

Summary of the 52nd Session of the Intergovernmental Panel on Climate Change: 24-28 February 2020

The 52nd session of the Intergovernmental Panel on Climate Change (IPCC-52) concluded on Friday evening, after agreeing on an outline for the Synthesis Report of the Sixth Assessment Report. The outline, which was discussed throughout the week and was the subject of contact group discussions on the penultimate evening and last day of IPCC-52, contains a stage-setting introduction and three sections: Current Status and Trends; Long-term Climate and Development Futures; and Near-term Responses in a Changing Climate. Some of the more contentious issues that came up during the discussions on the outline related to the carbon budget, timeframes, just transition, and extreme events and loss and damage, among others.

The Panel engaged in detailed consideration of the organization of future work of the IPCC in light of the Global Stocktake (GST) under the Paris Agreement, on which views diverged over a range of options regarding possible alignment of IPCC and GST cycles. Some questioned the need for discussing an alignment at this point, while others suggested other ways of promoting timely inputs to the GST.

The Panel also adopted the IPCC Gender Policy and Implementation Plan, which, among other things, establishes a Gender Action Team to oversee and monitor implementation of the Plan and develop and implement a protocol and process for addressing complaints.

The Panel considered reviewing the Principles Governing IPCC Work, and whether to establish a task team to consider which elements might need reviewing, but participants did not agree on a review process, and the Panel will consider recommendations forwarded by the Bureau at IPCC-53.

IPCC-52 convened from 24-28 February 2020 in Paris, France, and brought together more than 130 participants from 113 countries.

A Brief History of the IPCC

The IPCC was established in 1988 by the World Meteorological Organization (WMO) and the UN Environment Programme (UNEP) to assess, in a comprehensive, objective, open and transparent manner, the scientific, technical, and socio-economic information relevant to understanding human-induced climate change, its potential impacts, and adaptation and mitigation options. The IPCC is an intergovernmental and scientific body with 195 member countries. It does not undertake new research or monitor climate-related data; rather, it conducts

assessments of the state of climate change knowledge on the basis of published and peer-reviewed scientific and technical literature. IPCC reports are intended to be policy relevant, but not policy prescriptive.

The IPCC has three Working Groups:

- Working Group I (WG I) addresses the physical science basis of climate change.
- Working Group II (WG II) addresses climate change impacts, adaptation and vulnerability.
- Working Group III (WG III) addresses options for reducing greenhouse gas (GHG) emissions and mitigating climate change.

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Each WG has two Co-Chairs and seven Vice-Chairs, with the exception of WG II, which has eight Vice-Chairs. The Co-Chairs guide the WGs in fulfilling their mandates given with the assistance of Technical Support Units (TSUs).

In addition, the IPCC also has a Task Force on National Greenhouse Gas Inventories (TFI), also supported by a TSU, to oversee the IPCC National Greenhouse Gas (GHG) Inventories Programme. The Programme's aims are to develop and refine an internationally-agreed methodology and software for calculating and reporting national GHG emissions and removals, and to encourage its use by parties to the UN Framework Convention on Climate Change (UNFCCC).

The Panel elects its Bureau for the duration of a full assessment cycle, which includes preparation of an IPCC assessment report that takes between five and seven years. The Bureau is composed of climate change experts representing all regions, and includes the IPCC Chair and Vice-Chairs, WG Co-Chairs and Vice-Chairs, and TFI Co-Chairs. The IPCC has a permanent Secretariat, which is based in Geneva, Switzerland, and is hosted by the WMO.

IPCC Products

Since its inception, the Panel has prepared a series of comprehensive assessment reports, special reports, and technical papers that provide scientific information on climate change to the international community.

The IPCC has produced five assessment reports, which were completed in 1990, 1995, 2001, 2007, and 2014. The Sixth Assessment Report (AR6) is expected to be completed in 2022. The assessment reports are structured in three parts, one for each WG. Each WG's contribution comprises a Summary for Policymakers (SPM), a Technical Summary, and the full underlying assessment report. Each of these reports undergoes an exhaustive and intensive review process by experts and governments, involving three stages: a first review by experts, a second review by experts and governments, and a third review by governments. Each SPM is then approved line-by-line by the respective WG and adopted by the Panel.

A synthesis report (SYR) is produced for the assessment report as a whole, integrating the most relevant aspects of the three WG reports and special reports of that specific cycle. The Panel then undertakes a line-by-line approval of the SPM of the SYR.

The IPCC has also produced a range of special reports on climate change-related issues. The sixth assessment cycle includes three special reports:

- Global Warming of 1.5°C (SR15), which was approved by IPCC-48 in October 2018;
- Climate Change and Land (SRCCL), which was approved by IPCC-50 in August 2019; and
- the Ocean and Cryosphere in a Changing Climate (SROCC), which was approved by IPCC-51 in September 2019.

In addition, the IPCC produces methodology reports, which provide guidelines to help countries report on GHGs. Good Practice Guidance reports were approved in 2000 and 2003, while the IPCC Guidelines on National GHG Inventories were approved in 2006. A Refinement to the 2006 Guidelines on National GHG Inventories (2019 Refinement) was adopted at IPCC-49 in May 2019.

In 2007, the Nobel Peace Prize was jointly awarded to the IPCC and former US Vice President Al Gore, for their work and efforts "to build up and disseminate greater knowledge about

manmade climate change, and to lay the foundations needed to counteract such change."

Sixth Assessment Cycle

IPCC-41 to IPCC-43: IPCC-41 (24-27 February 2015, Nairobi, Kenya) adopted decisions relevant to the sixth assessment cycle. IPCC-42 (5-8 October 2015, Dubrovnik, Croatia) elected Bureau members for the sixth assessment cycle. IPCC-43 (11-13 April 2016, Nairobi, Kenya) agreed to undertake two SRs (SRCCL and SROCC), and the 2019 Refinement during the sixth assessment cycle, and, in response to an invitation from the 21st session of the Conference of the Parties to the UNFCCC (COP 21), to prepare an SR in 2018 on the impacts of limiting global warming of 1.5°C above pre-industrial levels (SR15). The Panel also agreed that a special report on cities would be prepared as part of the seventh assessment cycle.

IPCC-44: During this session (17-21 October 2016, Bangkok, Thailand), the Panel adopted outlines for SR15 and the 2019 Refinement, as well as decisions on, *inter alia*, a meeting on climate change and cities.

IPCC Cities and Climate Change Science Conference: This meeting (5-7 March 2018, Edmonton, Canada) produced a research agenda to better understand climate change's impacts on cities and the critical role local authorities can play.

IPCC-45 to IPCC-47: IPCC-45 (28-31 March 2017, Guadalajara, Mexico) approved the SRCCL and SROCC outlines, and discussed, *inter alia*: the strategic planning schedule for the sixth assessment cycle; a proposal to consider short-lived climate forcers (SLCFs); and resourcing options for the IPCC. IPCC-46 (6-10 September 2017, Montreal, Canada) approved the chapter outlines for the three WG report contributions to AR6.

During IPCC-47 (13-16 March 2018, Paris, France), the Panel agreed to, *inter alia*: establish a task group on gender; and draft terms of reference (ToR) for a task group on the organization of the future work of the IPCC in light of the Global Stocktake (GST) under the Paris Agreement.

IPCC-48: During this session (1-6 October 2018, Incheon, Republic of Korea), the IPCC accepted SR15 and its Technical Summary and approved its SPM. A Joint Session of the WGs considered the SPM line-by-line to reach agreement, representing the first instance of the three WGs working together in an interdisciplinary fashion on a special report. The SPM concludes, *inter alia*, that limiting global average temperature rise to 1.5°C is still possible but will require "unprecedented" transitions in all aspects of society.

IPCC-49: During this session (8-12 May 2019, Kyoto, Japan), the IPCC adopted the Overview Chapter of the 2019 Refinement and accepted the underlying report. IPCC-49 also adopted decisions on the terms of reference for the Task Group on Gender, and on a methodological report on SLCFs to be completed during the seventh assessment cycle.

IPCC-50: During this session (2-7 August 2019, Geneva, Switzerland), the IPCC accepted the SRCCL and its Technical Summary and approved its SPM. A Joint Session of the WGs, in cooperation with the TFI, considered the SPM line by line to reach agreement.

IPCC-51: This session (20-24 September 2010, Monaco) saw the acceptance of the SROCC and its Technical Summary, and approval of its SPM, following line-by-line approval by a Joint Session of WGs I and II.

IPCC-52 Report

IPCC-52 opened on Monday morning, 24 February 2020. Audrey Azoulay, UNESCO Director-General, welcomed the IPCC to the UN Educational, Scientific and Cultural Organization (UNESCO), emphasizing the role of education, science, and culture in addressing the dissonance between current knowledge and necessary action to address climate change and bridging the existing gap between generations. She also highlighted natural and cultural heritage, including intangible heritage and traditional knowledge, as a source of lessons for a more harmonious relationship with nature, and called for enhancing knowledge dissemination, increasing protection of natural areas, and scientific cooperation.

UNEP Executive Director Inger Andersen promised UNEP's strongest support to the IPCC. Noting the need for UNFCCC COP 26 to deliver where COP 25 had failed, she called for the IPCC to inject further impetus on climate action through AR6. She highlighted collaboration between the IPCC and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), particularly IPCC contributions to a synthesis of the best science for Convention on Biological Diversity (CBD) COP 15 and to consolidation of the dialogue on global assessment at the fourth session of the UN Environment Assembly (UNEA-4). She said UNEP would be increasing its contribution to the IPCC Trust Fund.

WMO Secretary-General Petteri Taalas reported on WMO support to the IPCC, including office space, administrative services, human resources, procurement and conference services. He highlighted that exposure of the IPCC Secretariat to WMO's internal and external auditing processes ensures the IPCC's transparency and integrity.

Élisabeth Borne, Minister for the Ecological and Inclusive Transition, France, pointed to the IPCC's irrefutable findings and said that, in a world where scientific facts can be challenged, including by major powers, change requires a "cultural struggle" and a "systemic revolution." She stressed the urgency of the task and the need for a carbon-neutral environment. She added that France is the leading contributor to the IPCC and assured the IPCC of its continued support.

Florin Vladu, UNFCCC, highlighted the role of the IPCC to inform options to accelerate climate action with AR6 as a key input to the first GST under the Paris Agreement, the second periodic review of the long-term global goal under the Convention, and of overall progress towards achieving it.

At the initiation of IPCC Chair Hoesung Lee, delegates observed a moment of silence in memory of former IPCC Chair Rajendra K. Pachauri, who passed away on 13 February 2020.

In his opening statement, Chair Lee noted recent progress in the productivity and financial security of the IPCC, while also drawing attention to the need to update its institutional arrangements. He opined that past complaints on, for example, delays in the translation of reports, could be avoided if the IPCC Secretariat had final decision-making power on such administrative matters instead of the WMO. He also called on delegates to revisit the size, structure, and composition of the IPCC Bureau.

José Cassandra, President of the Regional Government of Príncipe Autonomous Region, São Tomé e Príncipe, delivered a keynote speech highlighting his island's challenges due to climate change and its work on conservation, responsible tourism, and reducing and replacing plastic bottles. He thanked UNESCO for its partnership, which led to the declaration in 2012 of the

Príncipe UNESCO Biosphere Reserve and invited everyone to a meeting on biosphere reserves in small island developing states to be held on 13 March 2021 in Príncipe.

An artistic performance, titled "Steps for a Change," then took place, with a troupe of dancers from the Les Arts en Scène dance academy. Two parallel events then followed: a UNESCO-hosted panel discussion titled "Planet in Peril: transforming the course of climate action"; and a pre-plenary briefing.

Adoption of the Agenda and Organization of Work: On Monday afternoon, IPCC Chair Lee invited delegates to adopt the provisional agenda (IPCC-LII/Doc.1, Rev.1) and the proposed organization of work (IPCC-LII/INF.15).

Saudi Arabia opposed consideration of a proposed agenda item on "Enhancing support to the IPCC Secretariat," given that the related document (IPCC-LII/Doc.11) was not available. Many others, including Germany, the Republic of Korea, Egypt, Maldives, Ecuador, Sudan, and Pakistan, also favored deleting the item from the IPCC-52 agenda.

Spain, Belgium, France, the UK, the US, and Norway requested more information on the status of this issue before considering when to address it. Norway proposed that relevant information from the Secretariat could be shared during this session.

France, with Belgium, Luxembourg, Spain, and Colombia, underscored the need for faster translation of IPCC SPMs to prepare—and create dynamism for—UNFCCC COP 26.

IPCC Chair Lee suggested that delegates could address the issue of Secretariat support when the relevant document becomes available and in the Financial Task Team (FiTT), but said this proposed agenda item would be dropped from the IPCC-52 agenda. Delegates adopted the agenda as amended.

The organization of work and the draft report of IPCC-51 (IPCC-LII/Doc.3) were also adopted without comment.

Final Decisions: The final decision on the adoption of the provisional agenda (IPCC-LII-1) notes that the IPCC adopts the provisional agenda with the deletion of Agenda Item 15, after agreeing that clarifications on this agenda item should be provided at and discussed by the FiTT. Another decision (IPCC-LII-2) notes approval of the IPCC-51 report.

IPCC Trust Fund Programme and Budget

The Secretariat presented this agenda item on Monday afternoon.

Budget for the Years 2020, 2021, 2022 and 2023: The Secretariat reported on the status of income and expenditure for the Trust Fund, a revised 2020 budget, a proposed 2021 budget, a forecast 2022 budget, and an indicative 2023 budget (IPCC-LII/Doc.2, Rev.1). She highlighted: savings in the organization of plenary sessions, Executive Committee (ExCom) meetings, and WG/TFI meetings; generous support from countries hosting meetings; and procedures to enable more cost-effective travel.

In response to a query from Switzerland, she responded that 2020 budget had been revised to meet requests for more meetings in 2020.

The Secretariat announced that an overview of IPCC finances would be provided by the WMO during the FiTT meeting at this session. Chair Lee announced the FiTT would meet during this session and draft decisions would be presented for approval by plenary on Friday.

On Friday, reporting back to plenary, FiTT Co-Chair Kate Vogt noted that the FiTT: reviewed the budgets and budgetary implications of IPCC-52 decisions, including for the Gender

Policy and Implementation Plan; initiated preliminary conversations around enhancing efficiency of support to the IPCC Secretariat, including for travel and procurement, and the need for technical staff; and identified recommendations for the Panel.

IPCC Secretary Abdalah Mokssit introduced, and the Panel adopted, the decision on the IPCC Trust Fund Programme and Budget for the years 2020, 2021, 2022 and 2023.

Final Decision: This decision (IPCC-LII-9) notes that, based on recommendations of the FiTT, the Panel, *inter alia*:

- approves the proposed budgets for 2020 and 2021, and notes the forecast budget for 2022 and the indicative budget for 2023;
- welcomes all contributions and pledges, especially from developing countries, UN bodies, and intergovernmental organizations, and encourages all members of the IPCC to maintain or increase their financial support, also through multi-year pledges, to ensure the IPCC's financial stability;
- encourages members to make first-time contributions to the IPCC Trust Fund;
- expresses gratitude to: members that support the TSUs and IPCC activities; the WMO and UNEP for financing one Secretariat position each, and the WMO for hosting the Secretariat and for its continuing support for the IPCC; and the UNFCCC for its contribution to the Trust Fund;
- decides to continue preparing the Trust Fund budget using the standard costs, bearing in mind that expenditures may be lower than the budget;
- requests that the Secretariat present the statement of financial position and performance on a modified cash basis that categorizes expenditures per activity as well as by natural account;
- requests the TG-DATA Co-Chairs to seek guidance from the Secretariat in mobilizing resources for their activities and for the Data Distribution Center (DDC), and to provide the Secretariat with cost estimates for the activities outlined in the Task Group's workplan;
- invites member countries and observer organizations to consider supporting the DDC;
- requests the Secretariat to prepare a report to the next Bureau meeting on staffing, roles, and requirements, as well as options to enhance the efficiency of support for travel, procurement, and continuity within and between cycles; and
- invites the Gender Action Team to assess funding needs for the work foreseen in the Gender Policy and Implementation Plan and to work with the Secretariat to include an appropriate budget line for consideration in forthcoming budget deliberations.

Resource Mobilization: Discussing resource mobilization (IPCC-LII/INF.13) on Monday afternoon, the IPCC Secretariat urged members to make their 2020 contributions, and multi-year pledges for countries in a position to make them.

On Friday afternoon, Secretary Mokssit reported further on this issue, noting that since a dip in contributions in 2016, the IPCC's financial position has gotten stronger and the organization received CHF 7.7 million in 2019. He noted, however, that 2019's income was a little lower than the CHF 8,123,056 received in 2018, adding that three plenary meetings in 2019 and an ongoing increase in IPCC activities and participation from countries needing financial assistance require an increase in contributions. He reported some cost savings, such as less expenditure for a Task Group on Data Support for Climate Change Assessments

(TG-DATA) meeting than expected. He also noted that the number of contributor countries has risen from 24 in 2014 to almost 40 plus the European Union (EU) in 2019.

The UK announced a contribution of GBP 150,000, in addition to hosting the TSU for WG III. The Republic of Korea announced a new commitment to contribute CHF 430,000 as well as the TSU for the AR6 SYR. Japan expressed the hope to continue in-kind contributions including hosting the TFI TSU, subject to government approval. Trinidad and Tobago expressed the hope to contribute in 2020 an amount equal to its contribution in 2019. The EU confirmed its support for translation into several languages. Morocco announced an increase in its contribution for 2020, saying this marks its third year contributing to the IPCC.

Chair Lee thanked them and expressed hope that all countries will someday participate in the IPCC Trust Fund to ensure its true financial stability.

The Panel took note of the document.

Audit of the 2018 Financial Statement: The WMO reported on its preparation of the IPCC's 2018 financial statement, which covers funds received, expenditures, and financial status as of 31 December 2018 (IPCC-LII/INF.1). He stated that the WMO's external auditor found the statement in conformity with International Public Sector Accounting Standards and WMO financial regulations and explained that the 2019 financial statement will be audited in March-April 2020. The WMO reported on its preparation of the IPCC's 2018 financial statement, which covers funds received, expenditures, and financial status as of 31 December 2018.

The Panel took note of the report.

Task Group on Data Support for Climate Change Assessments (TG-Data)

On Tuesday, Task Group Co-Chair Sebastian Vicuna presented the TG-Data report (IPCC-LII/Doc. 8, Rev.1), which addresses: the work of the Task Group since its establishment in April 2019; ToR for the Task Group and the DDC; and the Task Group's work plan and recommendations.

Vicuna reported on several TG-Data meetings that addressed, among others, the FAIR (findable, accessible, interoperable and reusable) data strategy. He also informed the Panel of the Spanish government's offer of an in-kind contribution for the development, maintenance, and hosting of the AR6 Atlas of Global and Regional Climate Projections for the duration of the assessment cycle.

Tanzania, with the UK and others, welcomed the report, emphasizing the value of implementing the FAIR data strategy and making it available to the public. The Republic of Congo underscored the importance of data availability, noting that developing countries often lack sufficient data in their requests for funding from the Green Climate Fund. Japan offered to share its experiences with sharing data. The US and the UK welcomed a focus on making data publicly available as a priority.

IPCC WG II Vice-Chair Andreas Fischlin noted that the report had changed substantially since its presentation to the IPCC Bureau to which the TG-Data is accountable. The US proposed, and delegates agreed, to address improving the timing of Bureau and plenary meetings in the future to avoid similar situations and to ensure that the same version of the report is presented to the Bureau and plenary.

On Friday, the Panel adopted a decision on TG-Data, which includes the TG-Data workplan and recommendations in attached

annexes. Regarding the draft decision text, Germany preferred to “take note of” rather than approve the recommendations.

Final Decision: In decision IPCC-LII-5, the Panel: approves the annexed TG-Data workplan for the period 2019-2023; and notes the annexed recommendations presented by TG-Data, including those related to curation of datasets, public code access, DDC resourcing, and outreach.

Sixth Assessment Report Synthesis Report Outline

The draft AR6 SYR outline was first taken up on Monday morning and discussed throughout the week. The Panel went through a number of iterations of the outline, which was approved Friday evening. The Panel also discussed the proposed timetable and schedule for the SYR. Additional notes for authors accompany the outline, and include issues for consideration by the authors, as supported by information in all AR6 products.

Following the introduction of the scoping process for the SYR and the proposed outline, delegates provided general comments, followed by discussions on each section and respective bullet points, which are indicative and intended to help authors in SYR development.

After lengthy discussions on the outline in plenary, a contact group, co-facilitated by Canada and Tanzania, convened on Thursday evening and throughout the day on Friday to further discuss outstanding issues. The SYR outline was approved and a decision on the SYR outline was adopted on Friday evening.

The SYR outline contains a scene-setting introduction and three sections with indicative bullet points and page limits: Current Status and Trends (10 pages); Long-Term Climate and Development Futures (10 pages); and Near-Term Responses in a Changing Climate (10 pages).

Presentation of the SYR Outline and the Scoping Process:

On Monday, introducing this agenda item (IPCC-LII/Doc.10 and IPCC-LII/INF.12), IPCC Chair Lee highlighted the SYR scoping meeting that took place in October 2019 in Singapore, and elaborated on the scoping process and proposed outline. He lamented that, while governments had been invited to provide their comments on the AR6 SYR structure and proposed elements developed at the scoping meeting, only 14 responses had been received. Lee suggested that the Panel come up with key questions for each section and proposed forming a contact group to do so, but Panel members did not agree. The Panel agreed to comment on the proposed outline as presented in plenary.

On the SYR process, Zimbabwe expressed concern regarding lack of regional representation in the SYR scoping meeting. Chair Lee expressed hope that the nomination procedures would be revised for SYR scoping for the next assessment cycle.

In response to a question by Norway on establishing the SYR TSU, Chair Lee replied that the vacancy for the Head of the TSU was posted on the IPCC website, and that recommendations for the post would be welcome.

On Tuesday morning, the outline and its sections were introduced in more detail. IPCC Vice-Chair Ko Barrett highlighted the deep integration of all sections, explaining that the outline’s introduction: provides the report’s context; groups topics into themes; identifies linkages; and explains the report’s structuring based on current, long term, and near-term timescales. She introduced additional notes for authors, which lay out points that authors are invited to consider as they assess information from all AR6 products for incorporation into the SYR. She said that issues raised in plenary discussions, if agreed, would be added to these notes.

Introducing the proposed section outlines, IPCC Vice-Chairs Barrett, Youba Sokona, and Thelma Krug emphasized:

- people as a “key lens,” including with respect to the interplay of risk and equity;
- interactions between adaptation, mitigation, and development, including economic, equity, and governance dimensions; and
- integration of all considerations specified in the various bullet points into sections based on different timescales, in order to address similar themes and provide a context for consideration of near-term action.

General Comments: In their general comments on the outline and SYR, France, the US, the EU, Indonesia, Canada, Germany, Brazil, Chile, the UK, Belgium, Norway, and Mexico welcomed the proposed outline as a basis for discussions. Norway and Estonia welcomed the suggested “timeframe” approach, with Ireland requesting clarity on ways to link climate’s long timescale to the short timelines of normal policy cycles without being policy prescriptive. Luxembourg emphasized the importance of including phenomena beyond 2100, where relevant.

France stressed coherence in the use of terms and reference to the Sustainable Development Goals (SDGs), negative impacts on ecosystems, protection of biodiversity, and oceans. India stressed equity in the context of sustainable development. Belgium, supported by Norway, lamented the lack of reference to SR15, the SDGs, the Paris Agreement, or the Sendai Framework for Disaster Risk Reduction.

Japan requested language on: the wider context of the SYR and emphasis on earth observation to enable weather and regional impact studies; information on tipping points and irreversibility, especially in a geological timeframe; data on uncertainty in climate sensitivity; and future climate projections, including regional and national scales.

Saudi Arabia stressed the need for balance on adaptation and mitigation. Brazil emphasized the need for a balanced approach regarding sectors, addressing, for example, solutions for transport and energy besides land use, as well as to regions, noting the absence of science from the South, particularly South America, in previous assessments.

Saudi Arabia lamented the lack of reference to means of implementation, with Brazil and India requesting consideration on the current state of means of implementation, particularly climate finance. The US recalled that all sources of finance will need to be considered, cautioned against trying to “over-engineer” this SYR away from what scientists have proposed, and advised against using the report for “pre-negotiations” of certain issues. Referencing the scoping meeting report, WG III Co-Chair Jim Skea noted various references to finance and said this would also be covered under enabling conditions.

The EU called for including wording on economic benefits related to adaptation and mitigation efforts, drivers of emission reductions and avoided emissions, and links to biodiversity, in either bullets or cross-cutting boxes. Mexico added that both biodiversity and cultural diversity are important resources for adaptation.

Norway, Luxembourg, Canada and others proposed the use of cross-sector boxes for bridging sections and addressing overlaps in the SYR itself. As possible topics for these boxes, Luxembourg suggested biodiversity, gender and, with Canada, indigenous knowledge. Saudi Arabia and Canada also called for a cross-sector box on nature-based solutions. WG I Vice-Chair Jan Fuglestad reported on ongoing work on carbon budget and

biodiversity, highlighting this as an example of integration in the report and, therefore, a good topic for a box.

Mexico also requested consideration of: the implications, particularly economic, of inaction and delayed action and irreversibility; short-term impacts, losses, and damage; mitigation and adaptation efforts of large companies, and their effects; and more emphasis on climate uncertainty and sensitivity.

Trinidad and Tobago called for reference to loss and damage and the loss of intangible resources, as already included in the special reports.

In response to a suggestion from Belgium, IPCC Secretary Mokssit read written comments submitted by China, who was unable to attend due to the coronavirus (COVID-19) outbreak. China, supported by Saudi Arabia, called for, *inter alia*: emphasizing risk; striking a balance between adaptation and mitigation; and referring to both near- and mid-term action.

Poland, with the US, the UK, Ireland, and Estonia, suggested the use of easy-to-understand graphics to enhance clarity and readability of the report. Canada and Luxembourg suggested working with experts to convey messages clearly to policymakers.

India preferred arranging the outline by topic rather than by timeframe, and proposed new section headings: climate science – current status and future trends (Section 1); adaptation and mitigation (Section 2); extreme events and related loss and damage (Section 3); and climate action and global cooperation (Section 4).

Section 1: Introduction: This section was introduced by WG I Vice-Chair Jan Fuglestad on Wednesday. He highlighted that this section provides context and sets the stage for the SYR, as well as the thinking behind the structure of the SYR and its various sections.

Commenting on the introduction, Switzerland, with Japan, suggested including the concept of climate sensitivity to frame the SYR in the context of motivating action and increasing the urgency of transformative change. Japan suggested this could be treated in a cross-thematic box. India and Saudi Arabia opposed singling out concepts.

On Friday, following contact group discussions where the issue of the timeframes proposed in the outline was discussed at length, WG III Co-Chair Skea said that timelines used in the three WGs depend on the context and said additional notes for authors would provide a common definition. However, upon request from Ecuador and India, it was agreed that a definition of timeframes would be mentioned in an introductory bullet. The introduction was then approved.

Introduction: The outline's introduction includes bullets that refer to context, setting the stage for the report, and a definition of timeframes.

Section 2: Current Status and Trends: This section addresses historical and emerging trends, and social and economic development in relation to the changing climate. Most of the discussion centered on inclusion of reference to the carbon budget and links of historical and cumulative emissions to long-term and development futures, as well as the meaning and scope of "committed climate change."

Commenting on the section overall, the US expressed strong support for considering socio-economic issues and their relation to risks. On finance, he called for a broad view of finance flows and relevant investments.

India questioned the placement of some of the bullets and urged tying the carbon budget to temperature targets.

Trinidad and Tobago, with Saint Kitts and Nevis, cautioned against use of the term "differentiated risk," as it might not capture current impacts. WG II Co-Chair Debra Roberts noted that "differentiated" was intended to capture differences in socio-economic development.

Responding to Saint Kitts and Nevis' request to differentiate between impacts and risks, WG II Co-Chair Hans-Otto Pörtner explained that authors are analyzing climate futures and development over time and identifying risk levels from present climate trends. He said a "black and white differentiation" would not be justified in this case.

Friends World Committee for Consultation emphasized the role of civil society and encouraged integrating a definition of the costs of inaction that also reflects non-economic losses; and the benefits of urgent climate action, rights-based approaches, and sustainable consumption.

The Panel then discussed the section's proposed bullet points in more detail.

Regarding a proposed bullet on **socio-economic development, changing climate, differentiated risks, and climate policy**, India viewed the reference to socio-economic development as too general and recommended clarifying the climate science-specific context in this bullet. Saudi Arabia requested deleting reference to "climate policy," noting it was too policy prescriptive. Preferring not to limit the focus to climate policy, Norway suggested also including consideration of, for example, transport, energy, and agricultural policies. Indonesia asked for reference to poverty eradication and financial support, and Ecuador suggested including residual risks and limits to adaptation as related to risk management.

On a proposed bullet on **CO2 emissions by sources and removals by sinks, non-CO2 forcers, including SLCFs**, India stressed cumulative emissions and proposed an additional bullet on the total carbon budget for precise temperature targets and the remaining carbon budget. Ecuador supported focusing on historical emissions and the remaining carbon budget. Japan asked for attribution. Mexico, Norway, Turkey, and others, opposed by Saudi Arabia, underscored the importance of including climate forcers.

On a proposed bullet on **socio-economic and technological drivers of emissions**, Mexico, Saudi Arabia, and others preferred referring to drivers for both increases and decreases in emissions. Norway suggested coverage of different levels and ranges of actors and behavioral changes. Indonesia emphasized capacity-building gaps.

Regarding a bullet on **regional/global changes in the climate system, their causes and committed changes**, Canada, Ghana, Tanzania and others sought clarity on the reference to committed changes. Ghana and others, opposed by Saudi Arabia, also asked for a focus on sub-regional changes. The UK, with Estonia and others, called for reflecting the benefits of mitigation in terms of avoided impacts.

On a bullet on **impacts on human, natural, and managed systems and sectoral and regional risks and vulnerability**, Trinidad and Tobago, the Maldives, Saint Lucia, Saint Kitts and Nevis, Mexico, El Salvador, and India requested explicit reference to residual risks and to economic and non-economic loss and damage, from both extreme and slow onset events, to ensure that the latest information, as well as that provided in the IPCC special reports, is included in the AR6 SYR. Estonia called for consideration of gender issues and indigenous communities.

On a bullet on **status of adaptation and mitigation efforts and implications for sustainable development**, Spain suggested including the concept of maladaptation and, with South Africa, the interactions between adaptation, mitigation, and co-benefits. With Norway, South Africa also called for win-win solutions, including nature-based solutions. Brazil, with Saudi Arabia and Ecuador, stressed the need to include reference to the current status of means of implementation. Trinidad and Tobago and Antigua and Barbuda noted the need to capture implications from warming levels. Saint Lucia called for language to reflect the dependence of socio-economic development on future warming trajectories.

A **revised section** of the outline was presented on Thursday. IPCC Vice-Chair Krug explained that the revised section:

- makes reference to climate action across regions and deletes mention of differentiated risk and of climate policy;
- mentions annual and cumulative CO₂ emissions by sources, as well as avoided emissions;
- refers to impacts and risks, including residual risks; and
- references the status of finance and interdependencies with sustainable development.

Krug explained that the revised outline also included a new bullet on “committed climate change due to past emissions and emissions associated with existing and planned infrastructure.”

Many delegates welcomed the changes, while others expressed pending and new concerns. India said his proposals to revise section headings, among others, had not been addressed, and observed a lack of balance in the revised outline.

India, Ecuador, Brazil, and Saudi Arabia reiterated their request to include the carbon budget explicitly since 1990. With the US, Brazil, and others, they also questioned the meaning of “committed change” and the new reference to existing and planned infrastructure, with the US noting that committed change goes well beyond infrastructure. India, the US, Saudi Arabia, the EU, and others also questioned inclusion of the term “avoided emissions,” noting its ambiguity. Saudi Arabia noted that “drivers of emissions” carries a negative connotation and preferred to clarify that these refer to both increases and decreases of emissions.

Saint Kitts and Nevis called for clearer reference to economic and non-economic losses, and Norway suggested adding reference to action across sectors as well as across regions and to the combined effects of climate change and pollution. With the UK, France, Estonia, and others, Norway also called for adding links to biodiversity. Argentina and Brazil proposed including food security, and Ecuador recalled his proposal for explicit mention of adaptation limits and capacity building. Japan suggested furthering clarity by referring to “geological and historical timeframe.” The UK suggested reference to leap-frogging and stranded assets and, with Estonia and France, to the benefits of early action.

Various attempts were made to address these points in plenary and later in the contact group, where discussions centered on reference to committed or unavoidable climate change and to the carbon budget. India’s suggestion to move the status of mitigation efforts to Section 3 and also to link annual and cumulative present and past emissions to the carbon budget were opposed by the US and others.

These issues were eventually resolved on Friday in plenary. India’s suggestions were incorporated into the additional notes to authors, and committed change was expanded in accordance with the IPCC glossary to refer to “unavoidable climate change due to

past emissions and from inertia in the geophysical and socio-economic systems.” The section and its heading were then agreed.

Section 2 Final Bullets: The final bullets for this section address:

- socio-economic development, climate change, and climate action across regions;
- current and historic CO₂ emissions by sources, removals and sinks, from both an annual and cumulative perspective, and non-CO₂ forcers, including SLCFs;
- socio-economic and technological drivers that increase or decrease emissions;
- regional/global changes in the climate system and their causes;
- unavoidable climate change due to past emissions and from inertia in geophysical and socio-economic systems;
- current impacts on human and natural systems, vulnerability, and sectoral and regional impacts and risks, including residual risk; and
- current status of adaptation and mitigation efforts, finance, capacity building and technology, and implications for sustainable development.

Section 3: Long-term Climate and Development

Futures: This section addresses the longer-term potential risks and impacts of climate change at different levels of global warming, adaptation, and mitigation, and their interaction with development. Much of the discussion centered around concepts such as net-zero emissions, slow-onset events, carbon budgets, residual risks, carbon dioxide removal (CDR), and solar radiation management (SRM).

During initial general comments on this section, Germany asked for reference to the benefits of avoided impacts. Venezuela called for the report to address response measures and the negative effects of unilateral measures, including on human rights.

Zimbabwe cautioned against overemphasizing economics and, with others, suggested a clearer focus on sustainable development throughout. Norway and Germany proposed addressing timescales beyond 2100 as relevant, particularly in relation to sea-level rise and irreversibility.

Colombia highlighted several interlinkages between this and other sections, including between sustainable development, food security, land use, drought, and desertification, and called for addressing cities, pollution, and water-related issues. Brazil also emphasized food security.

On the section heading, Germany asked for explicit reference to “response strategies.” Switzerland suggested reference to “transformative change” to enabling conditions that are relevant for transformative change, while the Republic of Korea suggested addressing system transitions.

Spain, Mexico, South Africa, and others called for language reflecting interdependence on socio-economic development throughout the section. Norway called for considering path dependency and lock-in, as well as synergies and tradeoffs for nature and ecosystems.

India suggested moving a proposed bullet on **climate change at different global warming levels, rate of change, and dependency on forcing characteristics** to Section 2. Spain suggested including scope, as well as rate, of change. Ghana, supported by Nigeria, requested a focus on climate impacts at different warming levels.

Regarding a bullet on **global and regional risks for natural, managed and human systems, and dependence on socio-economic development**, France and Estonia supported keeping

the reference to managed systems, while Saudi Arabia preferred referring to only human and natural systems. Trinidad and Tobago called for references to slow onset and extreme events. Spain proposed mentioning impacts as well as risks. South Africa, supported by Zimbabwe, suggested adding sub-regional risks. Estonia suggested including impacts on indigenous communities and women.

Regarding a bullet on **adaptation: options and limits, dependence on socio-economic development**, Trinidad and Tobago, supported by Jamaica, Belgium, the US, and others, proposed addressing warming levels to help identify which risks can be avoided, while Spain and Chile called for reference to maladaptation. South Africa, Lesotho, and Eswatini proposed reference to adaptation co-benefits for consistency with the concept of mitigation co-benefits. Saudi Arabia suggested referring to adaptation opportunities, options, and limits.

On a bullet on **mitigation pathways, carbon budgets, net-zero emissions, dependence on socio-economic development, and risks and co-benefits from mitigation**, India, supported by Brazil, Saudi Arabia, Ecuador, and others, emphasized coverage of mitigation pathways and historical carbon budgets since 1990. India also stressed that net-zero emissions should be assessed in-country and not globally.

India and Saudi Arabia further called for factoring in mitigation costs, while the UK and others emphasized opportunities and co-benefits from mitigation.

Regarding a bullet on **interactions between adaptation, mitigation, and development, including economics, equity, ethical, and governance dimensions**, Spain proposed adding reference to vulnerability. India and Zimbabwe called for more focus on equity. Germany, the UK, Estonia, Ukraine, and others requested inclusion of benefits of avoided impacts. Saudi Arabia cautioned against being policy prescriptive in addressing ethical dimensions, while the Friends World Committee for Consultation suggested that ethics is a moral call to conscience for urgent climate action.

Regarding a bullet on **deep uncertainty, tipping points, irreversibility, compound events, high-impact events, and societal and technological disruptions**, Lesotho requested inclusion of regional assessment to improve policy guidance. Mexico noted the value to policymakers using strategies informed by long-term models based on probabilities.

Regarding a bullet on **near- and long-term interactions, overshoot, CDR, SRM, and adaptation**, the Republic of Korea, the US, Norway, and others questioned the grouping of CDR, SRM, and adaptation. Ecuador suggested moving geo-engineering options to the bullet on mitigation. Belgium proposed reference to risks and benefits. Norway and Germany highlighted ethical issues, while Japan requested reference to costs, barriers, and timeframes of these technologies.

On Thursday afternoon, IPCC Vice-Chair Sokona highlighted changes in the **revised section** of the outline, noting the inclusion of reference to: scenarios and projections; impacts; residual risks; “remaining” carbon budgets; and equity. He said more comments were included in additional notes to authors.

Referring to the revised outline in general, India reiterated his concern with organizing the outline by timeframe and not by topic. Several countries, including the US, the UK, Estonia, Luxembourg, France, and Trinidad and Tobago, favored keeping structure of the draft outline as presented.

Saint Lucia, supported by Saint Kitts and Nevis, the US, and Trinidad and Tobago, said residual risks depend on warming levels, because available adaptation options will change with hotter temperatures.

Ghana, India, Saudi Arabia, Brazil, and Zimbabwe called for reference to the “total,” rather than the “remaining,” carbon budget, to capture historic emissions. India, Tanzania, and Ecuador then suggested, as a compromise, “total consumed and remaining” carbon budget. Saudi Arabia, supported by Ecuador, objected to reference to net-zero emissions because not all countries have committed to this goal. France asked how emissions could be stabilized otherwise. India and Ecuador requested reference to co-costs, not just co-benefits.

Saudi Arabia also said that mentioning ethical and governance dimensions is policy prescriptive, but requested reference to co-benefits and, with Zimbabwe, added sustainable development. Mexico cautioned that long-term risks depend on what is done in the short term. Saudi Arabia asked how to assess whether an event is high impact.

Germany, Ecuador, and Norway reiterated concerns about inclusion of CDR and SRM. Mexico requested inclusion of reference to natural options for negative emissions. Germany highlighted capturing the benefits of avoided emissions and said slow onset events are just as relevant beyond 2020 as abrupt changes.

On Friday, the contact group reported on agreement to, *inter alia*, remove reference to managed systems, net-zero emissions, and ethical and governance dimensions. They also agreed to add wording, including on: residual risks and their implications for socio-economic development; dependence of adaptation on warming levels; global balance between anthropogenic GHG emissions, removals and sinks; and total and remaining carbon budgets and the link to past cumulative emissions.

During further plenary discussions on this section, Japan asked to include technological disruption in a list of climate risks. Other delegates objected to reopening what was already agreed in the contact group that Japan had participated in. After IPCC Vice Chair Sokona and Chair Lee assured him that his suggestion would appear in the additional notes to authors, Japan withdrew his request and the Panel approved Section 3 as agreed in the contact group.

Section 3 Final Bullets: The final agreed bullet points in this section address:

- scenarios and projections, regional and global climate change, rate of change, and dependency on forcing characteristics;
- global and regional impacts, costs and benefits, and risks for natural and human systems, dependence on warming levels, and implications for socio-economic development;
- adaptation: options, opportunities, limits and residual risks, implications for socio-economic development and dependence on warming levels;
- mitigation pathways, global balance between anthropogenic GHG emissions, removals and sinks, total and remaining carbon budgets and the link to past cumulative emissions, equity and implications for socio-economic development;
- adaptation, mitigation, and sustainable development, and interactions, including direct and indirect costs, benefits, co-benefits, risks, economics, and equity;
- deep uncertainty, tipping points, irreversibility, compound events, high-impact events, and implications for society;
- overshoot pathways, CDR, SRM, and their implications; and
- near-term and long-term interactions.

Section 4: Near Term Responses in a Changing Climate:

This section, which was originally titled “Near Term Action in a Changing Climate,” was first addressed on Tuesday and agreed on Friday evening. The section addresses climate change and response options over the 2030 and 2050 timeframes in the context of climate change and variability, environmental and socio-economic aspects, linking both current options to address climate change and long-term implications. Following discussions on a revised outline presented on Thursday, discussions continued in the contact group on Thursday and Friday.

Topics/bullets that engendered significant debate during the discussions related to, *inter alia*: enabling conditions or means of implementation; strengthening and initiating system transitions; and whether to refer to the concepts of just transition and path dependence.

The US called for addressing the wide range of actions that are relevant for sustainable development.

Saint Kitts and Nevis highlighted the need for clear and timely information on what urgent action is needed in the near term to limit warming to 1.5°C, and on the consequences of not ramping up action. The UK reiterated its call to address leap-frogging, capacity for change and, opposed by Saudi Arabia, stranded assets.

Regarding the section heading, India favored referring to global cooperation more generally, linking both near- and long-term actions to the global carbon budget. Via written submission, China proposed referring to both near- and mid-term action in the section title.

On a bullet on **near-term climate change and variability, vulnerability, exposure and risks for natural, managed and human systems, across scales**, Malawi suggested reference to sectors as well as scales, while Saudi Arabia questioned reference to scales and to managed systems. Zambia proposed adding the focus on implications of these phenomena on sustainable development. Estonia requested mentioning indigenous and gender-related impacts, and, with Norway, called for a focus on the benefits of immediate action.

On a bullet on **near-term development pathways consistent with limiting warming to different levels and enhancing adaptation**, Norway asked how to link near-term actions to long-term goals, given, for example, that increasing forest area takes time but is needed for negative emissions in the long term. South Africa emphasized different development pathways at different warming levels. Chile proposed adding economic benefits of early action and behavioral change. Switzerland called for adding a bullet on risks in this section.

Regarding a bullet on **path dependency, lock-in, and implications of delayed action in a changing climate, including irreversibility**, Tanzania, India, Malawi, and Saudi Arabia requested clarification of path dependency, lock-in, and implications of delayed action, with Saudi Arabia suggesting these terms might be policy prescriptive and asking how to assess irreversibility. Saint Lucia, with Trinidad and Tobago, noted that delayed action increases residual risk and requested reference to the viability of adaptation and mitigation options. Saint Kitts and Nevis, supported by Canada, requested reference to the consequences of different adaptation pathways. India called for including implications of delayed action in relation to the carbon budget.

Estonia, Canada, Saint Kitts and Nevis, the UK, Australia, and others underscored the importance of including the benefits of early action.

India proposed two new bullets: on the balance sheet of mitigation post-1990, with reference to equity and differentiation; and on opportunities for rapid emission reductions, sustainable consumption, and behavioral change in developed countries.

Regarding a bullet on **diverse response options across and within sectors and scales, including policies, co-benefits/synergies and trade-offs** (adaptation, risk management, mitigation), Norway emphasized knowledge sharing on policy instruments.

Regarding a bullet on **strengthening and initiating system transitions, including for adaptation and mitigation, in the context of sustainable development, poverty eradication and equity, and just transitions**, Zimbabwe and Zambia expressed concern that reference to a just transition was policy prescriptive. Colombia requested reference to health and Tanzania, Brazil, India, and Argentina to food security.

Regarding a bullet on **enabling conditions including finance, institutions, capacity, governance, international cooperation, technological innovation and technology transfer, and behavior change**, France called for including energy transition in this list. Saudi Arabia, with Brazil, called for balance, objecting to singling out a specific sector. Switzerland preferred retaining reference to individual sectors because of their roles in transformative change.

Cuba emphasized also focusing on the removal of barriers to transformative change, including financial, institutional, and commercial barriers.

Saudi Arabia cautioned that referring to governance as an enabling condition is policy prescriptive. Ecuador favored referring to means of implementation rather than enabling conditions, explaining that governments are interested in means for action. India requested a critical global review of the status of enabling conditions. Trinidad and Tobago, with Saint Kitts and Nevis, stressed the gaps in enabling conditions, especially related to loss and damage, adaptation, and residual risks. South Africa queried the scale of financial support required for development that is consistent with low-emission pathways.

Some delegates expressed unease over notions of “behavioral change.” Spain called for reference to civil society and inclusive participatory governance. Venezuela emphasized international collective action as a human rights issue. Friends World Committee for Consultation, *inter alia*, stressed the role of behavioral change and sustainable economic systems, and called for the addition of reference to public participation.

Presenting the **revised section** of the outline on Thursday, IPCC Vice-Chair Barrett highlighted changes, including the addition of reference to: benefits of early action; implications of delayed action such as lock-in, residual risks, and irreversible changes; and investment and behavior aspects across a broad range of actors in the bullet on enabling conditions.

Commenting on the revised bullets, India stressed that “implications of delayed actions” must include both forward-looking and backward-looking aspects. He called for addressing the issue of “free riders,” referring to countries that failed to deliver on Kyoto Protocol targets.

Norway raised concerns over the deletion of a specific reference to climate change impacts and risks for systems “across scales” in the revised outline. He also reiterated the proposal to link near-term actions to long-term goals and reminded the Panel of the role of ecosystem solutions as a core element in sustainable land management and related recommendations from the SRCLL.

Angola, Ecuador, Ghana, Tanzania, and Zimbabwe reiterated concerns with the concept of “just transition” and preferred referring simply to “transition.” Zimbabwe said his country could not accept this as a near-term mitigation obligation. He explained his country’s reliance on energy from coal and hydropower sources, and its focus, instead, on adaptation.

Poland explained that the concept was widely understood to address social impacts of economic transitions. Given the unprecedented economic and social transition needed to address climate change in the near term, Estonia and the Netherlands underscored that policymakers are interested in options that are socially acceptable. The EU proposed a compromise by referring to “just system transitions,” suggesting this could provide more ease for countries without near-term transition plans in place. This was agreed.

On Friday in plenary, and following contact group discussions, delegates resolved the final outstanding issue, which related to the section title. India and Saudi Arabia preferred reference to near-term options, rather than action, with respect to the changing climate, suggesting this would be less policy prescriptive and more policy relevant. France, Switzerland, and Germany objected. The UK, in seeking a compromise, proposed that the heading refer to “near-term response in a changing climate.” With this change, the section was approved.

Section 4 Final Bullets:

The final bullets for this section address:

- near-term climate change and variability, vulnerability, exposure, impacts, costs, and risks for natural and human systems;
- near-term socio-economic trajectories consistent with limiting warming to different levels and development pathways consistent with sustainable development and enhancing adaptation;
- potential for benefits and costs of and barriers to early action, implications of delayed action, including lock-in, residual risks, spill over and irreversible changes in a changing climate;
- diverse response options across and within sectors and geographic scales, benefits, co-benefits/synergies and direct and indirect costs, and trade-offs (adaptation, risk management, mitigation);
- strengthening and initiating just system transitions, including for adaptation and mitigation, in the context of sustainable development, poverty eradication, food security, and equity; and
- supportive conditions and means, including finance and investment, capacity, institutional arrangements, international cooperation, technological innovation and technology transfer, and behavioral aspects across a range of actors.

Proposed SYR timeline and provisional schedule: This issue was introduced by IPCC Chair Lee on Tuesday evening.

Delegates briefly discussed the composition of the SYR writing team. Switzerland and Saudi Arabia suggested inviting new writers, but France, Germany, Norway, and others preferred that the team be mainly composed of existing WG report authors working in coordination to synthesize WG report findings. The US called for clarity on the procedure if authors were to come from beyond the WGs.

Luxembourg, the UK, and others proposed that experts on science communication and graphics be engaged early on and, with others, pressed for setting up the SYR TSU as soon as possible. Zimbabwe, Ecuador, Saudi Arabia, Brazil, Tanzania, and Morocco emphasized regional balance in writing teams,

with proper representation from developing countries. Brazil also called for balance in expertise, such as including experts on tropical as well as temperate areas.

Canada and Norway underscored the need to avoid conflict with the already-intensive WG schedules.

On Friday, IPCC Secretary Mokssit presented a revised timeline for the AR6 SYR, saying that it aims to ensure better coherence with other AR6 activities and the timeline for the WG contributions to AR6. Several members signaled difficulty in organizing experts according to the proposed timeline. France called for “spacing” the three reviews to a greater extent. Germany and Canada cautioned against scheduling during intergovernmental meetings, summer breaks or holidays, with Saudi Arabia and the Maldives drawing attention to Ramadan.

IPCC Chair Lee said the proposed timeline and SYR schedule would be attached to the decision on the SYR outline.

Decision on the SYR AR6: On Friday, delegates addressed the need to ensure that the order of the bullets in the outline does not carry any particular significance and proposed language to reflect this in the decision. Delegates also discussed language on the manner in which the additional notes would be transmitted to the authors, and the need to ensure that comments made in plenary on the final day of the meeting would be included and forwarded to authors. A number of delegates, including Belgium and Ecuador, expressed concern that they had not had the opportunity to look over a final version of the notes, but the US, supported by the UK and others, stressed the importance of placing trust in the Secretariat to get all the additional notes to the authors. IPCC Vice-Chair Barrett clarified that the document with the additional notes for authors does not have a formal status.

Responding to a proposal by India to delete language referring to the bullets as indicative, the US objected, noting his country’s engagement in the SYR outline process during IPCC-52 was based on the fact that the bullets are indicative. India suggested that language reflect that the entire outline, not just the bullets, are indicative with the purpose of guiding authors in their consideration of information. Highlighting the importance of clarifying that the bulleted text is indicative, WG I Co-Chair Valérie Masson-Delmotte and WG II Co-Chair Roberts suggested using text from previous outlines, which states that the bulleted text resulting from the scoping process was refined through comments in plenary, and should be considered by the authors as indicative. This was agreed.

Norway asked for a process on ensuring cross-WG coordination, suggesting establishment of a Scientific Steering Committee (SSC), consisting of the IPCC Vice-Chairs and WG Co-Chairs. While recognizing an SSC is one option, Chair Lee suggested that the SYR core writing team must first be established before a decision is taken on the best way to manage SYR production. He said would provide an update on the possibility of an SSC at IPCC-53. With this understanding, the Panel adopted decision with the annexed outline.

Final Decision: In its decision (IPCC-LII-10), the IPCC:

- agrees to the outline of the AR6 SYR as contained in Annex 1 to the decision;
- agrees that the annexed additional notes will be forwarded to the authors for their consideration;
- takes note of the SYR provisional timetable, including approval of the report in May 2022; and
- takes note of the budgetary implications for the production of the SYR.

Organization of the Future Work of the IPCC in Light of the GST

This item was introduced on Tuesday, with the Co-Chairs of the Task Group on the Organization of the Future Work of the IPCC in Light of the Global Stocktake (TG-FWLGST), María Amparo Martínez Arroyo (Mexico) and Éric Brun (France), and Rapporteur Ole-Kristian Kvissel (Norway), presenting the Task Group's final report (IPCC-LII/Doc.5). Discussions continued throughout the week in plenary and informal discussions.

TG-FWLGST Co-Chair Brun summarized the mandate and background of the Task Group, which was established by IPCC-46. Co-Chair Martínez Arroyo presented two alternatives identified by the Task Group for future work to address alignment of the five- to seven-year cycle of the IPCC with the five-year cycle of the GST under the Paris Agreement. The first GST is scheduled for 2023 and will be informed by AR6. The second GST is scheduled for 2028. The first alternative has seven options, based on different IPCC products and/or different cycle lengths, and assumes that a decision will be made early enough to enable full implementation of the chosen option. The second alternative suggests the Panel would decide between options for future work after reviewing relevant information from both the IPCC and UNFCCC, and after additional review and analysis of the first GST.

The Co-Chairs and Rapporteur then presented the various options under each alternative as well as the pros and cons of each option that the Task Group had identified. Brun highlighted completion of the Task Group's mandate and pointed to a diversity of views regarding the various options. He said a decision in the coming months would be required for the second GST to take advantage of information produced by the IPCC.

Many delegates welcomed the Group's efforts, highlighted the value of thinking about the future organization of work to inform the second GST with the latest available science, and expressed interest in "speeding-up" the transition to the seventh assessment cycle as long as this would not interfere with finalization of AR6. However, views diverged on, *inter alia*, whether to change the length of IPCC cycles, whether to determine the main products to be made available for the second GST, and when to take a decision.

India requested more time to reflect on "harmonizing scientific, technological, procedural, and normative aspects that currently differ between the UNFCCC and IPCC." He saw no reason for enthusiasm for aligning the IPCC cycles with the GST, stressing that the first GST will simply reveal failure by developed countries to meet their pre-2020 commitments, both to provide adequate climate finance and implement significant emission reductions.

Australia noted that alignment would ensure that the IPCC's work is as useful as possible. Canada emphasized three core principles to consider: scientific integrity as key in all of the IPCC's work; IPCC independence, given the diversity of its audience; and relevance of IPCC products. He reflected on challenges experienced during the sixth assessment cycle thus far, such as authors' workloads. Hence, he expressed preference for the option that enables currently available assessment and special reports to inform the second GST.

Saudi Arabia noted that the IPCC is not the only source of scientific input for the GST and proposed postponing discussions on this issue to provide more time to address the AR6 outline at this session. Poland suggested waiting after the first GST in 2023 before taking a decision on preparations for the second GST. The

Russian Federation stated its preference for a "simple" option, namely the production of a technical paper dedicated to the second GST upon request from the UNFCCC.

Belgium, with Luxembourg, Norway, and Estonia, expressed hope for a decision on an option by the end of IPCC-52 and finalization of any necessary procedural adjustments during IPCC-53. Germany called for flexibility on the timing of a decision. Belgium supported options with short production cycles, preferably aligned with the GST, emphasizing the value of this in terms of policy relevance and media attention. She noted her country's preference for options that provide for the preparation of either a full assessment report or a shorter, more focused assessment report in time for the second GST. She suggested that if an acceleration in the transition would necessitate earlier elections, a contact group should be established to consider implications of this with the IPCC Legal Officer.

Jamaica, with Ghana and Saint Lucia, also called for a decision in 2020 and for ensuring that the seventh assessment report (AR7) informs the second GST. Saint Kitts and Nevis saw no reason why AR7 could not be finalized in time, given that the IPCC has had shorter cycles in the past. The Netherlands and Germanwatch expressed preference for the option of a shorter, more focused assessment report prepared in time for the second GST, or a special report specifically dedicated to the second GST.

South Africa said taking a decision now would be premature and, with India, commented on the absence of a clear request or invitation from the UNFCCC. He said that even with a seven-year cycle, the IPCC, due to its workload, has not always been able to fulfill each task requested by the UNFCCC. In its written statement, China stated its preference to maintain the length of the current assessment cycle. The US opposed taking any decision at this session on specific products, whether technical papers or special reports, that would alter the length of the IPCC assessment cycle.

Saint Kitts and Nevis stressed the importance of science for implementation of the Paris Agreement and expressed concern that "some governments seem to want to block the provision of scientific information by the IPCC to the GST." With Ghana, she reminded delegates that the Panel already decided at IPCC-41 to continue to prepare comprehensive assessment reports every 5-7 years, supplemented by special reports, and to consider the UNFCCC's work in determining future reports and their timing. She called on the IPCC to be proactive, flexible, and ready when UNFCCC requests are forwarded. The Republic of Congo suggested assessing potential risks if the IPCC does not align its assessment cycle to the GST.

Most delegates agreed with the US and Spain to view the discussion as an opportunity to consider enhancing the effectiveness of the IPCC overall, with many, including Canada and Norway, supporting acceleration of the transition from one assessment cycle to the next.

In this regard, Canada, Australia, Germany, Sweden, Luxembourg, Eswatini, and others supported earlier elections. Switzerland underscored the implications of an acceleration in the transition, explaining that this would require that elected candidates are prepared to begin work immediately, including with resources to establish a TSU. Japan noted that amendments to the Rules of Procedure, including on elections, could be addressed under the agenda item on the Review of Principles Governing IPCC Work.

Pointing to a lack of consensus, the Republic of Korea, Denmark, and Ecuador opined that reaching a decision at IPCC-

52 was not feasible. This observation was echoed on Friday morning by TG-FWLGST Co-Chair Brun, who noted, however, that a large number of interventions expressed interest in enhancing the transition between assessment cycles.

The US proposed continuing informal consultations to explore whether the procedural aspects identified in the discussions, such as early elections, could be addressed under the review. Saudi Arabia opposed undertaking informal consultations, preferring an IPCC-52 outcome, reflecting that views diverged, and no agreement was reached, and deferring further discussions to IPCC-53. Following a brief huddle, the Panel adopted its decision without further comment.

Final Decision: In its decision (IPCC-LII.8), the Panel: decides that the TG-FWLGST mandate is fully complete, and notes that the Task Group's final report presents the viable options and their pros and cons, reflecting contributions from Panel members.

Replacement of a Member of the Task Force Bureau

IPCC Secretary Abdalah Mokssit introduced this agenda item (IPCC-LII/Doc.6 and IPCC-LII/INF.8-11) on Monday. He noted the need to nominate someone from the African region to the TFI Bureau, and Hamid Abakar Souleymane (Chad) was elected by acclamation.

Final Decision: In its decision (IPCC-LII-3), the Panel takes note that Sabin Guendehou (Benin) stepped down as a TFI Bureau member and elects Hamid Abakar Souleymane (Chad) for the sixth assessment cycle.

IPCC Gender Policy and Implementation Plan

This agenda item was first taken up on Tuesday morning. IPCC Vice-Chair Ko Barrett introduced the document (IPCC-LII/Doc.9, Rev.1) and elaborated on the mandate and process to develop an IPCC gender policy and plan, highlighting the recommendation of the Task Group on Gender to establish a Gender Action Team (GAT) within the IPCC ExCom. She said the GAT would, *inter alia*, serve as point of contact, propose future refinements to the policy at the beginning of each assessment cycle, and develop a protocol to address informal and formal complaints.

Saudi Arabia, the Maldives, Egypt, and Tanzania supported the work on gender and equity but expressed reservations regarding a reference to "other genders," explaining that their definition of gender refers only to women and men. Sweden stressed the need for transparency and called for mandating the GAT to report regularly to the Panel, instead of as needed.

Mexico also supported a gender focus in IPCC assessments to advance more disaggregated information on gender and climate change. In this regard, Vice-Chair Barrett explained that the Task Group felt they lacked a mandate for addressing IPCC assessments, which has a different process for including gender considerations.

Mexico called for a consistent approach with other international organizations and policies, including the Gender Action Plan under the UNFCCC, and proposed that gender equality be presented as a human right.

The US sought clarification on the protocol or process to address complaints and how it would work in the IPCC process.

On Friday morning, following informal discussions, Vice-Chair Barrett reported back on informal consultations based on concerns expressed in plenary. She reviewed the changes made in the revised IPCC Gender Policy and Implementation Plan, including:

- deletion of the footnote on a definition of gender;

- the addition of text on promoting equal opportunities for all regardless of gender, instead of referring to "other genders"; and
- the modification of language to reflect that the GAT will regularly provide reports to the Bureau and Panel, rather than as needed.

Final Decision: In its decision (Decision IPCC-LII.6), the Panel adopts the IPCC Gender Policy and Implementation Plan as contained in an annex to the decision.

The IPCC Gender Policy has the objectives of:

- enhancing gender equality in IPCC processes, including promoting equal opportunities for all, regardless of gender, within the governance and execution of IPCC activities;
- a gender-inclusive environment, including striving to facilitate participation of those with child or elderly care responsibilities; and
- training and guidance, including raising awareness about gender-related issues and gender equality within the IPCC.

The IPCC Gender Implementation Plan entails, *inter alia*, establishing the GAT, which will:

- oversee and monitor the implementation of actions detailed in the Gender Implementation Plan;
- propose, to the Panel, potential future refinements of the Gender Policy and the Implementation Plan as needed and at least at the beginning of each assessment cycle;
- serve as the point of contact for gender-related issues; and
- develop and implement a protocol and process for addressing complaints made in the context of the Gender Policy and Implementation Plan.

Admission of Observer Organizations

On Tuesday evening, IPCC Secretary Mokssit presented the document for this agenda item (IPCC-LII/Doc.4). He reported that the Bureau had received five applications for observer organization status since IPCC-49 and highlighted an application from the Holy See for admission as a non-member Observer State, with appropriate procedural rights but without the right to vote or be elected.

On Friday, the Panel agreed to admit the five organizations as observers.

The Panel also discussed the Holy See's request for admission to the IPCC as a non-member Observer State, with UNEP and WMO legal advisors recommending that the IPCC follow UN practice. They clarified that the practice regarding non-member Observer States, such as the Holy See or Palestine, specifies, for example, speaking order when making interventions.

The US proposed discussing this specific request during IPCC-53 under the agenda item on Review of the Principles Governing IPCC Work. Germany agreed, signaling that she would raise questions regarding the rights requested by the Holy See, given that, as presented, they are referred to as "similar to those already granted to the EU" when in fact the requested rights appear to exceed the EU's. Saudi Arabia cautioned against setting a precedent in addressing admission of observers under the Review of Principles but agreed to do this on an exceptional basis.

With this understanding, IPCC Chair Lee proposed, and the Panel agreed, to consider the Holy See's request at IPCC-53.

Final Decision: In its decision (IPCC-LII- 4), the Panel decides to grant the following organizations IPCC observer status: Sasakawa Peace Foundation; Dalit Welfare Association (Nepal); Royal Meteorological Society (UK); Institute for Environment

and Development Sustainability; and the Regional Environmental Centre for Central Asia.

Report of the IPCC Conflict of Interest Committee

On Tuesday, Youba Sokona, Chair of the IPCC Conflict of Interest Committee (COI), reported that the nominee for the TFI Bureau had no conflict of interest and his forms were in order. He also said the Committee had reviewed the annual update of the COI form, no conflict of interest was found, and the form was 100% compliant. He said the COI Committee would meet prior to IPCC-53. The IPCC took note of the oral report.

Joint Activities between IPCC and IPBES

On Wednesday, WG II Co-Chair Hans-Otto Pörtner presented the proposal for a joint IPBES/IPCC workshop on biodiversity and climate change (IPCC-LII/INF.7), which will convene from 12-14 May 2020 in London, UK, with financial support from the UK and Norway. He said the workshop would explore synergies and trade-offs between biodiversity protection and climate change mitigation for terrestrial, marine, and freshwater species. He explained that outcomes were expected to contribute to IPCC and IPBES reports and to CBD COP 15 and UNFCCC COP 26.

Delegates generally welcomed the workshop proposal, with many calling it a first step toward long-term IPCC-IPBES collaboration and integration of perspectives. Norway, with the EU, stressed that it should focus on nature-based solutions. Switzerland, supported by WG III Vice-Chair Ramón Pichs-Madruga, highlighted the IPBES Conceptual Framework, which focuses on nature and its contribution to people, and IPBES' experience on indigenous and local knowledge, and called for unifying the IPCC and IPBES glossaries for policymakers.

Mexico, supported by India, Angola, and WG III Vice-Chair Pichs-Madruga, suggested extending the collaboration to the UN Convention to Combat Desertification as well. Sweden recommended inviting someone from the World Ocean Assessment to the workshop.

India, with Brazil, stressed some countries' scarce resources, including for sending scientific expertise to the workshop. Brazil called for the workshop to deliberate on means of implementation and international cooperation and, with Pichs-Madruga, for balance between sectors and visions from all regions. Saint Kitts and Nevis called for a focus on, and participation of, small island developing states.

Brazil urged inclusion of scientists from countries rich in megadiversity and asked to be involved. WG II Co-Chair Pörtner confirmed efforts toward balance in gender and country representation, with scientific expertise as a precondition.

The EU and Angola supported sharing the results of the workshop with Convention Secretariats for their COPs. India and Brazil objected to this unless approved by policymakers first. Pörtner observed that IPCC Rules of Procedure for jointly hosted workshops do not require government participation, but said the workshop is a first step toward more formal collaboration. The US cited, with Pörtner's confirmation, an IPCC rule that workshop proceedings prominently display a disclaimer stating that the workshop report has not been subjected to IPCC review, meaning that governments have not reviewed them.

The Panel took note of the information and proposals.

Review of the Principles Governing IPCC Work

IPCC Secretary Mokssit introduced this agenda item (IPCC-LII/Doc.7) on Thursday morning, explaining that the Principles,

which are up for review every five years, contain information on the IPCC's role, organization, participation, and procedures. Secretary Mokssit invited the Panel to decide whether to initiate the review and, if so, on an appropriate process for the review. The Secretariat then presented a proposal to establish a task group to identify potential elements in need of review, along with draft ToR for such a task group.

Ghana and Japan asked for refinement of the proposal, including timeline, staffing, and budgetary implications, as well as a clarification on a specific set of topics. Saudi Arabia and the Russian Federation questioned the need for discussing a review at this time and proposed postponing the review until the next assessment cycle.

Many others saw a need for addressing IPCC Principles, as well as technical and institutional procedures. On the role of the IPCC, India added that it is time for an introspection, and suggested looking at the challenges the IPCC faces in carrying out its work. Views, however, diverged on the right setting and most efficient manner in which to conduct a focused review.

Switzerland, Ghana, and Venezuela agreed on the proposal to establish a task group. The EU suggested that the process be open to input from civil society organizations. Switzerland proposed that one IPCC Vice-Chair participate in the task group and advocated that the task group conduct an open-ended survey.

The US opposed handing the process to a task group at this time and cautioned against a survey that might result in an unmanageable number of ideas and suggestions. To ensure constructive proposals, he suggested engaging in discussions on specific topics in plenary before deciding whether to establish a task group. Luxembourg, Sweden, Belgium, the UK, Estonia, and Ireland agreed. Belgium, opposed by Saudi Arabia, proposed establishing a task group, specifically on the issue of increasing the effectiveness of the transition from AR6 to AR7.

Delegates also proposed many other elements for review. TFI Co-Chair Kiyoto Tanabe stressed the importance of more frequent updates of inventory guidelines, for which approval sessions are needed in accordance with current rules and procedures. The US noted an opportunity to discuss virtual participation in meetings. Venezuela highlighted the need to ensure regional balance in WGs, while Germany noted gender and code of conduct as additional topics for review. WG I Vice-Chair Edvin Aldrian also suggested addressing rules of procedure for the ExCom.

Discussions continued in an informal group, co-facilitated by Australia and South Africa, with Luxembourg as the Rapporteur.

On Friday morning, Australia reported back on the outcome of informal consultations, noting that while many agreed with the need to initiate a review, they could not agree on a process for undertaking such a review. She explained that, while most did not see a need to establish a task group, participants did identify a number of topics the review could consider. She proposed that the Secretariat prepare a summary of views expressed at IPCC-52 for the Bureau to consider in producing recommendations for IPCC-53. Germany said she could not support tasking the Bureau with work on the issue.

Final Decision: In its decision (IPCC-LII-7), the Panel requests:

- the Secretariat to prepare a summary of views based on discussions on the Review of the Principles Governing IPCC Work during IPCC-52;
- the Bureau to consider the summary prepared by the Secretariat at its next session prior to IPCC-53; and

- the Bureau to make recommendations regarding the review of the Principles Governing IPCC Work, as appropriate, for consideration at IPCC-53.

Progress Reports

WG I Contribution to the AR6: WG I Co-Chair Masson-Delmotte presented the WG I progress report (IPCC-LII/INF.4, Rev.1). She noted completion of the review of the WG I first order draft for AR6, which received 23,462 comments from 750 experts. She said the second order draft is being compiled, while the first order draft of the SPM is being released for review imminently. She confirmed cross-WG coordination, under WG I leadership, to ensure consistency and comprehensiveness, including ongoing work by the WGs on an online glossary to develop common terms, and said the second order WG I draft will be available to WG II/III representatives. She said that WG I is addressing sustainability within the IPCC process and improving the document translation process and transparency, citing a proposal to the ExCom annexed to the WG I report.

Spain, supported by WG I Vice-Chair Fatima Driouech, said the quality of translations was low and called for focal point involvement in language review. Masson-Delmotte called for a clearer translation process. IPCC Secretary Mokssit said translations of the 2019 special reports are almost complete but stressed the need to identify who is responsible for ensuring that translations reflect exactly what the Panel approves. He said scientific reports require more review to ensure full conformity, so WMO translators are used, as they are certified and reliable, and scientific reviewers are also very important. He commented, though, that translations contain a disclaimer that it may be at slight variance with the approved English version.

He confirmed to Spain that the IPCC has established a technical tool to enable focal points and others to review and revise translations before publication to ensure conformity.

Chair Lee said the comments would be recorded in the IPCC-52 report and the Panel took note of the WG I report.

WG II Contribution to the AR6: On Thursday night, WG II Co-Chair Roberts presented the WG II progress report (IPCC-LII/INF.5), highlighting key milestones in the work of the AR6, particularly those related to the SROCC and preparations for the WG II contribution to WG II. The Panel took note of the report.

WG III Contribution to the AR6: On Friday morning, WG III Co-Chair Skea reported on progress in the WG III contribution to AR6 (IPCC-LII/INF.6, Rev.1). He reported completion of review of the zero-order draft of WG III report and ongoing review of the first order draft. He noted ongoing discussions on a draft outline for the SPM and greater cross-WG collaboration than for previous ARs, which will include cross-WG boxes on links between the WGs in the reports. He reported on stakeholder webinars for NGOs and business groups and ongoing efforts to improve transparency and communication of data, including through testimony to governments. The Panel took note of the report.

TFI: TFI Co-Chair Tanabe presented the TFI progress report (IPCC-LII/INF.3) on Friday morning. He reported that the 2019 Refinement to the 2006 IPCC Guidelines for National GHG Inventories is now on the TFI website. He explained that preparatory work for an IPCC Methodology Report on SLCFs has begun, starting on SLCFs for the agriculture, forestry, and other land use (AFOLU) and waste sectors, with work on the energy and industrial sectors to follow.

In response to queries from India and Togo, Tanabe confirmed that: TFI's future plans, subject to provision of resources, include continuous improvements in IPCC-UNFCCC software compatibility and in translating software for all official UN languages; and a methodology for measuring mangroves as sources/sinks of emissions is available in the 2013 Wetlands Supplement.

SILVA (Arbres, Forêts et Sociétés) noted that the Paris Agreement requires more precise inventories than the Kyoto Protocol. Tanabe said the TFI would welcome any proposal on future improvement of inventory guidelines, although acceptance depends on a Panel decision. The Panel took note of the report.

Communication and Outreach Activities: Jonathan Lynn, Head, Communications and Media Relations, provided an update on communication and outreach activities (IPCC-LII/INF.2), noting significant media impact from the release of the SRCLL and SROCC. He cited events during the third lead author meeting for WG II in Faro, Portugal, during which over 130 articles appeared in local media, and events during COP 25 with a pavilion showcasing the IPCC's work. He noted plans to do something similar at COP 26.

Regarding outreach, he mentioned a series of upcoming events in 2020 in Africa in order to reach every country. He also highlighted:

- new and accessible communication materials under the supervision and authority of the WG Co-Chairs;
- a regional event in Nepal, to be held back-to-back with the first Everest Dialogue in April 2020;
- the IPCC Secretariat was undertaking a review of its communications work and strategy; and
- continuing development and enhancement of the new website, including its publication in all six UN languages.

India, noting that the "whole world waits for our reports," underscored the need for significant introspection and for clearer messages. He called for serious consideration on how to package IPCC products so they can be delivered to the masses.

WG I Vice-Chair Nouredine Yassaa said that the IPCC should present the results of the SRCLL during Africa Climate Week in Kampala, Uganda, in March 2020.

SILVA (Arbres, Forêts et Sociétés) emphasized the need to highlight specific issues of relevance to Africa, such as agriculture. He lamented that the graphics and charts in IPCC reports are not useful to Africa, making it difficult to draw conclusions for policymaking in Africa.

The Friends World Committee for Consultation said the increased collation by the IPCC of research on behavior change, individual consumption, and sustainable economic systems has been incredibly helpful. She discussed her organization's role in disseminating information to communities in high-emitting countries about what changes they can make in their lives, noting a positive impact when such information is backed by IPCC research.

Lynn highlighted a surge in popular movements working on climate change since SR15, which is often cited. He acknowledged the need to ensure materials are accessible to everyone, and noted efforts through the Africa outreach programme, including outreach events and regionally tailored material for those events. He said for each IPCC report, a communications strategy is developed with the TSU and the WG-Co-Chairs.

The Panel took note of the report.

Matters Related to UNFCCC and Other International Bodies

Florin Vladu, UNFCCC Secretariat, presented an oral report summarizing IPCC-related activities within the UNFCCC, including a joint UNFCCC-IPCC Working Group and two joint Subsidiary Body for Scientific and Technical Advice (SBSTA)-IPCC special events during COP 25. The latter, he said, was organized to help UNFCCC parties better understand the special reports and help the IPCC and scientific community identify areas for further research. He noted that the Second Periodic Review under the UNFCCC begins in 2020 and will make use of IPCC reports and experts.

The Panel took note of the information provided.

Other Business

WG III Vice-Chair Diana Ürge-Vorsatz asked about refundable travel tickets for upcoming meetings in case of cancellation due to the COVID-19 virus and WG I Vice-Chair Masson-Delmotte asked about the possibility of virtual meetings. Secretary Mokssit said the Secretariat would look into both issues.

Place and Date for IPCC-53

IPCC Secretary Mokssit announced that IPCC-53 would convene in Nairobi, Kenya, at the invitation of UNEP. Noting that the final dates were yet to be confirmed, he said the meeting would take place in late September/early October.

Closing Plenary

IPCC Secretary Mokssit introduced the new IPCC Deputy Secretary, Ermira Fida (Albania), who formerly led the Global Environment Facility's Climate Change Adaptation Unit at UNEP. Welcoming her appointment, France also acknowledged, with appreciation, the work of former IPCC Deputy Secretary Kerstin Stendahl.

In concluding remarks, IPCC Chair Lee thanked delegates for their work and efforts, which "paid respect to the spirit of cooperation and upheld the integrity of the IPCC, and objectivity of its assessment activities." He thanked the IPCC Secretariat and everyone else who help make IPCC-52 a success, and paid tribute to Annie Curtain of the IPCC Secretariat, who is retiring after more than 20 years of service. He gavelled the meeting to a close at 7:33 pm.

A Brief Analysis of IPCC-52

In September 2019, UN Secretary-General António Guterres called on all sectors of society to mobilize for what he called a Decade of Action to deliver the Sustainable Development Goals (SDGs). In doing so, he identified climate change as one of the key challenges that threaten achievement of the SDGs and, generally, the prospects for the 21st century.

Indeed, as the Intergovernmental Panel on Climate Change (IPCC) has pointed out, this decade is critical for climate action. Greenhouse gas (GHG) emissions would have to decrease 45% from 2010 levels by 2030 and continue to fall to zero by 2050 to limit warming to 1.5 to 2°C. We are now halfway between 2010 and 2030, when emissions should have peaked. Yet emissions continue to rise. This is not a good start.

In terms of its own work, the IPCC began the decade of action early. In October 2018, it delivered the Special Report on the Impacts of Limiting Global Warming of 1.5°C above Pre-industrial Levels (SR15), and in 2019, the Special Report

on Climate Change and Land (SRCCL), and the Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC), as well as a Refinement to the 2006 Guidelines for GHG Inventories, which countries use to report on their emissions.

For the first time since IPCC-47, the Panel, gathering in Paris for its 52nd session, did not have to adopt a report and approve its Summary for Policymakers (SPM). Instead, IPCC-52 had to provide an indicative outline and additional guidance notes for the authors of the Synthesis Report (SYR) of the Sixth Assessment Report (AR6), scheduled for delivery in May 2022. IPCC-52 also had to take up a number of other issues that had been on the back burner while it approved the special reports, including its regular review of IPCC procedures, gender policy, and relationship with other UN bodies, particularly the United Nations Framework Convention on Climate Change (UNFCCC).

This analysis looks briefly at how IPCC-52 delivered on its agenda and how much has changed since the Panel approved its last SYR outline.

The SYR Outline: Synthesizing the Unknown?

The last time the IPCC approved a SYR outline was at IPCC-32 in October 2010, in Busan, Republic of Korea. This took place just as the Panel was also addressing the recommendations of the InterAcademy Council's (IAC) independent review of the IPCC, as had been requested by the UN Secretary-General and then IPCC Chair Rajendra Pachauri in the aftermath of public criticism over the discovery of errors in its Fourth Assessment Report (AR4). Responding to that review led to IPCC-32's decisions on processes to address errors in previous reports and the treatment of grey literature and uncertainty. That session also initiated reviews of IPCC management and governance, communication, and conflict of interest policies, all of which have given the Panel a stronger footing.

Much has changed since then. Today, ten years later, the fact that the IPCC manages to spend almost all of its time producing scientific reports is a reassuring sign that those changes in the IPCC's process and operations brought real improvements.

Some things, however, have not changed. In addressing the SYR outline proposed after a scoping meeting in Singapore, the Panel got bogged down on linkages to the UNFCCC, in particular anything implying obligations or responsibility. Thus, much of the debate centered around concepts such as the carbon budget, loss and damage, means of implementation, avoided emissions, behavioral changes, and residual risks that reduce adaptation options. Even seemingly benign references to a "just transition" were debated, given, on the one hand, the fear of near-term mitigation commitments for some countries that lack the means to respond, and, on the other, the need to ensure that no social group is left behind in the unprecedented economic and social transition needed in such a short time.

Some participants expressed concern that so much time was spent on wording for what was only indicative guidance to SYR authors. Although it seemed at the start of the session that ample time had been allocated to address all issues on the agenda, the meeting, yet again, went into overtime. Many participants appealed to trust the authors and the process to deliver science-based, balanced statements. In the end, most concerns were accommodated. While this negotiating mode does not bode well for the work ahead, when the Panel will have to approve line-by-line the three Working Groups' SPMs and finally the SYR SPM, some participants hoped that the discussions might at least serve

as a friendly reminder to the writing teams of the varied audience for the reports.

Aligning with the UNFCCC

Besides the SYR outline approval, IPCC-52 had several items on its agenda which, given the schedule of work in the next two years leading up to the approval of the AR6, could not be postponed much longer. Perhaps the most anticipated item referred to the alignment of the five- to seven-year cycle of the IPCC with the five-year cycle of the Global Stocktake (GST) under the Paris Agreement.

The first GST is scheduled for 2023 and will be informed by the AR6; the second GST is scheduled for 2028, and therefore, if no changes are made to the IPCC cycle, the AR7 would not be completed on time to inform the GST. Participants discussed the possibility of accelerating the transition between assessment cycles and completing the AR7 in time for it to contribute to the GST. If the IPCC begins the next assessment cycle early, with the aim of producing the AR7 in time for the second GST, it would require early elections and early establishment of Technical Support Units (TSUs).

And yet, positions on a potential alignment were mixed, displayed in what Chair Lee described as “heated interventions in a divided house.” Countries with particular climate change vulnerabilities, including small island developing states, had strong hopes for agreement that would ensure that the AR7 products inform the second GST in 2028 with the latest available science. They see alignment to the five-year GST cycle as both a matter of necessity—to prompt accelerated action and increased ambition by the global community—and duty for the IPCC. Others were less eager, opposing any pressure and calling, rather, for a reflection on what an alignment might imply for the IPCC. Several perceived these debates to be constructive in shifting the focus from amending the length of IPCC cycles to increasing the effectiveness of the IPCC’s work. The Panel will continue discussions on this matter at IPCC-53.

Discussions on the alignment informed recurring issues on the agenda. Participants added consideration of effective transitions of cycles and potential early elections to the list of potential IPCC procedures to be reviewed. They also highlighted, once again, that whatever and whenever IPCC products are finalized, the importance lies in communication, so that scientific findings are translated and accessible to various audiences and the wider public.

But to reach the wider public, the IPCC reports must be translated into other languages. The delay and quality of translations have long been a source of serious concern. Translation is, therefore, a key issue, and not an easy one to resolve. As Jonathan Lynn, IPCC Communications and Media Relations Head, said, messages strike home only if they are locally relevant. The support for IPCC reports among youth and civil society climate activists underscores the need for accessibility and readability for everyone, everywhere.

Looking Ahead: The Decade of Action

It is clear that 2020 will be a turning point in the attempt to steer the world towards a more sustainable path. At the UN level at least, the Decade of Action for the SDGs starts strong, with the World Ocean Conference in Lisbon, Portugal, in June later this year, followed by the UN Biodiversity Conference in Kunming, China, scheduled for October, and the UNFCCC Climate

Conference in the UK a month later. As UN Secretary-General Guterres suggested, if 2020-2030 is the decade of action, 2020 is the year of urgency.

With current pledges under the UNFCCC putting the world on a path to warm 3-4°C by 2050, this urgency cannot be understated. While there might be some positive signs relative to a decade ago—the groundswell in climate awareness and movement for climate action, the unexpected growth of renewable energy, and the increasing engagement of the business, industry, and banking sectors—the trends are still worrisome. According to the Global Carbon Project, fossil fuel emissions grew 1.5% in 2017 and 2.1% in 2018, and are projected to grow another 0.6% in 2019. Sadly, the only observable reduction in emissions of late is due to the onset of coronavirus disease 2019 (COVID-19) in China and the resulting quarantine, which has reduced industrial output of key sectors, and consequently reduced emissions. But it is not yet clear if these emissions reductions will be sustained or whether they will be reversed when the crisis ends.

As a seasoned participant said, looking back at the last IPCC assessment cycle, it feels like a long time has passed. The climate crisis has risen in the collective consciousness and the IPCC’s messages are reaching more people than ever before. By the end of the Decade of Action, she warned, the IPCC’s message is clear that things must change toward a more sustainable path.

Upcoming Meetings

25th Meeting of the Board of the Green Climate Fund (GCF):

The 25th meeting of the GCF Board will convene to help guide assistance to developing countries in meeting the climate challenge. **dates:** 10-12 March 2020 **location:** Geneva, Switzerland **www:** <https://www.greenclimate.fund/boardroom/meeting/b25>

35th Meeting of the Adaptation Fund Board: The Adaptation Fund, established under the Kyoto Protocol, finances projects and programmes that help vulnerable communities in developing countries adapt to climate change. The Fund is supervised and managed by its Board. The World Bank serves as the Fund’s trustee on an interim basis. Since 2019, the Adaptation Fund has served the Paris Agreement. **dates:** 30 March – 3 April 2020 **location:** Bonn, Germany **www:** <https://www.adaptation-fund.org/event/35th-meeting-of-the-adaptation-fund-board/>

NAP Expo 2020: In 2020, NAP Expo will convene for the seventh time. The event is organized by the Least Developed Country Expert Group under the UNFCCC, in collaboration with various bodies and organizations, to promote exchange of experiences and foster partnerships between a wide range of actors and stakeholders on how to advance National Adaptation Plans (NAPs). **dates:** 30 March – 3 April 2020 **location:** Gaborone, Botswana **www:** <https://unfccc.int/event/nap-expo-2020>

IPCC WG III AR6 Third Lead Author Meeting: The third Lead Author meeting of IPCC Working Group III will convene to continue preparations for the AR6. **dates:** 15-19 April 2020 **location:** Quito, Ecuador **www:** <http://www.ipcc.ch/calendar>

Africa Climate Week (ACW): The ACW is part of Regional Climate Weeks that are held annually in various regions. Regional Climate Weeks are organized by the Nairobi Framework Partnership, which supports developing countries in preparing and implementing their NDCs. **dates:** 20-24 April 2020 **location:** Kampala, Uganda **www:** <https://unfccc.int/event/africa-climate-week-2020>

TFI: First Expert Meeting on SLCFs: This initial expert meeting on SLCFs will focus on the agriculture, forestry, and other land use and waste sectors. **dates:** 27-29 April 2020 **location:** Rome, Italy **www:** <http://www.ipcc.ch/calendar>

IPBES-IPCC Workshop on Biodiversity and Climate Change: This joint workshop will bring together 50 experts to explore the interlinkages between biodiversity and climate change and will be led by a scientific steering committee. The workshop will result in a report in advance of CBD COP 15 and UNFCCC COP 26, to inform the respective Convention processes. This workshop is being co-sponsored by IPBES and IPCC and hosted by the UK with additional support from Norway. **dates:** 12-14 May 2020 **location:** London, UK **www:** <https://ipbes.net/node/36567>

Sustainable Energy for All Forum 2020: Focusing on the theme, “Building Speed, Reaching Scale, Closing the Gap,” the 2020 edition of the Sustainable Energy for All Forum will provide a global platform to mobilize resources, connect partners, and showcase action to realize the promise of the sustainable energy revolution for everyone. **dates:** 26-28 May 2020 **location:** Kigali, Rwanda **www:** <http://seforallforum.org/forum-2020>

IPCC WG I AR6 Fourth Lead Author Meeting: The fourth Lead Author meeting of IPCC Working Group I will convene to continue preparations for the AR6. **dates:** 1-5 June 2020 **location:** Santiago, Chile **www:** <http://www.ipcc.ch/calendar>

52nd Sessions of the UNFCCC Subsidiary Bodies: The 52nd sessions of the UNFCCC Subsidiary Bodies will meet to prepare for COP 26. **dates:** 1-11 June 2020 **location:** Bonn, Germany **www:** <https://unfccc.int/event/first-sessional-period-sb-52>

2020 UN Ocean Conference: Sustainable Development Goal (SDG) Goal 14 is to conserve and sustainably use the oceans, seas and marine resources for sustainable development. The Governments of Kenya and Portugal will co-host a UN Conference to Support the Implementation of SDG Goal 14 (Ocean Conference), focused on the theme “Scaling up ocean action based on science and innovation for the implementation of Goal 14: stocktaking, partnerships and solutions.” The Conference, which is one of the milestones of the UN Secretary-General’s Decade of Action for the SDGs, will advance science-based innovative solutions for global ocean action. **dates:** 2-6 June 2020 **location:** Lisbon, Portugal **www:** <https://www.un.org/en/conferences/ocean2020>

TFI: Second Expert Meeting on SLCFs: This second expert meeting on SCLFs will focus on the energy and the industrial processes and product use sectors. **dates:** 30 June - 2 July 2020 **location:** Istanbul, Turkey **www:** <http://www.ipcc.ch/calendar>

TFI: 32nd Meeting of the TFI Bureau: The TFI Bureau will meet immediately following the Second Expert Meeting on SCLFs. **dates:** 3 July 2020 **location:** Istanbul, Turkey **www:** <http://www.ipcc.ch/calendar>

Latin America & Caribbean Climate Week (LACCW): The LACCW is part of Regional Climate Weeks that are held annually in Africa, Latin America and the Caribbean, and Asia-Pacific. Regional Climate Weeks are organized by the Nairobi Framework Partnership, which supports developing countries in preparing and implementing their NDCs. **dates:** 6-10 July 2020 **location:** Santo Domingo, Dominican Republic **www:** <https://www.regionalclimateweeks.org/>

Global Adaptation Action Summit: The Netherlands will host the Global Commission on Adaptation (GCA) Climate Adaptation Summit in October 2020. Following the UN Climate Action Summit in September 2019, convened by UN Secretary-General António Guterres, the GCA began its Year of Action, which will present its findings. **date:** 22 October 2020 **location:** Netherlands **www:** <https://climateadaptationsummit.gca.org/>

IPCC-53: This session will meet in Nairobi, Kenya, with dates to be confirmed. **dates:** late September/October 2020 **location:** Nairobi, Kenya **www:** <https://www.ipcc.ch/calendar/>

For additional upcoming events, see <http://sdg.iisd.org/>

Glossary

AR6	Sixth Assessment Report
AR7	Seventh Assessment Report
CBD	Convention on Biological Diversity
CDR	Carbon dioxide removal
COP	Conference of the Parties
DDC	Data Distribution Centre
ExCom	Executive Committee
FiTT	Financial Task Team
GAT	Gender Action Team
GHG	Greenhouse gases
GST	Global Stocktake
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
SDGs	Sustainable Development Goals
SLCFs	Short-lived climate forcers
SPM	Summary for Policymakers
SR15	Special Report on Global Warming of 1.5°C
SRCCCL	Special Report on Climate Change and Land
SRM	Solar radiation management
SROCC	Special Report on the Ocean and Cryosphere in a Changing Climate
SYR	Synthesis Report
TFI	Task Force on National Greenhouse Gas Inventories
TG-Data	Task Group on Data Support for Climate Change Assessments
ToR	Terms of reference
TSU	Technical Support Unit
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WG	Working Group
WMO	World Meteorological Organization