, LAs, REs, contributing authors

48. IPBES – governments and relevant institutions nominate, and the MEP selects with advice from the Bureau and assessment co-chairs, taking into account regional, gender and disciplinary balance.
49. IPCC – governments nominate and the Bureau selects taking into account regional, gender and intellectual balance.
50. GEO – governments nominate, and the UNEP Executive Director selects, taking into account advice from the assessment co-chairs, IMAG and MESAG taking into account regional, gender and intellectual balance.
51. Ozone – governments nominate, and the assessment co-chairs select experts for their panel, taking into account regional, gender and intellectual balance.
52. IRP – new panel members are selected by the steering group, based on a call for new members and recommendations by the panel, steering committee, secretariat and co-chairs. Co-Chairs and 3 panel members review recommendations and put forward potential new members to the secretariat. The secretariat consults the steering committee and appoint new members. A sub-set of the panel members are the authors of a particular study. Lead authors for scientific assessments are selected by the scientific panel co-chairs, contributing authors are selected by lead authors.

G. Review processes

53. IPBES – the chapters of the main report undergo two rounds of review, expert and expert/government, and the summary for policymakers undergoes one expert/government review, and one final government review prior to the plenary. A second government review maybe added prior to the final government review.
54. IPCC – the main report undergoes two rounds of review, expert review of the first draft report and simultaneous expert and government review of the second draft report. The final draft of the main report is distributed to governments for a final round of written comments on the Summary for Policy Makers (SPM) before governments meet in plenary session to approve the SPM line by line and accept the main report.
55. GEO - the main report undergoes two rounds of review, expert and expert/government, and the SPM undergoes an expert/government review.
56. Ozone – the science and environmental effects reports undergo an expert review, and on rare occasion a TEAP report undergoes an expert review.
57. IRP – the reports undergo two internal review rounds at the first and second draft stage. The first draft of the report subsequently undergoes an external expert review.

H. Acceptance and approval processes

58. IPBES – the plenary accepts the chapters and approves the summary for policymakers line by line.
59. IPCC - the plenary accepts the main report and approves the Summary for Policy Makers line by line.
60. GEO – the OEWG accepts the main report, based on the advice of IMAG and MESAG that all procedures were followed, and the OEWG approves the Summary for Policy Makers line by line.
61. Ozone – the panels approve their own reports.
62. IRP – the steering committee provides input and recommendations on the final draft - approval requires agreement of two-thirds of the scientific panel, with advice from the steering committee.

II. Strengths and weaknesses of these processes

63. All models produce assessments that are credible and relevant, but their processes differ, and the involvement of Member States and other stakeholders varies, especially with respect to scoping, review, and acceptance/approval of reports.
64. IPBES and IPCC are *independent intergovernmental* science-policy processes, with their own rules of procedure, providing policy-relevant, but not policy prescriptive assessments. Their reports are used extensively in national decisions, and international processes such as the CBD and UNFCCC. In contrast, GEO is an *intergovernmental* process, under the auspices of UNEA, with considerable decision-making authority given to the UNEP Executive Director. The stratospheric ozone assessments are *expert led* with the scope of the assessments determined by the MOP. However, their reports are highly influential at both the national level, and in the MOP for decision-making. The IRP, whose secretariat is hosted by UNEP is an assessment process with a steering committee comprised of Member States.
65. *Plenary and OEWGs:* The functions of the IPBES plenary and IPCC Panel are quite similar. In each case they are the decision-making bodies, open to all Member States and qualified observers, but only Member States having voting rights. The ad-hoc OEWG of GEO has a more limited set of functions defined by a UNEA resolution. The Montreal Protocol assessment panels have significant independence from the MOP and OEWG, and the IRP panel also has significant independence from the steering committee in terms of its scientific assessments, however, this body is critical to formulating the overall work programme and overseeing the operations of the panel.
66. *Subsidiary bodies:* The single biggest difference between the IPCC and IPBES models is that IPCC has a Bureau that addresses scientific, technical, policy and administrative issues, whereas IPBES has a Bureau that fulfils administrative functions, and a Multidisciplinary Expert Panel that fulfils scientific and technical functions. GEO has a structure more akin to IPBES than IPCC, with the IMAG being equivalent to the IPBES Bureau and MESAG being equivalent to the MEP, with the functions being similar, but not quite the same. One of the Montreal Protocol assessment panels (TEAP) has subsidiary bodies (technical options committees, task forces and working groups) and IRP has no subsidiary bodies.
67. Recognizing that there is no perfectly clean separation between scientific and technical issues, and management and policy issues, one advantage of the IPCC model is that a single subsidiary body, the Bureau, addresses all issues simultaneously. However, one advantage of the IPBES and GEO models is that the members of the Bureau/IMAG are selected for their management and policy expertise, and members of MEP/MESAG for their scientific and technical expertise, and where appropriate scientific and technical issues are separated from policy and administrative issues. IPBES and GEO address overlapping issues in joint meetings of the Bureau and MEP, and IMAG and MESAG, respectively.
68. Given the size of the IPCC Bureau, an Executive Committee has been established to address issues related to IPCC products and its work programme that require prompt attention between Panel Sessions. IPBES does not require an executive committee as the Bureau is much smaller, and the chair/co-chairs of the Bureau and MEP, respectively, interact when the Bureau and MEP meet simultaneously. GEO has a coordinating committee comprising of the chairs and vice-chairs of IMAG, MESAG and the assessments.

III. Implications for assessments

69. *IPCC Assessments:* The authors producing the reports are currently grouped in three working groups – Working Group I: The Physical Science Basis; Working Group II: Impacts, Adaptation and Vulnerability; and Working Group III: Mitigation of Climate Change – and the Task Force on National Greenhouse Gas Inventories (TFI). IPCC Assessment Reports cover the full scientific, technical and socio-economic assessment of climate change, generally in four parts – one for each of the Working Groups plus a Synthesis Report. Special Reports are assessments of a specific issue. Methodology Reports provide practical guidelines for the preparation of greenhouse gas inventories under the UNFCCC *IPBES Assessments:* IPBES assessments are not subdivided into separate groups and all assessments – global, regional, thematic, or methodological – address all aspects of biodiversity and ecosystem services in an integrated manner, in line with the IPBES conceptual framework. A unique aspect of the assessments is that they are based on science and on other forms of knowledge, including indigenous knowledge according to the IPBES “procedures for working with indigenous and local knowledge systems”. IPBES assessments are chaired by experts nominated by governments and other relevant stakeholders and selected by MEP, with advice from the Bureau. Bureau and MEP members are not eligible to chair or be authors of IPBES assessments. The authors (CLAs, LAs) and REs are nominated by governments and relevant stakeholders, and selected by the MEP, with advice from the Bureau and from assessment co-chairs.

70. *GEO assessments:* GEO assessments, like IPBES, are not subdivided into the science, impacts, and response options – they address all three aspects of the environment. GEO assessments are chaired by experts selected by the UNEP Executive Director. The authors (CLAs, LAs) and REs are nominated by Member States and relevant stakeholders, and selected by the UNEP Executive Director, with advice from the IMAG, MESAG and assessment co-chairs and vice-chairs.

71. *Montreal Protocol assessments:* There are three assessment panels, science, environmental effects, and technology and economic. The co-chairs are nominated by parties to the Montreal Protocol (i.e., governments) and appointed by the MOP. The authors are selected by the assessment co-chairs upon nomination by Parties.

72. *IRP:* IRP assessments, like IPBES and GEO, address all relevant aspects of an issue in one report. The focus of the scientific assessments, approved by both panel and steering committee, is guided by the four-year work programme that has been approved by the steering committee. Lead authors are selected by the scientific panel co-chairs; contributing authors are selected by the lead author. Only the scientific panel approves reports for publication, based on guidance by the steering committee.

73. While IPCC assessments include engagement of members of the IPCC Bureau, IPBES assessments do not include IPBES subsidiary bodies, thus a clear separation of functions.. In this respect GEO is similar to IPBES. The Montreal Protocol and IRP processes are quite independent of Member States.

74. One advantage of the IPBES and GEO assessment model, over the IPCC and Montreal Protocol assessment model, is that the inter-connections between the scientific, impacts and response options are more easily addressed in one process rather than three processes, where coordination is more difficult.

IV. Scoping, review, and acceptance and approval processes

75. *Scoping:* The IPBES, IPCC and GEO scoping processes are comparable and involve Member States, experts, and relevant stakeholders. The reports are detailed and thoroughly reviewed and adopted by the IPBES plenary and IPCC, and the ad-hoc OEWG of GEO. The Montreal Protocol assessments are largely scoped by the Parties. The IRP scoping process for its four-year work programme is approved by the steering committee, while reports are largely developed by the panel members with input and recommendations by the steering committee.

76. *Peer-review:* The peer-review processes of IPBES, IPCC and GEO typically involve two rounds of review involving Member States and experts. Where-as the stratospheric ozone assessments (science and environmental effects) only undergo one round of expert review, and the TEAP reports are rarely peer-reviewed. The IRP reports undergo two rounds of internal review, and one round of external expert review.

77. *Acceptance and approval:* The chapters of IPBES and IPCC assessments are accepted by the IPBES plenary and IPCC, and the GEO reports by UNEA. The IPBES and IPCC summary for policymakers are approved, line by line, by their respective decision making bodies, and the GEO

summary for policymakers are approved, line by line, by the ad-hoc OEWG. The Montreal Protocol assessment is approved by its own panel, without member state review. The IRP reports are approved by their own scientific panel, with input and recommendations from member states of the steering committee.

V. Conclusion

78. All processes have produced credible and relevant information for evidence-based decision-making by governments and other stakeholders, nationally and internationally.

79. The IPBES, IPCC and GEO processes are the most rigorous, open and transparent, with respect to scoping, selection of chairs and authors, review, and acceptance and approval processes. Member States are involved in all aspects of the work and own the processes and final reports. IPBES and IPCC are independent of UN agencies and MEAs, where-as GEO is a UNEA process. The stratospheric ozone panels have more independence in producing and approving the assessments and selecting experts. The IRP processes are much more independent of member states in all aspects of their work.

80. The IPBES model provides a greater level of separation between scientific and technical issues, and policy and administrative issues, with its separate Bureau and MEP, and selection of assessment co-chairs, than IPCC.

81. Given this comparative analysis, the meeting may wish to consider which scientific assessment process is most appropriate for an independent intergovernmental science-policy process that is relevant, credible and legitimate for chemicals, waste and prevention of pollution as recommended by UNEA.
