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sustainable development**

Options for the scope and methodology for a global sustainable development report

Report of the Secretary-General

Summary

The present report has been prepared pursuant to General Assembly resolution [67/290](#) of 9 July 2013 on the format and organizational aspects of the high-level political forum on sustainable development.

The report puts forward several options for the scope and methodology for a global sustainable development report. The options are based on responses from Member States and United Nations system entities to a questionnaire on the subject. They also draw on lessons learned from an exploratory, multi-stakeholder process to produce a prototype edition of a global sustainable development report, in order to illustrate the potential content and process for such a report.

* [E/2014/1/Rev.1](#), annex II.



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I. Context

1. The present report has been prepared pursuant to General Assembly resolution 67/290 on the format and organizational aspects of the high-level political forum on sustainable development. In paragraph 20 of the resolution, the Assembly decided that the forum should strengthen the science-policy interface by examining documentation, bringing together diverse information and assessments, including in the form of a global sustainable development report, building on existing assessments, enhancing evidence-based decision-making at all levels and contributing to the strengthening of ongoing capacity-building for data collection and analysis in developing countries, and requested the forum to consider, in 2014, the scope and methodology for a global sustainable development report, based on a proposal of the Secretary-General reflecting the views and recommendations of Member States, and relevant United Nations entities, including the Committee for Development Policy.

2. All Member States, political groups and all 53 United Nations organizations of the expanded Executive Committee on Economic and Social Affairs (ECESA plus) were invited to make proposals on the scope and methodology of a global sustainable development report, inter alia, through a questionnaire. The Secretary-General expresses his appreciation for their contributions to the present report. Responses were received from China, Costa Rica, Croatia, Indonesia, Japan, Jordan, the Russian Federation, Switzerland, Tunisia and the United Kingdom of Great Britain and Northern Ireland, from the European Union and from the Committee for Development Policy, the Economic Commission for Latin America and the Caribbean, the Economic and Social Commission for Asia and the Pacific, the United Nations Conference on Trade and Development (UNCTAD), the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO). Related inputs were considered from experts and United Nations partners who participated in expert group meetings, including from the secretariat of the Convention on Biological Diversity and from the Economic Commission for Europe (ECE), the Food and Agriculture Organization of the United Nations (FAO), the International Atomic Energy Agency (IAEA), UNEP and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

3. Section II draws lessons learned from an exploratory, multi-stakeholder process to produce a prototype edition of a global sustainable development report. Section III provides a synthesis of responses from Member States and United Nations system entities to a questionnaire on the subject, and section IV sets out recommendations for consideration by Member States.

II. Prototype edition of a global sustainable development report

A. Introduction

4. The concept of sustainable development has a very long history in science. As early as 1713, Hans Carl von Carlowitz referred to sustainable yield in the context of sustainable forestry management. In 1987, the report of the World Commission on Environment and Development, entitled “Our common future” (A/42/427, annex), popularized the concept, which was subsequently adopted at the United

Nations Conference on Environment and Development (Earth Summit) held in Rio de Janeiro, Brazil, in 1992, together with a set of Rio principles and a global action plan, Agenda 21,¹ which included many goals and targets, some of which became part of the Millennium Development Goals.

5. Scientific considerations and the work of scientists have become increasingly present in the sustainable development debate within the United Nations since the 1990s, especially owing to the efforts of academies of sciences to reconnect science with policy. For example, the National Academy of Sciences of the United States of America created a Board on Sustainable Development in 1995, which sought to make the concept of sustainable development manageable and measurable by focusing on a minimal sustainability transition over two generations, until 2050.²

6. It should be noted, however, that the policy framework for sustainable development initially emerged with little basis in scientific considerations and the work of scientists. There were no scientists on the World Commission on Environment and Development and little representation of the scientific community or of the work of scientists at the United Nations Conference on Environment and Development in 1992. At the World Summit on Sustainable Development, held in Johannesburg, South Africa, in 2002, there was some scientific presence. In 2012, scientists were among the most prominent groups at the side events for the United Nations Conference on Sustainable Development. The Scientific Advisory Board of the Secretary-General, composed of 26 scientists, convened for the first time in January 2014.

7. Sustainability science emerged as a new interdisciplinary, unified scientific endeavour around the year 2000. It is a field defined by the problems it addresses rather than by the disciplines it employs. The number of authors who publish articles on the topic has doubled approximately every eight years since the early 1970s. In 2010, about 37,000 scientists from 174 countries wrote articles with “sustainable development” or “sustainability” in the title. In 2012 alone, according to Google Scholar, more than 150,000 such academic articles were published, six times more than 10 years ago.

8. However, to date, there is no comprehensive, authoritative global sustainable development report that brings together the range of existing assessments and that reviews global progress and future pathways in a truly integrated way, taking into account the perspectives of scientific communities across the world, despite the policy prominence of many topical assessments.

9. In 2012, the High-level Panel on Global Sustainability, in its final report in preparation for the United Nations Conference on Sustainable Development, entitled “Resilient people, resilient planet: a future worth choosing” (A/66/700, annex) detailed the importance of basing policy on the best scientific evidence and called for a global sustainable development outlook report to bring together assessments across sectors in an integrated manner.

¹ *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992*, vol. I, *Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

² National Research Council, Policy Division, Board on Sustainable Development, *Our Common Journey: A Transition Toward Sustainability* (Washington, D.C., National Academy Press, 1999).

10. In the outcome document of the United Nations Conference on Sustainable Development, Member States decided to establish a universal, intergovernmental high-level political forum on sustainable development which would, as one of its functions, “strengthen the science-policy interface through review of documentation, bringing together diverse information and assessments, including in the form of a global sustainable development report, building on existing assessments” (see General Assembly resolution 66/288, annex, para. 85 (k)).

11. In response, the Secretary-General tasked the Division for Sustainable Development of the Department of Economic and Social Affairs to undertake in-depth analysis and evaluation of trends and scientific analysis in the implementation of sustainable development, including lessons learned, best practices and new challenges, and cross-sectoral analysis of sustainable development issues (see A/67/591, chap. III). Further details were provided in the revised programme budget adopted by the General Assembly at the end of 2012.

12. In early 2013, work began within the Division for Sustainable Development on a prototype edition of a global sustainable development report that could illustrate potential content, alternative approaches and various ways of participation, in order to support Member States’ deliberations on the scope and methodology of future editions of the report. An executive summary was presented at the inaugural meeting of the high-level political forum on sustainable development, held on 24 September 2013. Following further review, a comprehensive prototype report will be presented at the second meeting of the forum, in July 2014.³

B. Process

13. The prototype report is the result of the collaborative effort of many scientists, experts, United Nations staff and government officials.

United Nations system effort

14. The Division for Sustainable Development led the preparation of the prototype edition. It invited scientific communities and colleagues in the United Nations system to provide focused inputs to the report. The Secretary-General expresses his appreciation to the United Nations entities that have joined the effort to date: the Department of Economic and Social Affairs; the secretariats of the Convention on Biological Diversity, of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa and of the United Nations Framework Convention on Climate Change (the Rio Conventions); ECE, ECLAC, ESCAP, the Economic and Social Commission for Western Asia (ESCWA), FAO, IAEA, the International Labour Organization (ILO), the International Maritime Organization (IMO), the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, UNCTAD, UNESCO, UNEP, the United Nations Human Settlements Programme (UN-Habitat), the United Nations Industrial Development Organization (UNIDO), the United Nations Population

³ The report and background information for elements discussed in chapters II and III of the present report are available from <http://sustainabledevelopment.un.org/globalsdreport>.

Fund (UNFPA), the World Bank and the World Food Programme (WFP). The International Monetary Fund (IMF) participated as an observer.

Consultations

15. In 2013, a series of eight expert group meetings and consultations were organized to support the preparation of draft chapters and to explore informal networks of scientific contributors. The meetings differed greatly in terms of content focus, geographic focus and meeting participants. One of the meetings, hosted by the Government of Croatia, resulted in the Dubrovnik Declaration, which provided a regional perspective on the science-policy interface for a sustainable future (A/C.2/68/8, annex).

16. The substantive starting point for the prototype report included existing scientific research and in-depth studies from a wide range of sources, including the large number of scientific contributions, issue briefs and official submissions prepared for the United Nations Conference on Sustainable Development; international scientific assessments; science-policy briefs of academies of sciences; institutional reports; Government-sponsored research; and national and regional sustainable development reports.

17. Views differed on the optimal approach to selecting contributing scientists for the report. In view of the limited time available, the Division for Sustainable Development approached scientists who had participated in recent initiatives implemented by the Division and scientists suggested by United Nations partners and by major scientific groups, notably the International Council for Science (ICSU) and the International Social Science Council.

18. To date, hundreds of contributors and reviewers from 46 countries have supported the report, including 57 staff members of the United Nations system, from 21 entities, 35 government officials, 2 major groups and 161 individual academics and scientists. Input has been received from 178 experts who had participated in a project of the Division in preparation for the United Nations Conference on Sustainable Development,⁴ and an international team of young scientists and research students from several universities.

19. Many of the report's messages and findings were crowdsourced using web-based social science methods.⁵ A multilingual crowdsourcing platform⁶ was used to collect views from thousands of social and natural scientists, and a special effort was made to reach the younger generation.

20. The prototype report considered hundreds of assessments, including 57 international assessments suggested through the crowd-sourcing Website, 78 national sustainable development reports, 125 flagship publications of the United Nations system, 23 outlook reports prepared by intergovernmental organizations and more than 1,000 academic articles and think-pieces.

⁴ More information available from <http://sustainabledevelopment.un.org/sd21.html>.

⁵ For further information on the methods used, see Matthew J. Salganik and Karen E. C. Levy, "Wiki surveys: open and quantifiable social data collection", 2 February 2012. Available from <http://arxiv.org/abs/1202.0500>.

⁶ Inputs were made in Chinese, English and Spanish. In the future, a much wider range of languages might be used.

Contents and outputs

21. The prototype report includes a description of the landscape of sustainable development assessments; an assessment of progress in sustainable development since 1950; an analysis of global sustainable development scenarios (future pathways); a review of measures of progress, including official as well as big data approaches; a review of investment needs; science digests; and, as a special theme, case studies of the nexus between climate, land, energy, water and development in Australia, Brazil, Burkina Faso, Canada, Chile, China, Comoros, Cuba, Germany, India, Jamaica, Tarawa (Kiribati), Lithuania, Madagascar, Mauritius, Qatar, Seychelles, South Africa, the Syrian Arab Republic, Thailand, the United Kingdom, Zanzibar (United Republic of Tanzania), the United States of America and in California (United States), and in the river basins of the Danube and the Nile.

22. In support of the report, the team developed two quantitative models: an open-source global climate-land-energy-water-development model that is being further developed to allow the development of sustainable development goal scenarios; and a stylized integrated tourism model especially suited for small island developing States.³

23. Contributors also provided support to ongoing capacity-building projects, which proved useful as inputs to the report. Others have worked on a geo-database for socioeconomic indicators. Work on quantifying innovative measures of progress continues.

C. Lessons learned for future editions

24. There are thousands of relevant scientific assessments at various temporal and geographic scales. Most of them focus on specific systems and sectors. For example, there are 1,023 assessments in the database of the assessment of assessments on oceans and 182 assessments at multiple scales in the database of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. These lists are growing and have to be updated on a regular basis.

25. Assessments differ greatly in terms of scope, scale, organization, process, participation, resources and perceived policy relevance (see table 1). Three broad groups can be distinguished: intergovernmental scientific assessments; scientific-technocratic assessments; and scientific research collaborations. When asked about their preferred assessment model for future editions of the report, experts typically suggested either the conventional United Nations model for flagship publications, a multi-stakeholder model with national contributions, or the model used by the Intergovernmental Panel on Climate Change. Experts from developing countries tended to be more sceptical of the intergovernmental panel model, in view of its focus on peer-reviewed knowledge dominated by Western journals (accounting for 97% of the references in reports of the Intergovernmental Panel on Climate Change).

Table 1
Typology of international sustainable development assessments

<i>Type</i>	<i>Examples</i>	<i>Description</i>	<i>Link to political process</i>	<i>Participants nominated/selected by</i>	<i>Drafted by</i>	<i>Text approved by</i>	<i>Frequency</i>	<i>Normative or descriptive</i>	<i>Type of knowledge assessed</i>
Intergovernmental scientific assessments	Intergovernmental Panel on Climate Change, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	Regular intergovernmental scientific assessments	Formal	Governments	Scientists	Governments, peers	Regular	Primarily descriptive	Academic, peer-reviewed
	International Assessment of Agricultural Knowledge, Science and Technology for Development	Ad hoc stakeholder, intergovernmental scientific assessment	Formal	Multi-stakeholder bureau	Scientists	Governments	Ad hoc	Primarily descriptive	Academic and traditional/local knowledge of stakeholders
	Global Environment Outlook	Regular United Nations science publication with formal link	Formal	Governments, stakeholders	Scientists guided by United Nations	Peers	Regular	Descriptive and normative	Academic, peer-reviewed, United Nations
	Working Group on the Asian Highway	Intergovernmental United Nations expert group	Formal	Governments	United Nations staff guided by experts	United Nations	Regular	Descriptive	Governments, United Nations, academic, private sector

<i>Type</i>	<i>Examples</i>	<i>Description</i>	<i>Link to political process</i>	<i>Participants nominated/selected by</i>	<i>Drafted by</i>	<i>Text approved by</i>	<i>Frequency</i>	<i>Normative or descriptive</i>	<i>Type of knowledge assessed</i>
Scientific, technocratic assessments	Committee for Development Policy	Standing United Nations expert groups with formal reporting to governments	Formal	Secretary-General	United Nations staff guided by Committee members	Committee	Regular	Normative	Academic, peer-reviewed, United Nations
	High-level Panel on Global Sustainability	Ad hoc initiatives of the Secretary-General	Formal, limited	Secretary-General	United Nations staff guided by Panel	Panel	Ad hoc	Normative	United Nations, governments, academic, non-governmental organizations, stakeholders
	United Nations flagship publications: <i>Global Biodiversity Outlook, World Economic and Social Survey</i> , study on sustainable development in the twenty-first century	United Nations flagship publications, drawing on United Nations expert groups and linked to United Nations process	Formal, weak	United Nations	United Nations staff jointly with experts	United Nations	Ad hoc or regular	Descriptive and normative	Academic, non-governmental organizations, United Nations, government, stakeholders

<i>Type</i>	<i>Examples</i>	<i>Description</i>	<i>Link to political process</i>	<i>Participants nominated/selected by</i>	<i>Drafted by</i>	<i>Text approved by</i>	<i>Frequency</i>	<i>Normative or descriptive</i>	<i>Type of knowledge assessed</i>
Scientific research collaborations	Global Energy Assessment	Collaborative collation of scientific knowledge	Informal	Peers	Scientists	Authors, peers	Ad hoc	Descriptive and normative	Academic, peer-reviewed
	Millennium Ecosystem Assessment	Identification of scientific basis and knowledge gaps for action	Non-governmental	Selected by science panel, endorsed by board	Scientists	Peers	Ad hoc	Descriptive and normative	Academic, peer-reviewed, stakeholders
	Census of Marine Life; Future Earth Initiative	Collaborative scientific research programme	Non-governmental	Peers	Scientists	Authors, peers	Ad hoc	Descriptive	Academic, own research

26. Many countries and some regions have established processes to prepare sustainable development reports, many of which are supported by local scientific communities and feature local priorities. Hence, a bottom-up approach for the global report would benefit from such rich and diverse local policy-relevant knowledge.

27. Crowdsourcing proved a useful tool to identify new and emerging issues that scientists recommend decision makers consider for action. The issues identified differed significantly from issues highlighted in the ad hoc expert group meetings and from issues identified by young researchers. Hence, for a balanced result, the global report may want to allow for a wide range of participation through multiple channels and feature a wide range of perspectives. However, crowdsourcing has its limitations. Protocols for evaluating non-conventional sources of scientific knowledge might be needed.

28. The review of sustainable development progress provided evidence that impressive gains in some areas have come at the expense of worsening trends, in other areas, in recent decades. Integrated assessment is therefore needed to monitor the interlinkages between issues and themes.

29. Scientific assessments of progress can sometimes lead to rather different results compared to institutional assessments of progress against agreed goals or commitments. Both are important but different in nature. Hence, a traditional monitoring report focused on progress towards sustainable development goals might not by itself strengthen the science-policy interface.

30. Views differ across governments, civil society groups, academia and the public on the progress made, remaining gaps and ways forward towards sustainable development. Some of the differences arise from the adoption of different system boundaries and timescales, ranging from current, local actions all the way to the Earth's biota and a perspective of thousands of years. Interactions between system boundaries and timescales are non-trivial, and, in fact, policy recommendations derived from short-run and narrower approaches are often contradictory to those predicated on long-run, broader considerations.

31. A global scale and the time frame of the next two generations until 2050, together with intermediate milestones, has proven to be a reasonable choice for addressing, in an intergenerationally equitable way, many of the issues on the sustainable development agenda, such as eliminating poverty and hunger; enabling livelihoods; feeding, nurturing, housing and educating the world's population; securing peace, security and freedom; and preserving the Earth's life support systems.

32. Separate assessments and goals already exist for all the thematic areas currently on the agenda of the Open Working Group of the General Assembly on Sustainable Development Goals. However, an integrated assessment is lacking that could identify alternative future pathways that resolve trade-offs and build synergies between policy actions. In this context, scenarios can be useful and help in reducing uncertainties over the required levels of investment and international cooperation for achieving the sustainable development goals. Hence, the report might promote in-depth cooperation on sustainable development scenarios.

33. Scientists and United Nations entities have promoted a long list of sectoral and aggregate indicators. They have been developed with different objectives and

organizational interests in mind. In particular, there has been no agreement on a comprehensive, aggregate indicator of sustainable development progress that might complement gross domestic product (GDP). Remote sensing and other big data approaches, beyond official statistics, show strong potential for assessing long-term sustainable development progress at various spatial and temporal scales, especially in the poorest parts of the world, where official data is scarce.

34. Selected science digests might be a useful way to involve scientists in highly specialized fields to engage in the broader science-policy interface in the context of the high-level political forum.

35. Case studies of the nexus between climate, land, energy, water and development illustrate the benefits of integrated approaches focusing on issue clusters rather than sectors or themes. They can help in identifying innovative and better solutions. As the “right” cluster of issues for integrated policy is case-specific, future editions of the report might analyse and identify other important issue clusters. Looking at these issues in an integrated way may support efforts for more integrated decision-making.

III. Response to the questionnaire on the scope and methodology for a global sustainable development report

36. Responses to the questionnaire on the scope and methodology for a global sustainable development report were received from China, Costa Rica, Croatia, the European Union, Indonesia, Japan, Jordan, the Russian Federation, Switzerland, Tunisia, and the United Kingdom, from the European Union and from the Committee for Development Policy, ECLAC, ESCAP, UNCTAD, UNEP and WMO.⁷ In addition, related inputs were considered from experts and United Nations partners who participated in expert group meetings that were convened in support of the report in 2013,⁸ including written responses from the secretariat of the Convention on Biological Diversity and from ECE, FAO, IAEA, UNEP and UNESCO.

A. Overall direction

37. In their responses to the questionnaire, a number of Member States and United Nations entities provided guidance on the overall direction for the report.

Added value

38. Member States emphasized the need for the report to be complementary to and to add value to existing processes and United Nations reports. In particular, a synthesis report is expected to add value and provide improved access to the

⁷ The questionnaire and the full text of the responses are available online at <http://sustainabledevelopment.un.org/globalsdreport/>.

⁸ Inter alia, the expert group meeting for a global sustainable development report — engaging national assessments (Beijing, 12 and 13 December 2013) and the expert group meeting on sustainable development assessments (New York, 3 and 4 September 2013), more information available from <http://sustainabledevelopment.un.org/globalsdreport>.

findings of a large number of existing assessments and to highlight synergies and trade-offs between actions taken in various settings.

39. As an integrated assessment of assessments, the report is expected to become a useful instrument for the high-level political forum, especially in agenda-setting and in the context of the sustainable development goals and/or post-2015 development framework. The preparation process for the report is expected to foster collaboration among analytical teams in the United Nations system, including the Bretton Woods institutions.

Focus and integration

40. Member States suggested focusing on the implementation of sustainable development and specifically the sustainable development goals and/or post-2015 development agenda, providing lessons learned and identifying good practices and challenges.

41. The emphasis should be on interlinkages between issues and on tools to address them in an intergenerationally equitable way. This might include, in particular, a cross-sectoral analysis of progress made, obstacles encountered and potential integrated policy options.

Capacity needs

42. The availability of data and analysis capacity of high quality remains an issue, especially in developing countries, and lessons are available from existing assessments in this regard. Member States envisaged a consultative, participatory process that would require building data and analysis capacity for integrated assessments and future scenarios. A joint United Nations effort would be needed to address and monitor the availability and quality of data and analytical methodologies.

Role of the report in the high-level political forum and post-2015 development agenda

43. In line with the General Assembly resolution [66/288](#), Member States envisaged that the report would bring together the findings of scientific assessments as input for the policy deliberations at the high-level political forum. The report might have an important monitoring and accountability function and should be policy-relevant, but not make specific policy recommendations. Some Member States also envisaged the report becoming one of a number of contributions to supporting implementation of the future sustainable development goals and post-2015 development agenda.

Audience

44. The audience would comprise policymakers, notably at the highest level, senior government officials, the United Nations system and a wide range of stakeholders.

B. Scope

Preferred scope in terms of issue focus

45. Many respondents suggested capturing the priority issues identified in the Rio process, including Agenda 21 and the outcome document of the United Nations Conference on Sustainable Development, as well as in other important internationally agreed goals and commitments.

46. Most respondents had a clear preference for a science-based, yet practical report that identifies policy solutions and supports the deliberations of the high-level political forum, as well as the implementation of future sustainable development goals and the post-2015 development agenda. The report would focus on identifying opportunities and challenges/obstacles to progress in sustainable development, and acknowledge the different priorities and capabilities of countries. Many respondents expected a focus on global issues to be considered by the forum, including new and emerging issues, whereas others suggested highlighting national and regional priorities.

47. One Member State suggested four sections for the report: landscape, review of progress, opportunities and challenges, and policy recommendations. The analytical focus should be on the interaction among economic, social and environmental dimensions, on key drivers of change, and on clusters of closely interlinked issues (e.g., the nexus between food, water and energy). Most would like the report to present good practices of integrated policies and some would also like to see in-depth sectoral analyses.

48. Many respondents expected an empirical analysis of progress on the means of implementation. In particular, the report could present good practices in leveraging financing, technology, trade, capacity-building, international cooperation and multi-stakeholder partnerships. Some suggested reviewing existing mechanisms in support of sustainability and highlighting their advances or failures at different levels and timescales, including an analysis of the efficiency, effectiveness and financial and technical contributions of the institutional framework to support the achievement of the Millennium Development Goals and sustainable development goals.

49. In addition, a number of specific issues were suggested for inclusion: poverty eradication; inclusive growth; the sustainable management of natural resources (water, energy, biodiversity, land use and soil protection); sustainable consumption and production patterns; terrestrial and marine ecosystems management; climate change; sustainable development goals; international technical and financial cooperation; technology transfer; health; the nexus between resilience, adaptation, sustainability and development; decision-making tools; and enhancing preparedness and building resilience.

Geographic scope

50. Most respondents agreed that the report should have both a global and a regional geographic scope, that it should be based on national reporting and make use of the regional commissions, at the regional level, and take into account the differences between developed and developing countries. Most respondents suggested the Department of Economic and Social Affairs continue coordinating the

global scope and the regional commissions assist with regional sections of the report.

51. Many suggested including analysis for country groups, for example, countries in special situations or with high vulnerability (e.g., small island developing States, the least developed countries, landlocked developing countries, countries in sub-Saharan Africa) and/or for country groups categorized by development stage (e.g., developing countries, developed countries, economies in transition) or by income (e.g., high-, middle- and low-income countries).

52. In view of the fact that global issues need to be addressed nationally and locally, many also suggested reporting on trends and experiences at the national and local levels, based on countries' own national sustainable development reports.

Time horizon

53. Most respondents recommended the report adopt a long-term, transformative vision, while using a pragmatic, flexible approach to match the different timescales of sustainable development issues. Some defined long term as a time horizon of 20 to 30 or 50 years. In particular, it was suggested that the report cover milestones in or around 1992, to the present day, 2030 and 2050, in order to reflect progress since Agenda 21, the current situation and future orientation. Other respondents suggested adopting the time horizon of the future sustainable development goals. A particular focus, for a given report, might be on the period of 4 to 5 years preceding the preparation of that report.

54. Interlinked sustainable development issues operate at widely different, but interacting, geographic and timescales.

Scope of scientific knowledge

55. Respondents suggested establishing a scientific, coherent and robust assessment framework. The report might comprise an easily readable executive summary and a detailed scientific analysis covering all dimensions of sustainable development.

56. One group of respondents suggested including different types of knowledge, ranging from peer-reviewed literature and existing international assessments to local and multi-stakeholder knowledge, reflecting the perspectives of scientific communities and users of scientific research around the world. Another group of respondents recommended an exclusive focus on peer-reviewed scientific information and research.

Key national, regional and global priority issues to be reflected in the report

57. Global priority issues to be reflected in the report should be linked to global challenges, such as those highlighted in Agenda 21, General Assembly resolution 66/288 and in the future sustainable development goals and post-2015 development agenda. The report would focus on policy coherence, integrated policy, interlinkages and implementation challenges at all levels.

58. Regional priority issues should be defined by each of the regions and national priority issues identified in national development strategies. Member States could

each highlight the most important tasks, from their national perspective, which could then be reflected in the report.

59. Respondents generally supported a focus on the global aspiration for the next two generations to eliminate poverty and hunger; to feed, nurture, house and educate 9 billion people by 2050; to secure inclusive growth, equity and development; and to preserve the Earth's life support systems. In particular, respondents specifically referred to the following priority issues: poverty and hunger eradication; wealth creation; agriculture, food security and nutrition; sustainable consumption and production; resource intensity; employment and decent work; jobless growth; inclusive growth and income distribution; social equity and security; education and learning; health and sanitation; population; financing; official development assistance; international debt management; trade; a green economy; science and technology innovation; access to and transfer of technologies; urbanization; energy; water; climate change; land use and soil protection; forests; oceans and seas; marine protection and fishing; ocean acidification; biodiversity and ecosystems; housing; sustainable tourism; waste management; infrastructure development; transport; universal access to safe water, sanitation, sustainable energy, quality education and health-care services; equality; social protection; resilience to the impact of climate change; disaster risk reduction; resilient buildings and communities; urbanization; slums; land use; land degradation; desertification, drought and deforestation; the nexus between environment, poverty and inequality; resource management; mining; macroeconomics; pricing; barriers and disincentives to sustainable industrialization; intergenerational equity and welfare systems; governance and institutions; ecological-civilization society; and peace and security.

Role of the report in identifying new and emerging issues

60. All respondents saw a role for the report in identifying and addressing new and emerging issues, through sound scientific evidence, assessments and forward-looking projections, taking into account ongoing discussions in other relevant United Nations forums. Some even believed this role to be imperative. Others emphasized the need for political independence and objectivity of the report and believe that it should not be considered the only source for such analysis. Even those that wanted the report to focus primarily on implementation believe that it would most probably need to raise new and emerging issues in the process of identifying barriers to progress.

61. In this context, respondents noted a range of unexpected changes and shocks that typically lead to new and emerging issues. Examples include economic and financial crises, natural disasters and social and political instability.

62. Many respondents suggested identifying new and emerging issues through a combination of analysis of existing assessments and peer-reviewed literature; expert surveys; multi-stakeholder inputs from scientific communities, government officials, decision makers and civil society (e.g., using crowdsourcing and local knowledge); analysis of international agreements, commitments and meeting outcomes; and country-level consultations.

63. At the same time, several respondents emphasized that the identification of new and emerging issues has to be based on sound scientific evidence. Others suggested a process whereby each country would identify its emerging priority

issues, based on evidence, followed by agreement within the high-level political forum on a list of emerging issues for the purpose of agenda-setting.

Type of content

64. Most respondents suggested capturing past and future trends, policy lessons and scientific findings indicating potential areas for policy action, in order to enable evidence-based decision-making within the high-level political forum. A particular focus might be determined for each edition of the report.

65. The report should provide policy-relevant advice, not policy recommendations as such. It should indicate how interlinkages can be addressed and what the leverage points and gaps are for the implementation of the sustainable development goals and the post-2015 development agenda.

66. It might showcase good practices and innovative policies, plans, programmes, initiatives and technologies concerning sustainable development from around the world, and identify the criteria and conditions that enable success in such endeavours. Some suggest emphasizing both successful and unsuccessful national cases and capturing the institutional and political dimensions.

67. The report is expected to feature scientific findings indicating potential areas for policy action. In this regard, it should take into account the work of independent scientific advisory groups and cooperate with assessment initiatives.

Monitoring and accountability framework for the sustainable development goals and the post-2015 development agenda

68. Most respondents envisaged the report being part of or contributing to the monitoring and accountability framework for the future sustainable development goals and the post-2015 development agenda. They also expected the report to engage a broad range of stakeholders. However, several respondents who favoured this approach think that a decision in this regard would be premature, as the post-2015 framework will not be decided before 2015.

69. One Member State outlined potential elements of a larger monitoring and accountability framework for the post -2015 development agenda:

(a) National reporting by countries and national stakeholders. A synthesis of lessons learned based on national reviews of sustainable development commitments could inform the global sustainable development report submitted to the meeting of the high-level political forum convened under the auspices of the General Assembly, every four years;

(b) Monitoring of targets and indicators of the sustainable development goals and/or post-2015 development agenda at the international level, which would likely be the role of an enlarged inter-agency report coordinated by the United Nations Development Group, as successor to reporting on the Millennium Development Goals;

(c) Sectorial in-depth reporting, as carried out by specialized agencies and others, such as the Intergovernmental Panel on Climate Change, ILO, UNEP and the Global Environment Outlook, the World Health Organization (WHO), and others;

(d) Analysis of interlinkages, data availability, the science-policy interface and other aspects which could be the primary role of the global sustainable development report.

70. Another respondent suggested having a separate accompanying report on monitoring and accountability, which would be summarized in the main report.

71. Several respondents emphasized the intergovernmental nature of the processes, driven by Member States, under the auspices of the General Assembly leading up to the sustainable development goals and the post-2015 development agenda. Against this background, they suggested that the report might be used by such processes, but that it would not be part of a monitoring framework. Instead, the report's primary function would be to support the deliberations of the high-level political forum, which provides political leadership and facilitates sustainable development implementation at the global level.

Periodicity of the report

72. Respondents differed in terms of preferred periodicity of the report, ranging from a report every year to one every 5 years. However, those that favoured a multi-year cycle, with an in-depth report to be prepared every 4 or 5 years, suggest intermediate and/or focused reports every year (or every 2 years), in order to support all meetings of the high-level political forum.

73. Most respondents suggested an in-depth report be produced every 4 years, to coincide with the convening of the forum under the auspices of the General Assembly. The periodicity must be based on the needs of the forum and the post-2015 development agenda and take into account national reporting capacities. In particular, respondents suggested additional reports could be drafted in response to unpredictable circumstances that have a major impact on work relating to sustainable development.

74. Those who would like to see monitoring and accountability included in the role of the report suggested more frequent updates on quantitative indicators, once or twice each year.

75. Some suggested adjusting the periodicity of reports and assessments that would contribute to the main report, such as the Global Environment Outlook report, which is currently produced every 5 years.

C. Methodology

Preparation of the global report

76. Most respondents expected an important role for the United Nations system in the preparation of the report. They suggested a joint United Nations system effort (including the Bretton Woods organizations), coordinated by the Division for Sustainable Development in its role as secretariat for the high-level political forum. In particular, some respondents suggested the chief scientists (or equivalent) of relevant United Nations entities should collaborate in the preparation process (for example, those of the Department of Economic and Social Affairs, of FAO, ILO, the United Nations Development Programme (UNDP), UNESCO, UNEP, UNIDO and WHO and of the secretariats of the Rio Conventions). The regional commissions should coordinate consultative meetings to prepare regional reports as input for the

global report. Some welcomed the preparation of the prototype edition as a good general direction for future editions of the report.

77. Many suggested that national focal points be part of the process, in one form or another, and emphasized the need for technical support from the United Nations for developing countries. Some suggested encouraging the preparation of national sustainable development reports for synthesis at the regional and global levels, whereas others preferred the report to be drafted by scientists chosen by Member States or the Secretariat.

78. The report would build on existing reports and assessments, such as those mentioned in the prototype edition of the report, including national sustainable development reports, United Nations publications and international assessments. Many respondents suggested a multi-stakeholder process engaging scientists, experts, governments and civil society in undertaking analysis and assessments, possibly through joint working groups.

79. Transparency and fairness of the process was seen as essential, including in terms of selection of the experts. The report should undergo a peer review process by scientists, policymakers and other relevant stakeholders. Data collection should be made through platforms spanning the global, regional, national and local levels and engage international scientific platforms.

Choosing the thematic focus of a given edition of the report

80. Many respondents suggested the thematic focus of a given edition of the report be related to or coincide with the theme of the relevant meeting of the high-level political forum. While some respondents suggested the forum should choose the thematic focus, others preferred a multi-stakeholder process, within the forum, which would include Member States, relevant United Nations entities, civil society and regional consultations. Another suggestion is for the Secretariat to carry out a multi-stakeholder survey, the results of which would be considered and prioritized by Member States.

Principles

81. Respondents suggested the report should follow the spirit of the Rio Principles and of other internationally agreed principles. They further suggested using the same principles and methods which are being used for the preparation of other United Nations reports, including the objectivity and political independence of conclusions, as well as a balanced reflection of country- and region-specific information and data.

82. In particular, respondents recommended the following guiding principles for the report: universality; legitimacy; representativeness; common but differentiated responsibilities; uniformity; comparability; objectivity; accuracy; transparency; inclusivity; balance; accountability; clarity; accessibility; leadership by example; continuous improvement; and the right of each country to decide on their own development pathways. They emphasized the need for adequate funding and suggest an integrated, scientific approach, timely information and multi-stakeholder perspectives. Research presented should be replicable and verifiable; hypotheses must be tested; and analytical work should be peer-reviewed. Member States

expressed a clear preference for a policy-relevant, but not policy-prescriptive, report that is aligned with public policy needs.

83. Legitimacy of the report at the global level would require that the scientific organizations or the scientific advisory mechanisms involved are representative of the scientific community worldwide; preferably already have some track record of providing scientific advice to policymaking bodies; and that the functioning of the organization and/or the process is fully transparent. Making participation in science-policy processes open, inclusive and geographically balanced was seen as indispensable for ensuring a politically legitimate product.

Scientific methods

84. Many respondents agreed that the prototype edition that was presented at the first meeting of the high-level political forum, in September 2013, provided a useful basis on the methodological side for future editions. They suggested adopting a multidisciplinary, integrated approach in the spirit of sustainability science and drawing on a multitude of sources and data. Respondents also suggested learning from existing international assessments and allowing scientists and Member States the flexibility to choose the relevant methods on a case-by-case basis.

85. Respondents specifically recommended considering the following elements: the reporting of both scientific and official data, in order to create greater buy-in from stakeholders, experts and government representatives; statistical analysis and evaluation of past and future trends; global sustainable development scenario models to analyse trade-offs across policy objectives; inductive and empirical methods, using quantitative and qualitative data; sustainable development indicators; backcasting; a likelihood approach and capturing uncertainties.

Organization of input from national and regional contributions

86. As regards the best way to organize national and regional contributions, respondents fell into two groups, with different views. However, both groups agreed that the process would combine research, analysis and consultations.

87. One group emphasized the need to make use of existing structures, avoiding the creation of new focal points and preparatory processes. In their view, the existing networks and focal points could facilitate discussions and consultations at all levels and would allow for external expert participation.

88. The other group would like to see the establishment of a targeted network of national and regional focal points and/or experts, who would be nominated by governments. Regular consultations with the focal points would ensure the consideration of stakeholder inputs from around the world. The focal points would gather data, review progress and conduct focus group discussions. Some would like to see a model similar to the Intergovernmental Panel on Climate Change, in which the nominated experts would meet regularly and draft the report.

89. Many respondents in the second group suggested countries and regions should develop their own national and regional sustainable development reports, on a voluntary basis, as input for the global report. In this model, the United Nations system would provide capacity-building and technical support. The regional commissions would organize regional consultations. Existing national sustainable

development councils or similar committees in charge of the implementation of sustainable development would play an important role.

90. Some also suggested organizing a participatory process to define a template and web-based toolkit for national reporting, for consideration by Member States and supported by United Nations capacity-building efforts.

Proposed concrete steps to involve scientists from a wide range of countries and regions

91. Respondents suggested a number of concrete actions. For example, the Secretariat might want to request countries to nominate candidates to the writing team for the report, which would ensure consideration of the views of scientific communities, practitioners and policymakers. Others suggested using existing mechanisms of government consultation with civil society in order to seek policy advice and to create scientific forums around specific policy questions in support of the report.

92. Several respondents also suggested various institutions, communities or networks to be mobilized for the report, such as the existing networks of national academies of science; networks of scientific institutions; scientists among United Nations staff; the Scientific Advisory Board of the Secretary-General; United Nations system networks and communities; the Future Earth Initiative; the Indonesian Institute of Sciences; the Joint Research Centre of the European Commission; the Sustainable Development Solutions Network; and statistical offices.

93. Several respondents suggested involving all sectors and major groups identified in Agenda 21, including the United Nations system; planning agencies; prominent universities, research institutes and think tanks; professional societies; scientific associations; civil society and opinion makers; experts and scientists from national academia and line ministries; independent scientists; civil society networks; knowledge exchange platforms, and research and development institutions in the private and public domains.

Scientific advisory group or working group

94. While respondents agreed on the usefulness of some kind of scientific advisory group, or working group, to provide overall guidance, they expressed different views on the composition and expected role of the group.

95. Some believed that the existing networks of national academies of sciences would best serve the role of an advisory group and also be the appropriate mechanism to peer review the report. Others would prefer the group of chief scientists of relevant United Nations entities to play an important role and envisage a scientific advisory board under the auspices of the Department of Economic and Social Affairs, FAO, ILO, UNDP, UNESCO, UNEP, UNIDO, WHO and the secretariats of the Rio Conventions, that would be closely related to the high-level political forum. Some respondents emphasized the need for a mix of representatives from governments, the United Nations system and representatives of civil society and academic institutions. Still others would like to see an involvement of the Scientific Advisory Board of the Secretary-General.

96. Another group of respondents would like to see stronger ownership by Member States. They encouraged the Secretariat to consider establishing a working group of experts nominated by governments. In particular, they suggested following the practice of the Open Working Group on the Sustainable Development Goals, in order to take fully into account geographical balance and representation. The United Nations system and other international organizations could provide inputs to the draft and the working group of experts would arrange meetings to interact with stakeholders on a regular basis.

97. In another variant of the approach with national focal points, driven by Member States, each country would establish a national scientific advisory committee that could be involved in national and global reports, for which the United Nations would provide technical assistance.

National sustainable development report processes

98. Many respondents would like to see voluntary national sustainable development report processes and national experiences featured in the report. However, there is a link to future decisions of the high-level political forum, including on regular reviews on the follow-up and implementation of commitments and objectives and the registry of voluntary commitments.

99. There are different options available, which have to reconcile the needs for flexibility, streamlined reporting and national consultations. Respondents suggested the national reports become building blocks of an international reporting system. An advisory group might guide the preparation of the national reports, which would address the sustainable development goals and/or the post-2015 development agenda and all areas of the national sustainable development strategy. Developing countries should receive capacity-building support. National processes might include interministerial dialogues.

How should the report inform the work of the high-level political forum?

100. Many respondents suggested the report be integrated into and provide scientific evidence to the deliberations of the high-level political forum, in order to enhance the science-policy interface for sustainable development. They would like to see the forum consider the method of integration and to decide what role and follow-up it would see for future reports.

101. The report should play a role in providing the forum with scientific knowledge in an easily comprehensible way. It could be utilized by the forum as a source of scientific analysis for setting its agenda, but it would not be the only agenda-setting input.

102. Many respondents expected the report to provide scientific analysis of issues on the agenda of the forum, provide evidence in support of the forum's decision-making and follow-up analysis, disseminate forum activities, channel feedback from the international community, and carry out scientific monitoring of the future set of post-2015 development goals.

IV. Recommendations

103. As outlined above, Member States, the United Nations system and many scientists already agree on many of the elements that define the scope and methodology for a global sustainable development report. The elements are summarized in table 2 and could be considered as part of the way forward.

Table 2
Common elements of agreement on the scope and methodology for the report

<i>Element</i>	<i>Agreement</i>
Added value	Easy access for decision makers to findings of many scientific assessments. Highlight synergies and trade-offs between policy actions in various settings
Focus	Focus on implementation, obstacles to progress, good practices of integrated policy
Capacity needs	Joint United Nations effort to support the participation of developing countries
Audience	Policymakers, senior government officials and wide range of stakeholders
Scope in terms of issue focus	Priority issues identified in the Rio process, including Agenda 21, General Assembly resolution 66/288 and other internationally agreed goals and commitments. Supports the high-level political forum and implementation of future sustainable development goals and the post-2015 development agenda
Geographic scope	Global and five United Nations regions, with analysis for groups of countries in special situations
Time horizon	Medium- (10 years) to long-term (20 to 50 years)
New and emerging issues	Identification of issues based on sound scientific evidence
Coordination of report process	United Nations task team coordinated by the secretariat of the high-level political forum (Division for Sustainable Development) at the global level and by the regional commissions at the regional level
Type of content	Past and future trends; lessons learned; scientific findings indicating potential areas for policy action; opportunities and challenges for implementation
Periodicity	In-depth report every four years coinciding with meetings of the high-level political forum convened under the auspices of the General Assembly, and focused report contribution for the meetings of the forum under the auspices of the Economic and Social Council
Normative or descriptive	Policy-relevant content and options, but no normative policy recommendations

<i>Element</i>	<i>Agreement</i>
Monitoring and accountability framework for sustainable development goals/post-2015 development agenda	The report could possibly become one of several contributions to the framework. Details are to be decided after 2015
Scientific methods	Multidisciplinary, integrated approach in the spirit of sustainability science. Precise methods to be decided by scientists, but prototype report illustrates a useful basis regarding the methodology for future editions
How to inform the work of the high-level political forum	The report could become one of several inputs to be integrated into and provide scientific evidence for the deliberations of the high-level political forum

104. **Taking into account the different views on a number of elements, the following options could be considered (see table 3):**

(a) **Option 1: conventional United Nations model for flagship publications;**

(b) **Option 2: multi-stakeholder model linked to voluntary national processes;**

(c) **Option 3: intergovernmental panel on sustainable development.**

105. **Option 1 would follow the conventional approach for United Nations flagship publications. The report would be drafted by United Nations staff, who would also select experts for ad hoc contributions. Knowledge inputs comprise peer-reviewed literature and United Nations system expertise. The report would be peer-reviewed internally and approved by senior management of the United Nations. Inputs from Member States and stakeholders would be based on ad hoc requests and based entirely on existing United Nations structures, including those of the regional commissions. Advantages of option 1 include its low cost (it could be implemented within existing resources), quick turnaround times, new structures or working methods would not be needed, and the representation of a wide range of perspectives would be included. Disadvantages include limited consultations, weak linkages to existing assessments and initiatives and a potential for overlapping activities.**

106. **Option 2 would go further in terms of involving stakeholders and linking to voluntary national reviews. The report would be drafted by a team of United Nations staff comprising all members of the expanded Executive Committee on Economic and Social Affairs, with contributions from scientists, government officials and stakeholders. The report would undergo an external, multi-stakeholder peer-review process and be approved by senior management of the United Nations and/or a multi-stakeholder advisory group. Advice would be provided by representatives of academia, major groups, the United Nations system and other international organizations. This might include the chairs of major international assessment initiatives (e.g., the Intergovernmental Panel on Climate Change, the Intergovernmental Science-Policy Platform on Biodiversity**

and Ecosystem Services), research programmes (e.g., the Sustainable Development Solutions Network, the Future Earth Initiative), and academies of sciences (e.g., the World Academy of Sciences for the advancement of science in developing countries, prominent national academies); representatives of major groups (ICSU, the International Social Science Council and the World Business Council for Sustainable Development); and young scientists; chairs of key United Nations groups (e.g., the Committee for Development Policy, the London Group on Environmental Accounting, the Scientific Advisory Board, Sustainable Energy for All, the Global Environment Outlook board); representatives of key United Nations reports and outlooks (regional commissions, UNCTAD, UNDP, UNESCO, UNEP, the secretariats of the Convention on Biological Diversity and of the United Nations Framework Convention on Climate Change, the World Bank and the International Monetary Fund); and representatives of relevant non-United Nations organizations (the South Centre, the Organization for Economic Cooperation and Development, regional development banks, the European Commission). Regional commissions would be encouraged to hold regional consultations and prepare contributions to the report. Existing national processes and/or voluntary national reviews in the context of the high-level political forum would become important partners. Most activities under option 2 could be implemented within existing resources with in-kind contributions, but additional resources might be needed for the participation of experts and capacity support to ensure effective participation of developing countries. Advantages include greater legitimacy, moderate cost and strong links between international assessments, national reviews and policymaking. Disadvantages include longer turnaround times due to extensive consultations and limited acceptance by certain scientific communities.

107. Option 3 follows a model similar to the Intergovernmental Panel on Climate Change, in which Member States would nominate scientific experts to a writing team, which would draft the report, to be adopted by Member States. Cooperation agreements might be sought with the bureaus of existing assessment initiatives. Lessons learned from reviews of the Intergovernmental Panel could be taken into account in the design of a panel. In particular, there might be a need to compensate authors for their contributions, in order to avoid conflicts of interest. Advantages of option 3 include a larger mobilization of scientific communities and of resources, and an institutionalized science-policy interface. Disadvantages include a higher cost (similar to those of other intergovernmental panels), inertia in the process as a result of the very large number of scientists involved, as well as the fact that the consensus model based on peer-reviewed literature, followed by the Intergovernmental Panel, would not necessarily encourage the presentation of emerging issues or diverse views.

Table 3
Overview of differences between the three options

<i>Element</i>	<i>Option 1: conventional United Nations model for flagship publications</i>	<i>Option 2: multi-stakeholder model linked to voluntary national processes</i>	<i>Option 3: intergovernmental panel on sustainable development</i>
Report drafted by	United Nations staff	Team of United Nations staff with contributions from scientists, government officials and stakeholders	Scientists nominated by Member States
Experts selected by	United Nations staff	United Nations staff, assessment initiatives, member States, major groups	Member States
Peer review by	Internal to United Nations system	External, multi-stakeholder peer review (open process) including the United Nations system	Peer review by participating scientists and external academic reviewers
Report approved by	Senior management of the United Nations	Senior management of the United Nations and/or multi-stakeholder advisory group	Member States
Scope of scientific knowledge	Peer-reviewed literature and United Nations system knowledge	All kinds of knowledge	Peer-reviewed literature
Regional priority issues identified by	Regional consultations coordinated by regional commissions	Multi-stakeholder regional consultations coordinated by regional commissions	Scientists
National priority issues identified by	Responses by Member States to United Nations questionnaires	Voluntary, national consultations coordinated by Member States and supported by United Nations capacity-building	Scientists
How to organize national and regional contributions	Desk study conducted by United Nations staff and inputs through ad hoc requests by the United Nations for inputs. Based on existing structures	Based on existing structures, using existing focal points or channels for nominations. Organized by interested Member States with capacity support from the United Nations system	New, formal group of scientists nominated by Member States
Choosing thematic focus of each edition	Senior management of the United Nations	High-level political forum, in consultation with scientists and stakeholders	High-level political forum
National sustainable development process	No direct link	Partly based on voluntary processes and reports	No direct link

<i>Element</i>	<i>Option 1: conventional United Nations model for flagship publications</i>	<i>Option 2: multi-stakeholder model linked to voluntary national processes</i>	<i>Option 3: intergovernmental panel on sustainable development</i>
Scientific advisory group or working group	Internal to the United Nations with ad hoc external contributions	Multi-stakeholder group, including representatives of academies of sciences, the Scientific Advisory Board, the Committee for Development Policy, and of key international assessments	New group of scientists nominated by governments
