

**FIFTY-THIRD (bis) SESSION OF THE IPCC  
Electronic Session, 22 – 26 March 2021**

IPCC-LIII(bis)/INF. 2  
(3.III.2021)  
Agenda Item: 4.3  
ENGLISH ONLY

**PROGRESS REPORTS**

**Working Group III contribution to the Sixth Assessment Report**

(Prepared by the Co-Chairs of Working Group III)

(Submitted by the Secretary of the IPCC)

## PROGRESS REPORTS

### Working Group III contribution to the Sixth Assessment Report

#### 1. Introduction

The following is a report on the activities of Working Group III during the IPCC Sixth Assessment Report (AR6) cycle, since the Fifty-Second Session of the IPCC (IPCC-52) in February 2020.

The report covers:

- Preparation of the Working Group III contribution to the Sixth Assessment Report, including:
  - Collation of Expert Review comments of the First Order Draft
  - Third Lead Author Meeting, held virtually, April 2020
  - Light Touch Stocktake author meeting, held virtually, October 2020
  - Completion of the Second Order Draft of the Working Group III contribution to the Sixth Assessment Report, January 2021
  - Coordination of cross-Working Group topics
- Working Group III contribution to the Synthesis Report
- Stakeholder engagement
- Working Group III contribution to TG-Data
- COVID-19 impact on the Working Group III schedule
- Technical Support Unit
- Communications and outreach

#### 2. Preparation of the Working Group III contribution to the Sixth Assessment Report

##### 2.1 Collation of Expert Review comments of the First Order Draft of the Working Group III contribution to the Sixth Assessment Report

The First Order Draft of the Working Group III contribution to the AR6 was made available for expert review from the 13 January to 08 March 2020. 2,154 experts registered to review the report. In total, 21,703 comments were received from 825 expert reviewers.

##### 2.2 Third Lead Author Meeting (eLAM3)

In April 2020, Working Group III delivered the first virtual IPCC Lead Author Meeting. Originally planned to be held in Quito, Ecuador, the decision to hold the meeting virtually was taken as a result of the emerging COVID-19 pandemic. The meeting was attended by 287 participants, including authors, Bureau members and Technical Support Unit (TSU) members from across the three Working Groups. As the meeting was unprecedented at the time, a full report detailing the planning, delivery and author feedback was produced by the Working Group III Co-Chairs and TSU<sup>1</sup>. Overall, feedback from participants was positive and – despite some limitations, such as connectivity issues for some – the main objectives of the meeting as outlined below were met.

The Working Group III TSU organised three plenary sessions, as well as a number of Breakout Group calls and meetings with Bureau members, Coordinating Lead Authors, Review Editors and Chapter Scientists. Chapter teams were encouraged to coordinate their own schedule of chapter meetings, with some chapters choosing to hold these during the virtual Third Lead Author Meeting (eLAM3) and others preferring to hold these post-eLAM3.

---

<sup>1</sup> The IPCC's first virtual Lead Author Meeting: An evaluation by the Technical Support Unit of Working Group III of the IPCC <https://www.ipcc.ch/site/assets/uploads/2020/07/IPCC-WG-III-TSU-Report-Evaluating-the-IPCCs-first-Virtual-Lead-Author-Meeting.pdf>

Objectives of the meeting included: i) for author teams to further develop the content of chapters and address comments submitted by Expert Reviewers during the review of the First Order Draft; ii) to address issues that cut across the report and the Working Groups; iii) to further develop the planning process for the Summary for Policymakers and the Technical Summary; and, iv) to develop a future workplan for the production of the Second Order Draft (SOD).

Following the eLAM3, the Working Group III TSU participated in a number of meetings with Secretariat and other Working Group TSU members to share lessons learned and inform planning discussions for future virtual IPCC meetings.

### **2.3 Light Touch Stocktake author meeting**

As a result of the ongoing COVID-19 pandemic, the Working Group III schedule was revised, including the postponement of the Second Order Draft Expert and Government Review until January 2021 (see 6 below for further information on the impact of COVID-19 on the Working Group III schedule). As a result of this change to the schedule, Working Group III held a Light Touch Stocktake author meeting during the week of 12 October 2020. The objective of the meeting was to assess progress and to ensure continued motivation within the chapter teams as they worked towards the Second Order Draft and first drafts of the Summary for Policymakers and Technical Summary.

The Working Group III TSU introduced an interim-Second Order Draft (SOD) submission deadline, to allow for an additional round of TSU and Bureau feedback on the drafts in October 2020. This was well received by the authors and provided input into the Light Touch Stocktake meetings.

The Light Touch Stocktake meeting comprised of a plenary session (repeated to accommodate western and eastern time zones), Breakout Group meetings, an SPM Meeting and some 'virtual coffee sessions', to allow authors to engage socially.

The meeting was attended by 253 participants, including authors, Bureau members and TSU members from across the three Working Groups. Key outcomes and conclusions from the Light Touch Stocktake included: that authors were engaged and positive about the progress of their chapters and the report; that authors were enthusiastic to recommence work on the Summary for Policymakers; and that further work was required to clarify key concepts to ensure consistency across the Working Group III chapters and across Working Groups.

### **2.4 Completion of the Working Group III Second Order Draft**

Following the eLAM3 and Light Touch Stocktake meetings, Working Group III authors developed the Second Order Draft which is now available for Government and Expert Review, taking place 18 January to 14 March 2021.

The first drafts of the Summary for Policymakers (SPM) and Technical Summary are also available for review. Development of these was undertaken in parallel with chapter drafting in order to enable iteration between the SPM and the underlying assessment. A meeting of the SPM author team was held in November 2020, focusing on workplan development and section drafting. Thereafter followed a more intensive period of work and meetings with the SPM author team to develop the SPM content and to ensure that the text was concise, coherent, and minimised repetition. Meetings focused on the development of the Technical Summary were also held in October and November 2020, guided by Working Group III Bureau leads and TSU staff, and were aimed at finalising the Technical Summary outline, narrative and authors' contributions in respective sections, with further iterations of the draft produced, reviewed and agreed during December. Figures for both the SPM and Technical Summary were developed to support key messages, with authors and Working Group III Bureau members advising on figure selection. The authors worked closely with an external graphic design contractor as part of the development process. Authors, Working Group III Bureau members, and TSU worked closely to draft and refine the Frequently Asked Questions (FAQs), including an internal interim review of second draft FAQs in September 2020.

## **2.5 Coordination of cross-Working Group topics**

Working Group III Bureau members, the TSU and authors have continued to engage in cross-Working Group activity. Particular attention has been paid to cross-Working Group boxes, and Working Group III and Working Group II have collaborated closely to this end, agreeing four cross-Working Group boxes for inclusion in the Working Group III SOD that cover the topics of (i) Economic benefits from avoided climate impacts along long-term mitigation pathways; (ii) Climate change and urban areas; (iii) Mitigation and adaptation via the bioeconomy; and (iv) Solar Radiation Modification.

There have been extensive discussions with Working Group I regarding handover issues such as climate emulators and carbon budgets.

Productive work continues on the definition of key terms in the shared AR6 glossary.

## **3. Working Group III contribution to the Synthesis Report**

In April 2020, the Working Group III Bureau made its nominations for members of the Core Writing Team and Review Editors for the Synthesis Report. In line with the decision that Bureau members could not be both Review Editors and members of the Scientific Steering Committee for the Synthesis Report, the Working Group III Co-Chairs submitted revised proposals for Review Editors in May 2020.

Working Group III representatives on the Core Writing Team and Scientific Steering Committee of the Synthesis Report took part in the Synthesis Report Core Writing Team Meeting 1 that was held 25-29 January 2021. Working Group III, with the support of its TSU, organised a Working Group Breakout Group in the early part of the meeting. Working Group III Co-Chairs, Vice-Chairs and the TSU Head of Science participated actively in plenaries and section meetings. Vice-Chairs helped by co-chairing section meetings. The Working Group III Co-Chairs provided advice for the Synthesis Report TSU on the allocation of authors to Synthesis Report sections. TSU members assisted with logistical aspects of parts of the meeting.

## **4. Stakeholder Engagement**

During February-March 2020, Working Group III held a series of webinar-based workshops engaging authors and representatives from business and environmental NGOs in the lead up to the Third Lead Author Meeting. These were sector- and topic-based sessions, with their topics identified following meetings with the Business and Industry NGOs (BINGOs) and Environmental NGOs (ENGOS) groups at COP 25. The aim of the sessions was to update stakeholders on work-in-progress with report drafting, and to receive feedback from them on the approach taken and to identify ways in which the report could enhance wider awareness and inform debate. Working Group III authors across all the report chapters were engaged with these sessions. They were held with the support of Climate Action Network and the International Chamber of Commerce. Hundreds of representatives joined from a wide range of organizations. Fourteen sessions, lasting two to two-and-a-half hours, took place over three weeks, with four key themes identified per stakeholder group.

The experiences of running these sessions identified that some stakeholders, particularly in the business community, are not familiar with the IPCC report reviewing process and would benefit from a cross-Working Group introduction to the IPCC and its processes/findings. In October 2020, Working Group III led a pan-IPCC event with the International Chamber of Commerce, engaging business stakeholders in the upcoming reviews for the Working Group II and Working Group III Second Order Drafts. The webinar, titled 'Climate Science and Institutional Policy: An Introduction to the IPCC and its Reports for Business Leaders', was an opportunity for the business community to gain key insights into the work of the IPCC and the development of the next report, as well as better understand how business contributions can support the work of the IPCC. Participants also had the opportunity to share how their businesses are using the latest climate science to help shape their corporate strategies. Speakers from the IPCC included Thelma Krug (IPCC Vice-Chair), Jonathan Lynn (Head of Communications) and Melinda Tignor (Head of Working Group II TSU).

Stakeholder engagement sessions have also been scheduled for February and March 2021, following a similar format to the sessions held in 2020 with business and environmental NGOs run in partnership with the International Chamber of Commerce and the Climate Action Network. As proposed and supported at the 59<sup>th</sup> Session of the IPCC Bureau, separate engagement sessions with governments are being held.

## **5. Working Group III contribution to the Task Group on Data Support for Climate Change Assessments (TG-Data)**

During e-LAM3, authors were introduced to a new document that provides step-by-step guidance as to how to implement TG-Data FAIR Data Principles (Findable, Accessible, Interoperable, and Reusable) in all figures and exhibits proposed for the Summary for Policymakers and Technical Summary.

Working Group III is participating in the wider TG-Data discussions on quality control and documentation requirements for the public release of codes that underpins figures in the IPCC assessment. Working Group III authors and TSU staff attended the virtual TG-Data members conference held over six weeks from 06 October to 11 November.

The Working Group III Co-Chairs have reached agreements with the International Energy Agency (IEA) and the European Commission's in-house Emissions Database for Global Atmospheric Research (EDGAR) regarding author access to various databases holding published and unpublished data that will help authors in assessing the latest trends and drivers in energy and emissions. The agreements take full account of the IPCC principles and procedures regarding unpublished material, including reviewer and Review Editor access to material.

The Working Group III Sixth Assessment scenarios database is hosted by the International Institute for Applied Systems Analysis (IIASA) in association with the Integrated Assessment Modelling Consortium (IAMC).

## **6. COVID-19 Impact on the Working Group III schedule**

COVID-19 has had a significant impact on Working Group III authors, with some contracting the disease, and many working under difficult circumstances, including, for those working from home, balancing domestic and professional commitments, and for many others, discharging increased responsibilities in their day jobs. Following the Third Lead Author Meeting, the Working Group III Bureau consulted with its authors on the feasibility of the October 2020 SOD submission as a two-step process: at the end of April 2020, the view presented by Coordinating Lead Authors was that it was still possible but challenging; based on feedback received from Coordinating Lead Authors and Review Editors at the end of June 2020, the Working Group III Bureau decided that it was no longer possible to produce a Second Order Draft that was credible in terms of scientific rigour and inclusivity according to the Strategic Planning Schedule in place at the time. The IPCC Executive Committee (ExCom) at its 81<sup>st</sup> meeting on 01 August 2020 agreed to the postponement of the following milestones to new dates as follows:

- Cut-off date for literature submitted for publication: 14 December 2020
- Second Order Draft (SOD) Government review period: 18 January – 14 March 2021
- Fourth Lead Author Meeting (LAM4): 5 days between 12-30 April 2021

The Working Group III fourth Lead Author Meeting (LAM4) had been rescheduled for a five-day period within 12-30 April 2021. Following its January meeting, the Working Group III Bureau consulted authors on the feasibility of their attending an in-person meeting. Difficulties were foreseen by authors across all categories (role, region, gender), most strongly by authors from certain categories (e.g. by those from the South-West Pacific and South America; by women more than men). It was concluded that an inclusive in-person meeting would not be possible during April. Many authors, however, remained hopeful that travel and other restrictions associated with the COVID-19 pandemic might

ease over subsequent months and expressed their interest in attending later in-person sessions of LAM4.

The Working Group III Bureau has therefore decided to hold a LAM4 starting with a set of virtual events in the week 19-23 April followed up by focused breakout groups and chapter meetings in the subsequent weeks and months. Some of these later events may be held physically if and when conditions permit, subject to Trust Fund Support for developing country participation.

The Working Group III Bureau is still hopeful that the Final Draft can be submitted as currently planned on 09 August 2021 followed by an approval session in January 2022. However, this is far from certain as the Working Group III schedule was already tight and the production of an IPCC report with only two physical LAMs is unprecedented. The Working Group III Bureau will review the feasibility of the current schedule in early April when the SOD review comments are in and authors have been consulted.

As previously reported, COVID-19 had resulted in the closure of both TSU host institutions (Imperial College London and Ahmedabad University), with all Working Group III TSU staff working from home, although staff based at Ahmedabad University currently have limited access to work from site. Overall, the move to remote working remains successful. However, the Co-Chairs recognise that some members of the team are now working in difficult circumstances at home, for example with elderly relatives or children.

## **7. Technical Support Unit**

In light of the impacts of COVID-19 (see above), the Co-Chairs are in discussion with the co-sponsors of the Working Group III TSU, the Engineering and Physical Sciences Research Council and the UK Department for Business, Energy and Industrial Strategy, regarding the extension of financial support to cover completion of the AR6 cycle including outreach.

## **8. Communications and Outreach**

During the virtual LAM3 in April 2020, extensive communications messaging work was undertaken with authors. All chapters undertook virtual consultations and provided written feedback on communications messages and talking points that were developed based on the First Order Draft in early 2020. This work was consolidated and reported to all authors working on the report, linking into discussion on the Summary for Policymakers. Due to the virtual nature of LAM3, media training was not undertaken as originally planned, and will be postponed until an in-person meeting is organized.

In November 2020, a project proposal was submitted to the Executive Committee, led by Working Group III and supported by all Working Groups, to pursue training for all AR6 authors in effective communication with policymakers. The proposal was successful, and the communications team is currently in the process of developing a programme in partnership with an external contractor. The training will likely be delivered in three stages, prior to each Working Group approval plenary, with the first session tentatively scheduled for June 2021.

As part of eLAM3, a virtual outreach event was held on 30 April 2020 entitled 'What do we need to know about the recent IPCC findings for Latin America?'. The event was held in collaboration with the Ministry of the Environment, Government of Ecuador, Climate Development Knowledge Network and Fundación Futuro Latinoamericano. The sessions were chaired by Gabriela Villamarin from Fundación Futuro Latinoamericano and Roberto Sanchez, Vice-Chair of IPCC Working Group II, and was formally opened by the Ministry of Environment, Government of Ecuador, with an introduction from Jim Skea, Co-Chair of IPCC Working Group III. The event was held in Spanish, with a real-time Spanish-English interpreter, and was open to the public.

The Sixth Assessment Report communications strategy continues to be implemented. The Working Group III Co-Chairs, Bureau Members, authors, and TSU members remain actively engaged in

communicating the plans and work of Working Group III. The restrictions as a result of COVID-19 have limited opportunities to participate in as many activities as usual, although opportunities to deliver outreach through virtual meetings and live streaming have been taken.