1. OPENING OF THE SESSION

Mr Hoesung Lee, Chair of the Intergovernmental Panel on Climate Change (IPCC), called the 49th Session of the IPCC (IPCC-49) to order on Wednesday 8 May 2019 at the Kyoto International Conference Centre in Kyoto, Japan.

The Secretary of the IPCC, Mr Abdalah Mokssit, presided over the opening session. He welcomed participants and expressed gratitude to the Government of Japan for hosting the meeting.

In his opening statement, the Chair of The IPCC highlighted Japan’s leadership in hosting and fully supporting the Technical Support Unit of the Task Force on National Greenhouse Gas Inventories (TFI TSU) at the Institute for Global Environmental Strategies. He said that the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories is the second product of the Sixth Assessment cycle to be considered by the Panel. Governments use IPCC methodologies to develop their national greenhouse gas inventories, comprising estimates of greenhouse gas emissions and removals, which are reported to the UNFCCC, including processes such as the Paris Agreement. The 2019 Refinement will improve this transparency and reporting process by ensuring that the methodology used to determine these inventories is based on the latest science. He wished participants a harmonious and fruitful meeting.

Vice-Minister Morimoto of Japan welcomed participants and introduced the video message by Mr Yoshiaki Harada, Minister of the Environment of Japan. Mr Harada welcomed participants on behalf of the Government of Japan and noted the crucial role of the IPCC in developing a scientific foundation to tackle climate change, which has led to the establishment of the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement. He said that as the presidency of the G20 in 2019, Japan will become a model for the world in the achievement of a virtuous cycle between the environment and growth.

Mr Daisaku Kadokawa, Mayor of Kyoto City, welcomed participants to Kyoto and reminded them of the illustrious past that Kyoto has in terms of climate change as the birthplace of the Kyoto protocol. Kyoto is a trailblazer in sustainable development, and part of the 100 Resilient Cities network. In aiming at net zero GHG emissions, Kyoto managed to reduce the volume of waste from 820,000 tonnes to 410,000 tonnes in partnership with its citizens. The means of transportation has been gradually shifted from private cars to public transportation, the share of which increased by 30%. “DO YOU KYOTO?” is now known across the world as a slogan encouraging people to take eco-friendly actions.

Jian Liu, Director of the Science Division of the UN Environment Programme, noted that Japan is renewing its leadership on combating climate change, in addition to having provided solid foundational support to the TFI work. He reminded participants of the old adage, if you can’t measure it, you cannot manage it and said this is an elementary fact as the world needs to step up its ambitions to achieve the goals of the Paris agreement. Political leadership is sorely needed. Which is why the continued leadership from Japan is essential.
Florin Vladu, UNFCCC Secretariat, noted that 2019 marks the beginning of an exciting new phase in the collective efforts to address climate change. This provides new opportunities to strengthen our collaboration. He said that the 24th session of the Conference of the Parties (COP24) to the UNFCCC was a triumph for multilateralism in that it approved the Paris agreement work programme. He emphasized the vital inputs that IPCC’s past and forthcoming products play in reaching the goals of the Paris Agreement and expressed appreciation for making available the Special Report on Global Warming of 1.5 °C in such a short for time.

The Chair of the IPCC then introduced the provisional agenda as contained in document IPCC XLIX/Doc.1, Rev. 1. France and Norway made statements. There was a request to the Secretariat to report on the relationship between Intergovernmental Panel on Biodiversity and Ecosystem Services, IPBES and IPCC and the fact that, a technical paper had been requested by IPBES plenary. To be discussed under AOB. It was also noted that short-lived climate forcers needs to be discussed in detail. The provisional agenda was then adopted.

2. APPROVAL OF THE DRAFT REPORT OF THE 48TH SESSION OF THE IPCC

The draft report of the 48th Session of the IPCC as contained in document IPCC-XLIX/Doc. 4, was presented and approved without changes.

3. IPCC TRUST FUND PROGRAMME AND BUDGET

3.1. Budget for the years 2019, 2020, 2021 and 2022

The Chair of the IPCC opened the Agenda Item 3.1, document IPCC-XLIX/Doc.2, on IPCC Programme and Budget – Budget for the years 2019, 2020, 2021 and 2022. The Agenda Item was introduced by Ms Judith Ewa, Programme Officer. The Financial Task Team (FiTT) was established. The FiTT is open-ended with a core membership which comprises Germany, Pakistan, Saudi Arabia and United States of America and co-chaired by Mr Amjad Abdulla (Maldives) and Ms Helen Plume (New Zealand). The Republic of Korea indicated that it had been making contributions steadily to the IPCC Trust Fund since 2006. Its contributions had increased to CHF 120,000 annually since 2009 and it has made a commitment to continue contributing until 2020. It announced its new commitment to make a contribution of WON 500 million (approximately CHF 430,000), every year, to fund the operations of the AR6 Synthesis Report Technical Support Unit for the next five years, starting from 2019. It further stressed its commitment to continue to actively participate in the long-term financial stability efforts of the IPCC. Estonia confirmed that it had made a contribution to the IPCC Trust Fund in February 2019. The Chair of the IPCC instructed the FiTT to report back to the Panel with its recommendations on Saturday, 11 May 2019.

The FiTT met six times during the week to deliberate on key issues relating to the IPCC programme and budget, including the revised 2019, the proposed 2020 budget, the forecast budget for 2021 and the indicative budget for 2022. New activities on short-lived climate forcers were also considered and incorporated in the budget. The hiring of a consultant to work on the financial stability of the IPCC was also considered by the FiTT and it was noted that there was not enough guidance from the Panel. Therefore no budget allocation was made.

No budget allocation was made given the discussions in Plenary which indicated that there was no further need for this activity. Recommendations from the FiTT were submitted to the Panel by Ms Helen Plume, on behalf of her Co-Chair, Mr Amjad Abdulla.

The IPCC adopted the revised budget for 2019 and proposed budget for 2020, noted the forecast 2021 budget and the indicative budget for 2020 and adopted Decision IPCC-XLIX-8. on the IPCC Trust Fund Programme and Budget as contained in Annex 1.
3.2. Resource mobilization

The Chair of the IPCC opened Agenda Item 3.2 on Resource Mobilization. The Agenda Item was introduced by Mr Abdalah Mokssit, Secretary of the IPCC. Germany indicated that the document IPCC-XLIX/INF.5, Rev.1 referred to CHF 30 million being needed until the end of the Sixth Assessment cycle and pointed out that the budgets for 2021 and 2022 were too low when compared to past expenditures during the years when assessment reports were released.” It requested the FiTT to review the budgets for 2021 and 2022 and propose some increases which would make the overall required Sixth Assessment cycle funding in line with the resource mobilization strategy. The IPCC took note of the document.

3.3. Working capital reserve

The Chair of the IPCC opened the Agenda Item 3.3, document IPCC-XLIX/INF.3, on the Working Capital Reserve. The Agenda Item was introduced by Ms Judith Ewa, Programme Officer. Netherlands sought clarification as to where the funds for the working capital reserve would come from. They were informed that funds would come from the existing cash reserves within the IPCC Trust Fund. Germany indicated that it was willing to take note of the document with the understanding that the proposed working capital reserve of CHF 2 million, is approximately equivalent to the budget required under the WMO rules to run the Secretariat for a full year, although this amount is equivalent to 25 % of the IPCC annual budget and is thus higher than the usual working capital reserve in many other UN agencies of about 10 % of the annual budget. Working Group III Co-Chair (Mr Jim Skea), speaking as a member of the Executive Committee (ExCom), expressed concerns about handling fiduciary matters as the ExCom members were scientists and felt there was a nervousness about being requested to take on this role. The Chair explained that one of the items in the Terms of Reference of the ExCom was to address urgent issues related to the IPCC programme of work that require prompt attention by the IPCC between Panel sessions. United Kingdom requested clarification on how the working capital reserve would be replenished. They were informed that the replenishment would come from the existing cash reserves within the Trust Fund. The IPCC took note of the document.

3.4. Financial stability of the IPCC

The Deputy Secretary of the IPCC, Kerstin Stendahl, introduced the proposed terms of reference (ToR) for an external consultant to assess the financial stability of the IPCC (IPCC-XLIX/Doc.6, Rev.1). The United States, Sweden and Switzerland took the floor raising issues such as intended scope of work, its necessity, and appropriate funding sources.

IPCC Vice-Chair Thelma Krug underscored the difference between short-term stability and long-term uncertainty. IPCC Vice-Chair Youba Sokona noted that IPCC scientists are neither fundraisers nor finance mobilizers.

The Panel agreed that the FiTT would discuss the issue further.

3.5. Any other matters

The Chair of the IPCC opened the Agenda Item 3.5, document IPCC-XLIX/INF.2 on Any other matters which was on the Audit of the 2017 financial statements of the Intergovernmental Panel on Climate Change. The Agenda Item was introduced by Ms Judith Ewa, Programme Officer. The IPCC took note of the document.
4. ADOPTION AND ACCEPTANCE OF THE “2019 REFINEMENT TO THE 2006 IPCC GUIDELINES FOR NATIONAL GREENHOUSE GAS INVENTORIES”

By Decision IPCC-XLIX-9, the Panel adopted the Overview Chapter and accepted the underlying Methodology Report entitled “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories”. It did so in accordance with Sections 4.4 and 4.5 of Appendix A to the Principles Governing IPCC Work, the Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports; and in accordance with Principle 10 (b) of the Principles Governing IPCC Work, the text of which was added to the decision.

As a result of the discussion prior to the decision about the 2019 Refinement’s assessment of the differing levels of data availability for certain sub-segments of fugitive emissions from oil, gas and coal exploration which resulted in a dissimilar treatment of these emissions in Volume 2, Chapter 4 (Fugitive Emissions) of the “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories” and referred to in Section 6 of its Overview Chapter, some countries (Algeria, Egypt, Iran, Iraq, Saudi Arabia and Syria) disagreed with the content of Section 6 of the Overview Chapter of the 2019 Refinement.

In accordance with Principle 10 (b) of the Principles Governing IPCC Work their differing views on Section 6 of the Overview Chapter of the 2019 Refinement are recorded in the report of the 49th Session of the IPCC.

Also in accordance with Principle 10 (b) it was agreed that two footnotes are to be included in the underlying Methodology Report, Volume 2, Chapter 4, on oil systems and natural gas systems exploration, reflecting the differing views of these countries on matters of technical nature to the report’s different treatment of fugitive emissions from oil, gas and coal exploration.

On the treatment of fugitive emissions from oil, gas and coal exploration, the authors explained that improved guidance was included in the 2019 Refinements where data were available. For fugitive emissions from oil and gas exploration, a large data set was used to develop emission factors, which included data from wells across a wide range of geological formations and exploration practices from one country. A technically-supported methodology, emission factor, and activity data for fugitive emissions from coal exploration were not available to the authors.

Saudi Arabia requested to record its views as follows:

“The Kingdom of Saudi Arabia is concerned with the unbalanced treatment between the oil and gas sectors and the coal sector in the 2019 Refinement. Considerable updates and new guidance have been added to the guidance on fugitive emissions for oil and gas sectors, while very minimal updates have been made in the guidance on fugitive emissions for the coal sector. At its 44th Session, the Panel approved the outline for the methodology report. Both issues identified under “fugitive emissions from mining processing and transportation of coal” for refinement were not addressed adequately and the added guidance was mostly either weak and general, or non-existent. This in turn dismisses and undermines portions of the coal lifecycle that may result in an underestimation of its emissions. Using such guidance in inventories will unfairly show that oil producing countries that highly depend on this sector have much larger emissions compared to others. For oil and gas, the 2019 Refinement expanded the guidance significantly. Saudi Arabia and several other countries raised many technical concerns regarding the added equations and default emission factors for exploration in oil and gas, as well as concerns regarding the literature used; in many cases it was outdated and the global default emission factors were based on literature limited to a few countries, and in some cases one country only. Saudi Arabia and others therefore requested to relocate the updated oil and gas exploration section to the appendix of the refinement for further work, as was done for coal exploration for similar reasons,
however, this was opposed by some other countries. While the Saudi Arabia appreciates the Coordinating Lead Authors’ efforts in adding general guidance for coal exploration in the main body of the refinement, the proposal did not adequately address the Saudi Arabia’s concerns”.

Delegations expressed their appreciation to the Co-chairs of the Task Force Bureau and thanked the authors and others who made this important achievement possible.

5. REPORT FROM THE IPCC TASK GROUP ON GENDER

The Co-chairs and the rapporteur of the Task Group on Gender (TG Gender) reported on the group’s work.

In the ensuing discussions Netherlands, France, Canada, Belgium, Australia, Switzerland, Korea, Norway, Japan, EU, Bureau member Panmao Zhai, Luxembourg, Bolivia, Bureau member Ramon Pichs-Madruga, China, Ukraine, Zimbabwe, Nicaragua, Bureau member Andreas Fischlin, Ecuador, WGI Co-Chair Valerie Masson Delmotte spoke.

Delegates and Bureau members thanked the Co-chairs, the rapporteur and the group for a well-crafted and excellent report. Many supported the setting up of a Gender Committee for the IPCC and stressed the need for an inclusive nomination process to this end. Many noted that while progress had been made much still remained to be done. Many emphasized the role of reporting on progress on achieving gender balance and other gender-related matters.

Some wanted the work on gender focus more to on gender related issues in the AR6 work – such as for example in the Sixth Assessment Report scoping document. Many asked for clarifications on the role of national focal points in the work on gender. It was stressed that it is essential that attention is paid to gender balance in making nominations. More proactive leadership was called for as well as mechanisms for encouragement and support, to counterbalance the prevailing self-censorship among female researchers.

A contact group was established in the morning of 8 May 2019, co-chaired by Patricia Nying’uro from Kenya and Markku Rummukainen from Sweden. The Co-chairs of the contact group reported back to Plenary on 11 May 2019 at 4 p.m. in the afternoon, noting that the work had been completed and a draft decision had been agreed upon. The Co-chairs thanked the contact group for constructive and insightful discussions.

The Panel approved Decision IPCC-XLIX-5 on Gender Implementation Plan and Gender Policy.

6. PROGRESS REPORTS

6.1. Ad Hoc Task Group on Financial Stability

On Friday, IPCC Vice-Chair and the Ad Hoc Task Group on Financial Stability of the IPCC (ATG-Finance) Co-Chair Youba Sokona reported on the work of the ad hoc Task Group on Financial stability (IPCC-XLIX/Doc. 6, Rev.1). He said that apart from the consultant Terms of Reference (ToR) discussed under the agenda item on the IPCC’s financial stability, no other work had been undertaken.

The Panel discussed the need of hiring an external financial consultant and noted that the proposed ToRs did not fully reflect the discussions at IPCC-48. The issue was forwarded to the FiTT for further discussions.

The Panel took note of the report.
6.2. Task Group on the Organization of the Future Work of the IPCC in light of the Global Stocktake

Mr Eric Brun, Co-Chair of the Task Group on the Organization of the future work of the IPCC in light of the Global Stocktake (TG-FWLGST) introduced document IPCC-XLIX/INF. 6.

Mr Brun reported that the open ended Task Group, which is co-chaired by France and Mexico currently has 57 members. Norway volunteered to the Task Group's rapporteur. The group utilizes the online web forum developed by the Secretariat for their discussions.

The work of the TG-FWLGST is according to the work plan which was presented at the 48th Session of the IPCC. From December 2018, the group started analyzing submissions received from 17 member governments and 3 IPCC Observer Organizations on the viable options for organizing future work of the IPCC. A progress report was presented to the 56th Session of the IPCC Bureau and the members’ views were solicited.

Mr Brun presented a preliminary summary of the six identified options, clustered according to different assessment cycle lengths, and associated reports and products, and implementation of the options during the Seventh Assessment cycle. Each of the three suggested lengths of the assessment cycle (i.e. the status quo, 5-years and 10-years) was associated to two viable packages.

The options were discussed in three physical meetings of the TG-FWLGST. Subsequently, a report was presented to the Panel. Mr Ole-Kristian Kvissel, the Task Group Rapporteur reported that the Task Group meetings were open to all delegates and IPCC Bureau members. The Task Group would focus its work on the Seventh Assessment Report (AR7) to ensure that it aligns with the second Global Stocktake (GST) to be carried out in 2028. He highlighted the challenges associated with lack of knowledge about the actual needs of the GST would be as a limiting factor into how far into the future the Task Group would focus. The group is committed to maintain IPCC’s integrity and robustness of production of IPCC products. Some of the options which were presented in document IPCC-XLIX/INF. 6 were refined and a new option was identified. The group developed criteria to use when considering the pros and cons associated with each of the viable options. The Task Group would continue with its discussions through the electronic forum.

Mr Brun added that during its meetings, the Task Group identified two alternatives that would be presented in its final report to the Panel at the 52nd Session of the IPCC. The first alternative would be to present the seven options. The second would be to launch a review in 2020 which could provide more information for both the IPCC and UNFCCC GST before a decision is taken. Mr Brun summarized the next steps which would be taken by the Task Group in advancing its work.

Belgium suggested that when launching the survey on the pros and cons, the written comments could be supplemented by a numeric scale which would help to have a quick overview complementary to the written comments of the overall opinions of member governments and IPCC Observer Organizations.

The Panel took note of the progress report.


Mr Hans Hans-Otto Pörtner, Working Group II Co-Chair presented the progress report contained in document IPCC-XLIX/INF. 7. He mentioned that the Second Order Draft (SOD) of the Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) and the First Order Draft (FOD) were completed in October 2018 and underwent expert and government review between November 2018 and January 2019. A document on guidelines
was developed to support group expert reviews by early career scientists who reviewed the draft report. Additional guidance by some Working Group Vice Chairs was provided through a series of Webex meetings. A total of 16,137 comments received from 471 expert reviewers, 35 governments and the European Union were received and processed. The review comments were discussed during the 4th Lead Author Meeting (LAM-4) which was held in Kazan, Russian Federation in March 2019. Mr Pörtner thanked the government of the Russian Federation for hosting the LAM, which also included communication and outreach activities, a media briefing for local and international journalists and a media training for authors. A 2-day SROCC Summary for Policymakers (SPM) Drafting Authors Meeting was held in Bremen, Germany in April 2019. Special thanks were expressed to the government of Germany for hosting the meeting. At the time of reporting, the final draft of the SROCC was under development and would be submitted for government distribution and review of the SPM in June 2019 ahead of the approval session in September 2019.

The Panel took note of the progress report.

6.4. Special Report on Climate Change and Land

Mr Jim Skea, Working Group III Co-Chair introduced document IPCC-XLIX/INF. 10. Since the last reporting at the 47th Session of the IPCC, three LAMs were held: the 2nd LAM was held in Christchurch, New Zealand in March 2018, co-hosted by the government of New Zealand and the University of Canterbury. The first order draft was submitted for expert review after the LAM2; the 3rd LAM took place in Dublin in September 2018, hosted by the Irish Government. The second order draft of the Special Report on Climate Change and Land (SRCCL) and the first order draft of the SPM were submitted for government and expert review between November 2018 and January 2019; and the 4th LAM took place in Cali, Colombia in February 2019, hosted by the International Centre for Tropical Agriculture (CIAT). A meeting for SPM drafting authors was hosted by the World Meteorological Organization in Geneva, Switzerland, in March back-to-back with the 56th Session of the IPCC Bureau. Over 50 authors attended, those unable to attend were able to connect remotely. The final government distribution of the chapters, the SPM and the Technical Summary was done in April 2019. The approval plenary will be held in Geneva, Switzerland in August 2019.

The Panel took note of the progress report.

6.5. Working Group I contribution to the Sixth Assessment Report

Mr Panmao Zhai, Working Group I Co-Chair presented the progress report contained in document IPCC-XLIX/INF. 12. He reported that the FOD of the Working Group I AR6 was undergoing expert review from April 2019. More than 1,500 experts registered to review the draft report. Two LAMs were held: LAM1 was held from 25 to 29 June 2018 in Guangzhou, China, at the invitation of the Chinese government and brought together nearly 250 participants; and LAM2 was held in January 2019 in Vancouver, Canada at the invitation of the Canadian government. At the LAM2, authors built on the outcomes of the internal review, identified key messages and new findings for chapter Executive Summaries, developed the report storyline to ensure consistency across chapters and across other AR6 reports. Coordination mechanisms across chapters were established to address overlaps, gaps, inconsistencies and coordinating the use of common methodologies, datasets, indices and diagnostics.

Ms Valérie Masson-Delmotte reported that to foster coordination across Working Groups, two Working Group II participants were invited to the LAM2. Two Coordinating Lead Authors (CLAs) of the Working Group I Atlas participated in the LAM1 of Working Group II. Cross Working Group coordination mechanisms were being implemented on cross-cutting topics including scenarios, risk, regional information and storylines. A report from the Expert Meeting on Assessing Climate Information for Regions with the outcomes of the discussions was
published with recommendations and the outline of the Working Group I Atlas. Training on diversity and inclusion was conducted by external experts at the LAM2 to support the IPCC Code of Conduct and the development of an inclusive work environment. The Working Group I TSU was developing a Communication Strategy, which would be regionalized based on knowledge and experience of authors and Bureau members on regional outreaches, user and stakeholder interactions, regional context narratives and means of communicating Working Group I science. To advance the work on climate education and climate literacy, Working Group I TSU and Bureau members continue to support the development of the summary for teachers which was developed from the Special Report on Global Warming of 1.5°C (SR15) report. To ensure transparency, the development and curation of scripts, open-access community software and preprocessed data underlying figures produced by Working Group I AR6 would be published on the public repository hosted by the IPCC Data Distribution Centre (DDC) after the approval of the report. Working Group I will work with the Task Group on Data Support for Climate Change Assessments (TG-Data) on data access, distribution of quality controlled information and software aspects of climate data. TG-Data is expected to provide guidance on data and software issues for the long-term curation, transparency, traceability and stability of the data which underlies the assessment.

Canada commended the Working Group I Co-Chairs, the Bureau and the TSU for their proactive efforts to integrate gender awareness, diversity and inclusive practices at the LAM2 in Vancouver. They committed to provide targeted financial support to allow them to undertake further activities of this kind at upcoming LAMs.

The Panel took note of the progress report.

6.6. Working Group II contribution to the Sixth Assessment Report

Ms Debra Roberts, Working Group II Co-Chair introduced document IPCC-XLIX/INF. 8. She reported that the Working Group II LAM1 was held in Durban, South Africa in January 2019. Special thanks were expressed to the Government of South Africa for the invitation to host the meeting and for providing support. At the LAM1, new authors were introduced to IPCC Procedures and processes, and interacted with Bureau members in informal Question and Answer (Q&A) sessions. The foundation for cross Working Group linkages was built through hosting two CLAs from the Working Group I Atlas and a Working Group III Vice-chair at the LAM1. In preparation of LAM1, an author portal was established to provide a user-friendly platform for authors to obtain background information and guidance notes and provide access to other resources and tools, as well as a platform to support the submission of comments and questions during LAMs. A Document Management System was developed to enable authors to share documents within and between teams and development of drafts within and across chapter teams, including a mechanism for the upload of non-published, non-peer reviewed, and non-English literature. An Author Handbook was produced in a modular format and allows the recording of introductory and guidance materials and support tools required by authors. The Author Handbook could be updated throughout the AR6. Ideas for Frequently Asked Questions (FAQs) were solicited through surveys carried out in March 2019. The internal draft of the Working Group II AR6 was received by the TSU on 26 April 2019 with 18 Chapters and 7 Cross-Chapter Papers, and was undergoing internal review by selected experts at the time of reporting. The LAM2 would be held in Kathmandu, Nepal from 14 to 19 July 2019 at the kind invitation from the Government of Nepal in collaboration with the International Centre for Integrated Mountain Development.

Nepal reiterated their invitation to host the Working Group II LAM2. Belgium supported by Nicaragua thanked the Working Group and TFI Co-chairs for the proactive efforts made to facilitate the work of the authors, reviewers and Review Editors. The IPCC Secretariat was requested to archive all the relevant documents and tools for the benefit of TSUs who will be formed over the next IPCC assessment cycle.

The Panel took note of the progress report.
6.7. Working Group III contribution to the Sixth Assessment Report

Mr Jim Skea, Working Group III Co-Chair presented the progress report contained in document IPCC-XLIX/INF. 11. He reported that Working Group III LAM1, which took place in Edinburgh, Scotland in April 2019 was attended by over 180 authors from more than 65 countries. The meeting was also attended by the Chair of the IPCC, WG I and II Vice Chairs Jan Fuglestvedt and Taha Zatari, and IPCC Vice Chairs Thelma Krug and Youba Sokona. In preparation of the LAM1, Working Group III Co-chair held conference calls with the CLAs of each of the 17 chapters in the middle of 2018. There was a series of webinars for each of the 6 clusters developed from the 17 chapters, which addressed common methodological and storyline issues across the different chapters. There were webinars aimed at introducing new authors to the IPCC assessment process, systematic approaches to the assessment, guidance for authors on how to approach the literature, referencing systems and document management. The LAM1 included an outreach programme which included both broadcast and print media, a number of meetings at the Scottish Parliament. The First Minister Nicola Sturgeon attended the LAM1 opening session. There are weekly Webex meetings between the Working Group III TSUs based in London, United Kingdom and Ahmadabad, India. The Working Group III LAM2 would be held in India, 30 September – 4 October 2019, in New Delhi, with the support of the Government of India.

The United Kingdom commended the Working Group Co-chairs for their efforts to ensure that the authors are well supported, to communicate the work of the IPCC, to integrate across Working Groups and disciplines. A question was posed on the foresight of the Working Groups towards the preparation of the AR6 Synthesis Report (SYR), the timelines and the establishment of the SYR TSU. The Chair of the IPCC deferred the discussion of the AR6 SYR to a later time during the meeting.

The Panel took note of the progress report.

6.8. Task Force on National Greenhouse Gas Inventories

Mr Kiyoto Tanabe, TFI Co-Chair, introduced document IPCC-XLIX/INF. 4. He highlighted that since 2016, the TFI has conducted the development of the Methodology Report titled the “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories” (2019 Refinement). The Authors started the elaboration of the Final Draft at the fourth Lead Author Meeting (LAM4) which took place in Rome, Italy, in October 2018. The LAM4 was followed by the 30th meeting of Task Force Bureau (TFB). Special thanks were expressed to the Food and Agriculture Organization of the United Nations (FAO) and the government of Italy for hosting the meetings. Upon the conclusion of the Government Review of the Final Draft of 2019 Refinement, the Authors considered all comments from the review and incorporated them in the updated Final Draft which was submitted to the Panel for adoption/acceptance at the 49th Session.

The TFI continues its work of the IPCC Inventory Software. The development of Tier 2 worksheets for the Agriculture, Forestry and Other Land Use (AFOLU) Sector was completed for the livestock categories in 2018. International independent experts were hired to perform rigorous testing of the implementation of Tier 2 for the livestock categories in the software, and an expert meeting to further test the software was held in Hayama, Japan on 31 July - 2 August 2018. A version of the software with Tier 2 livestock categories was planned to be released in June 2019. The work for the Land Use, Land-Use Change and Forestry (LULUCF) part of the AFOLU sector would commence thereafter, and was expected to be completed in late 2019. Tier 2 worksheets for other sectors are already included in the latest version of the IPCC Inventory Software which can be downloaded from the TFI website.
The TFI has also continued its work on the Emission Factor Database (EFDB). It organized the 16th Expert Meeting on Data (Land Use, Land-Use Change and Forestry (LULUCF) and Waste sectors) for the EFDB and 16th Meeting of Editorial Board for the EFDB, which both took place in November 2018 in Buenos Aires, Argentina.

Mr Tanabe further reported that at the 24th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Katowice, Poland, on 3-14 December 2018, the TFI held three side events, two of them at the WMO/IPCC Pavilion. The TFI has continued to collaborate with the UNFCCC in order to help inventory compilers better understand and use the TFI products. Expert support was given at a regional workshop for Africa in March 2019.

The Panel was informed that a member of the TFB from Benin would step down in June 2019 when he starts working for the UNFCCC Secretariat. The IPCC Secretariat was requested to provide guidance on the procedure to be followed for the replacement.

The Secretary of the IPCC mentioned that the replacement of the TFB member who stepped down would be undertaken according to Rule 12 of Appendix C of the Principles Governing IPCC Work. In this particular case, WMO Region I (Africa) would be expected to nominate a candidate for the replacement.

The Panel took note of the progress report.

6.9. Communications and outreach activities

Mr Jonathan Lynn, IPCC Senior Communications Manager, introduced the document IPCC-XLIX/INF.9. He highlighted the enormous media impact of the Special Report on *Global Warming of 1.5ºC*, which had transformed the discussion of climate change around the world. This showed the benefits of bringing communications expertise into the working groups and technical support units to help prepare the report as well as a series of other innovations.

Mr Lynn said the IPCC was working with a large number of authors and Bureau members to help them communicate the report. These media training sessions have been highly appreciated by participants. They also helped the authors develop clear and powerful messaging.

For each of its reports, the IPCC develops a communications strategy, and a four-phase strategy was used here for communications in advance of approval, the release of the report, the period up to COP24 and the COP itself, and then the post-COP period.

An important innovation was the pavilion mounted jointly with the WMO at COP24, which allowed the IPCC to showcase *Global Warming of 1.5ºC* in detail as well as other work. About 30 events presenting the work of the IPCC took place in the pavilion. Mr Lynn expressed thanks to the UNFCCC, WMO and UN Foundation for their support on this. It is hoped to have another pavilion at COP25 if available funds permit.

He mentioned the other outreach activities around this report, and the co-sponsored workshop on the status of climate science and technology in Asia, held in November in Kuala Lumpur, Malaysia. He acknowledged the generous financial contribution of the Norwegian Environmental Agency and the financial and in-kind support of the UN Foundation.

Mr Lynn presented future plans for communications, including outreach, videos and web pages for the two special reports due in 2019, which would involve an increase in spending. He also presented the aims of the outreach programme, where such activities had taken place, the criteria for selecting events, travel support of participants in regional events drawing on
dedicated outreach funding, and the impacts of such activities, and he invited delegates to send requests to host outreach events in their countries.

Switzerland, Working Group I Vice-Chair Edvin Aldrian, France, Saudi Arabia, Sweden, Belgium, Norway, Republic of Korea, Canada and Working Group I Co-Chair Valérie Masson-Delmotte took the floor. Delegates welcomed the increased ambition of communications and urged the Secretariat to maintain and expand the pace of outreach, reaching out to wider audiences including young people.

One delegation called for the IPCC website to give prominence to links to other assessments relevant to climate change from the UN system. Another urged greater use of video. One delegation underlined the importance of timely translations of the Summary for Policymakers of reports. One delegation underlined the importance of ensuring that communications messages were complete and reflected approved and accepted texts. Delegations raised the possibility of working with National Focal Points to communicate IPCC findings through electronic means such as webinars, and stressed the need to communicate Global Warming of 1.5ºC in developing countries. One delegation asked about communications plans for the two forthcoming special reports, and another about plans to participate in the UN Secretary-General’s climate summit. One delegation highlighted the potential of social media to communicate IPCC findings.

In responding to the comments made, Mr Lynn said the Secretariat would improve the links on the website to climate-related matter from other UN bodies, and intended together with the Technical Support Units to develop further the use of video as a communication tool. It also hoped to build on the existing good experience of delivering communications materials remotely. He said the IPCC was exploring options to contribute to the UN Secretary-General’s summit.

The IPCC took note of the report on communication and outreach activities.

7. ADMISSION OF OBSERVER ORGANIZATIONS

The Legal Officer of the IPCC Secretariat, Sophie Schlingemann, introduced document IPCC-XLIX/Doc. 5 related to this topic and noted that since the 47th Session of the IPCC (Paris, France, 13-16 March 2018) eight applications from organizations for IPCC observer status had been submitted in accordance with the IPCC Policy and Process for Admitting Observer Organizations. After screening by the Secretariat, the IPCC Bureau positively reviewed the applications at its 56th Session (Geneva, 18-19 March 2019). Subsequently the Panel admitted by consensus the following eight organizations as IPCC observers:

(1) European Space Agency (ESA), (2) United Nations Foundation (UNF), (3) Juventum (Germany), (4) Group on Earth Observations (GEO), (5) Greenplanet (India & Canada), (6) Green Climate Fund (GCF), (7) Scientific Committee on Oceanic Research (SCOR), and (8) Instituto Bem Ambiental (IBAM).

Furthermore the Panel was informed that the Office of the United Nations High Commissioner for Human Rights (OHCHR) requested IPCC observer status in December 2018. In accordance with the IPCC Observer Policy, OHCHR was added to the list of UN Bodies and Organizations as Participating Organizations.

8. IPCC SCHOLARSHIP PROGRAMME

Ms Ko Barrett, IPCC Vice-Chair and Chair of the IPCC Scholarship Programme Science Board introduced document IPCC-XLIX/Doc. 9, Rev.1. She reported that the call for the 5th round of awards was launched in February 2019. A total of 312 applications were received. Almost two-thirds of the applications were from Africa, about 21% from Asia and 17% from
other regions. Both the Prince Albert II of Monaco Foundation and the Cuomo Foundation, who are funding partners for the Scholarship Programme have confirmed their continued support for the 5th round of awards.

The Science Board is proceeding with the new track to support Chapter Scientists from developing countries according to a decision at the 47th Session of the IPCC. The budget implications for supporting the involvement of Chapter Scientists presented was notional and the actual costs might be lower. The balance in the Scholarship Programme Trust Fund by 31 March 2019 was CHF 948,458.00. It was suggested that the Science Board could fundraise for the support of Chapter Scientists. Ms Barrett suggested that a recommendation could be made to the Board of Trustees to provide travel support for developing country Chapter Scientists to attend 3 meetings at a cost of about CHF 5,000 per meeting.

The Panel was invited to consider the financial implications of supporting Chapter Scientists with a view to provide some guidance to the Board of Trustees, who are new in their function. The previous Board of Trustees out of concern about the funds in the Trust Fund recommended that the amount could not be drawn down by more than 20% of the balance in the Scholarship Programme Trust Fund in any given round to provide a basis for sustained support over time.

Member countries who made interventions during the ensuing discussion were Algeria, Angola, Bahamas, Belgium, Bolivia, Botswana, Burkina Faso, Chad, China, Comoros, France, Germany, Ghana, India, Jamaica, Kenya, Nigeria, Republic of Tanzania, Saint Kitts and Navis, Saudi Arabia, South Africa, Togo, Ukraine, United Kingdom and Zimbabwe.

There were calls to mobilize additional funds to support the involvement of the early career scientists noting that using up to one-third of the Fund would not be sustainable in the long term.

Some delegates recalled the discussion at the 47th Session of the IPCC when concerns were raised about the burden which supporting Chapter Scientists would place on the Scholarship Trust Fund. There were concerns that there was no feedback on efforts and progress made in fundraising and strengthening the Scholarship Programme, including exploring the possibility if philanthropic organizations and climate fund institutions, such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF), would be willing to contribute to the Scholarship Programme if they were requested. Some governments emphasized the need to continue supporting PhD and post-doctoral research to strengthen the knowledge available from and about developing countries to be assessed by the IPCC. The Chair of the IPCC was requested to play a leading role in resource mobilization to strengthen and sustain the Programme.

Some governments supported the proposal to fund developing country Chapter Scientists, including their travel expenses, from the Scholarship Programme Trust Fund. This was perceived as means to introduce young scientists who would be potential authors of IPCC reports into the assessment process. There were calls to mobilize additional funds earmarked to support the involvement of the early career scientists noting that using up to one-third of the Fund would not be sustainable in the long term.

IPCC Bureau members who made interventions include Valérie Masson-Delmotte, Diana Úrge-Vorsatz and Carolina Vera. They supported the proposal to provide funding for Chapter Scientists from developing countries including to attend Lead Author Meetings (LAMs) highlighting the important role they play in supporting the work of authors of IPCC reports. Despite their important contributions there was no procedure for Chapter Scientists' support.
Ms Barrett noted the need to convey the Panel’s recommendation to the Board of Trustees to prioritize resource mobilization in their work, which is part of their ToRs, in order to make the Scholarship Programme more robust. She also noted the preference from many governments to prioritize the funding for PhD and post-doctoral scholarships. She noted, that supporting the involvement of Chapter Scientists in the IPCC process was also supported by some delegates with a caveat not to decimate the Scholarship Trust Fund. Ms Barrett concluded was therefore a clear need to thread a very careful balance between continuing to provide post-graduate scholarships and pursuing the new idea of supporting the engagement of developing country Chapter Scientists. Based on the deliberations of the Panel, she presented a draft decision including guidance to the Board of Trustees on the use of the Scholarship Fund.

Member countries who commented on the draft decision were Algeria, Bahamas, Belgium, Benin, Bolivia, Botswana, Chad, Congo, El Salvador, Ghana, India, Iraq, Jamaica, Kenya, Nigeria, Republic of Tanzania, Saint Kitts and Nevis, Saudi Arabia, South Africa, Togo and Zimbabwe.

There were concerns that the decision text did not fully reflect the discussions in the Panel. Some governments objected to supporting post-doctoral fellowships and requested to focus on PhD students. Several governments emphasized that supporting Chapter Scientists could be considered only if additional funds are mobilized to support their involvement. It was proposed that following previous requests by governments, the decision text should reflect that the Chair of the IPCC because of his more influential position could assume a leading role of the Science Board, consistent with the Scholarship Programme Trust Deed. Some governments suggested that Chapter Scientists would enable early career scientists to become Lead Authors and therefore supported that they should be funded.

IPCC Bureau members who made comments were Edvin Aldrian, Fatima Driouech, Valérie Masson-Delmotte, Joy Pereria, Noureddine Yassaa and Carolina Vera.

The funding of earlier career scientists to participate as Chapter Scientists in the AR6 was supported by Bureau members while supporting the request to mobilize additional resources. A suggestion was made to investigate the success which has been made by funding post-graduate scholarships as well as an inquiry from recent Chapter Scientists in IPCC reports. One Bureau member supported the request by most developing country delegates to emphasize the funding for post-graduate students. Another Bureau member stressed the need to invite academic IPCC Observer Organizations to partner with the IPCC Scholarship Programme and wondered if this idea has been pursued.

Ms Barrett in her summary acknowledged the strong feelings with which different Panel members view the Scholarship Programme. She noted the difficulty of reconciling positions that were in conflict with each other. On one hand some member countries objected to the use of the Scholarship Fund to support Chapter Scientists which on the other hand some Panel members felt it is important. She informed the Panel that the expectation was to provide guidance to the Board of Trustees who would make the decision on how to use the Scholarship Fund.

The Chair of the IPCC assured his support to the Board of Trustees in its fund raising activities in order to strengthen and sustain the Scholarship Programme. He noted that the concerns raised by several Member countries including Algeria, Ghana, India, Kenya, Nigeria, Republic of Tanzania, Togo and Zimbabwe would be recorded in the report of the 49th Session of the IPCC.

Subsequently the Decision IPCC-XLIX-4 was adopted by the Panel.
9. TASK GROUP ON DATA SUPPORT FOR CLIMATE CHANGE ASSESSMENTS

Mr Abdalah Mokssit, Secretary of the IPCC introduced document [IPCC-XLIX/Doc. 7, Corr.1]. He informed the Panel that in response to the invitation which was sent to governments and IPCC Observer Organizations to nominate TG-Data members, a total of 81 nominations were received by the IPCC Secretariat. He highlighted the statistics which, **inter alia**, demonstrated the geographical distribution and gender of the nominated experts.

The IPCC Bureau at its 56th Session (Geneva, Switzerland, 18 – 19 March 2019) selected 14 experts who are listed in Table 1. Mr Mokssit informed the Panel that some IPCC Bureau members identified gaps in expertise they deem necessary for the TG-Data to work effectively. To address these concerns, a proposal was submitted to amend Article 3.2 of the TG-Data TORs which were approved by the Panel at the 47th Session of the IPCC (Annex 1 of Decision [IPCC-XLVI-9]) to allow the IPCC Bureau to also nominate potential members of the TG-Data and Article 3.3 to allow for a maximum of about 20 TG-Data members.

Mr Mokssit reported that one of the selected TG-Data members in Table 1 had already stepped down at the time of reporting. Working Group III Co-chair informed the Panel that a possible replacement who was nominated by the same country who is also female had been identified. However, he raised a concern that the TORs were silent on the procedure to be followed to replace TG-Data members who step down before the end of their term.

The Panel was invited to take note of the selected TG-Data members and decide on the request to amend the TG-Data TORs.

Member countries who made interventions included Bolivia, Botswana, Canada, China, Ecuador, El Salvador, France, Ghana, Japan, Kenya, Madagascar, Netherlands, Republic of Tanzania, South Africa, Switzerland, Togo, United Kingdom and Zimbabwe.

Some Member countries supported the proposed amendments of the TORs. Others objected to the proposal to have Bureau members nominate and select TG-Data members citing a possible conflict of interest and a scenario whereby the Bureau would act as a jury and a judge. It was suggested that TG-Data Co-chairs could be advised to invite members of the scientific community to contribute to the work of the Task Group and possibly submit a request for specific expertise to the Panel in future if the needs are identified.

IPCC Bureau Members who made comments were Edvin Aldrian, Fatima Driouech, Andreas Fischlin, Valérie Masson-Delmotte, Hans-Otto Pörtner and Youba Sokona.

Bureau members supported the amendment of the TORs. Working Group II Co-chair mentioned that during the nomination of authors, the first consideration is given to experts nominated by governments and IPCC Observer Organizations. If there are gaps to be filled in relation to scientific expertise, Bureau members can nominate experts to fill the gaps. He mentioned a Working Group II wish list comprising of an expert on agriculture data from Australia, an expert on cities, urban heat islands and impacts from Singapore, an expert on water challenges for cities from Chile, an expert on diverse impact modelling studies from Germany, an expert on terrestrial biodiversity and risk assessment from United Kingdom, an expert on ocean and polar systems and fisheries impacts from United States of America and an expert on vegetation from South Africa. Working Group I Co-chair informed the Panel that the amendment of the TORs was not meant to select Bureau members to be members of the TG-Data.

The Chair of the IPCC noted that there were no major objections to the amendment of Article 3.3 of the TG-Data TORs to increase the membership of the Task Group to a maximum of 20 members, the Panel was requested to agree on the amendment. This request was accepted by the Panel.
A Contact Group co-chaired by Japan and the Republic of Tanzania was established to deliberate on the amendment of Article 3.2. After the meeting, the Contact Group Co-chairs reported to the Panel that delegates accepted to amend Article 3.2. Subsequently, Decision IPCC-XLIX-6 was adopted by the Panel.

Table 1: List of TG-Data Members

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Citizenship</th>
<th>Gender</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>David HUARD</td>
<td>Canada</td>
<td>Male</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>2</td>
<td>Sebastian VICUNA</td>
<td>Chile</td>
<td>Male</td>
<td>Co-Chair</td>
</tr>
<tr>
<td>3</td>
<td>Kornelis BLOK</td>
<td>Netherlands</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>4</td>
<td>Steven CRIMP</td>
<td>Australia</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>5</td>
<td>Sha FU</td>
<td>China</td>
<td>Female</td>
<td>Member</td>
</tr>
<tr>
<td>6</td>
<td>Wawan GUNAWAN</td>
<td>Indonesia</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>7</td>
<td>José Manuel GUTIÉRREZ</td>
<td>Spain</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>8</td>
<td>Michio KAWAMIYA</td>
<td>Japan</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>9</td>
<td>Nana Ama Browne KLUTSE</td>
<td>Ghana</td>
<td>Female</td>
<td>Member</td>
</tr>
<tr>
<td>10</td>
<td>Volker KREY</td>
<td>Germany</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>11</td>
<td>Silvina SOLMAN</td>
<td>Argentina</td>
<td>Female</td>
<td>Member</td>
</tr>
<tr>
<td>12</td>
<td>Gerard VAN DER SCHRIER</td>
<td>Netherlands</td>
<td>Male</td>
<td>Member</td>
</tr>
<tr>
<td>13</td>
<td>Michele WARBURTON-TOUCHER</td>
<td>South Africa</td>
<td>Female</td>
<td>Member</td>
</tr>
<tr>
<td>14</td>
<td>Rachel WARREN</td>
<td>United Kingdom</td>
<td>Female</td>
<td>Member</td>
</tr>
</tbody>
</table>

10. REPORT OF THE IPCC CONFLICT OF INTEREST COMMITTEE

The Chair of the IPCC Conflict of Interest (COI) Committee, Youba Sokona, gave a brief verbal report on the activities of the Committee. He informed the Panel that the 16th COI Committee meeting was held on 19 March 2019 in the margins of the 56th Session of the IPCC Bureau. At that meeting the COI Committee reviewed the updated information in the COI forms submitted by the IPCC Bureau and Task Force Bureau (TFB) members, which they are required to provide annually in accordance with the IPCC COI Policy. The Chair was pleased to inform the Panel that all updates were found in order and that no conflict of interest was found.

Furthermore the Chair recalled that during the elections of the AR6 Bureau (Dubrovnik, 5-8 October 2015), the COI Committee had drawn the attention of the Panel that a conflict of interest may arise if an IPCC Bureau or TFB member also serves as the national Focal Point, because IPCC Bureau and TFB members play a role in the Working Groups or the Task Force on National Greenhouse Gas Inventories, which prepare assessments and methodology reports, and the national Focal Points serve as the link between the IPCC and the governments, which commission and review IPCC reports and other products.

The Chair also informed the Panel that the COI Committee had suggested to the Secretariat to insert paragraph 17 of the IPCC COI Policy in future letters to national Focal Points inviting them for IPCC Sessions where a report will be approved, adopted or accepted. This
paragraph indicates that in order to prevent situations in which a conflict of interest may arise, individuals directly involved in or leading the preparation of IPCC reports should avoid being in a position to approve, adopt, or accept on behalf of any government the text in which they were directly involved.

The Panel took note of the report and the representative of Germany thanked the COI Committee for its important work.

11. SHORT-LIVED CLIMATE FORCERS

Mr Eduardo Calvo, TFI Co-chair introduced the options paper document [IPCC-XLIX/Doc. 8]. He informed the Panel that the expert meeting on Short-Lived Climate Forcers (SLCFs) which was held in May 2018 recommended that the future work of the TFI should include filling identified gaps in the quantification of emissions of SLCFs, and developing and disseminating internationally agreed and globally applicable methodological guidance based on existing methodologies. To achieve this overall objective, two types of products were plausible: 1) a Methodology Report similar to the 2006 Guidelines for National Greenhouse Gas Inventories; and 2) Supporting Material. The viable options, and approaches, activities, resource requirements and associated timelines to achieve them were elaborated.

The Panel was invited to consider the viable options and provide guidance on the way forward. The options were: Option A) Stepwise technical assessments in AR6 cycle that will be followed by further methodological development in the seventh assessment cycle; and Option B) Early start of production of comprehensive guidelines with a view to its completion in sixth assessment cycle.

Member countries which made comments were Algeria, Argentina, Belgium, Canada, China, Denmark, Ecuador, France, Germany, Ghana, India, Indonesia, Japan, Luxembourg, Mexico, New Zealand, Nicaragua, Netherlands, Norway, Paraguay, Republic of Korea, Saudi Arabia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States of America.

Most Member countries supported Option A, which they believed was most feasible at the moment and would provide some technical work which countries could draw from over the next few years, while not placing an additional huge workload and financial burden on the IPCC during the sixth assessment cycle. The need for a comprehensive Methodology Report would be assessed during the seventh assessment cycle. Other governments preferred Option B, suggesting that the work of preparing a Methodology Report could be started almost immediately and possibly be completed during the Seventh Assessment Cycle.

Delegates questioned the value of Supporting Material, the quality of the Methodology Report which would be prepared within a short period of time, the scientific basis of the options which would be pursued before the completion of the Sixth Assessment Report (AR6), particularly Chapter 6 in Working Group I AR6. There were questions about the possibility of scoping the Methodology Report for SLCFs in sixth assessment cycle and start the preparation of the report during the seventh assessment cycle.

IPCC Bureau members who made interventions were Ko Barrett and Valérie Masson-Delmotte. The Panel was informed that the Working Group I AR6, Chapter 6 assessment of knowledge related to emissions, atmospheric processes, concentrations, radiative forcing, scenarios, impact of climate change on air quality, SLCFs in scenarios would be available around April 2021. An option with expert meetings starting as soon as possible and continuing when the Working Group I assessment is completed could be preferable. Concerns were raised regarding the burden additional work would place on the experts who would prepare the Methodology Report as well as the reviewers.

IPCC Observer Organizations who made comments were UN Environment. They supported Option B arguing that while there is guidance on emissions of SLCFs such as the EMEP
guidance, but these are only relevant for industrialized countries, particularly the United Nations Economic Commission for Europe (UNECE) region. There is a need for guidelines of emissions inventory for SLCF across the globe.

TFI Co-Chair Mr Kiyoto Tanabe explained that the Supporting Material would involve products produced by expert consideration and discussion which are not approved or adopted by the Panel. The TFI has been producing a lot of Supporting Material which are used by inventory compilers. He mentioned that while the precedence was set during the preparation of the Special Report on Renewable Energy whose work started in the Fourth Assessment Report (AR4) and was completed during the Fifth Assessment Report (AR5), the discontinuity of the TSUs and other relevant structures in the middle of the work poses significant challenges. He suggested that a decision on the preparation of the Methodology Report could be taken during the AR6 but the actual work would start during the AR7. He informed the Panel that the Task Force Bureau concluded that Option B would be very challenging and difficult.

A Contact Group co-chaired by Canada and Ghana was established to deliberate on the viable options, the associated resource implications and possible sources of funding and timelines. After their meetings, the Contact Group Co-chairs presented the report to the Panel highlighting that there was consensus that the work could start almost immediately. An option which was a hybrid of Option A and Option B was presented to the Panel. This new option was accepted and subsequently, Decision IPCC-XLIX-7 was adopted by the Panel.

12. MATTERS RELATED TO UNFCCC AND OTHER INTERNATIONAL BODIES

Mr Florin Vladu from the UNFCCC Secretariat reported on the wealth of past and future collaboration between the UNFCCC and the IPCC. He noted that, inter alia: the outcome of work for the first GST may inform the planning of future IPCC work; and that the GST modalities could be revised after each GST, which may also inform AR7 cycle planning. He also said the Subsidiary Body for Scientific and Technological Advice (SBSTA)-IPCC Joint Working Group had proposed ideas to facilitate further interaction and coordination between the IPCC and UNFCCC.

The Panel took note of the report.

13. ANY OTHER BUSINESS

The IPCC Deputy Secretary provided an update on collaboration between the IPCC and IPBES, noting an invitation by IPBES to collaborate on a joint technical paper. She explained that given that the IPCC is currently facing its most busy cycle ever, preparing a joint technical paper would be difficult.

Working Group II Co-Chair Hans-Otto Pörtner also highlighted possible future collaboration with the Convention on Biological Diversity, noting that biodiversity-related issues had been reflected in the SR15 and will be included in SRCCCL and SROCC. France asked that information be presented at IPCC-50 on correspondence between IPBES and the IPCC. Norway suggested collaboration could also take the form of expert meetings and side events.

The Panel took note of the information.

14. PLACE AND DATE OF THE 50TH SESSION OF THE IPCC

The Secretary informed the Plenary that the 50th Session of the IPCC would be held in Geneva, Switzerland from 2 to 6 August 2019.
15. CLOSING OF THE SESSION

The Chair of the IPCC thanked the Government of Japan for hosting a successful 49th Session of the IPCC. He thanked government representatives of member countries, Bureau members, the Secretariat and the interpreters for a successful meeting and gavelled the meeting to a close at 11.15 p.m. on Sunday 12 May 2018.
Decision IPCC-XLIX-1. Adoption of the provisional agenda

Documents: IPCC-XLIX/Doc.1, Rev.1 and IPCC-XLIX/Doc.1, Rev.1, Add.1, Rev.1

The Intergovernmental Panel on Climate Change at its 49th Session adopts the provisional agenda as contained in document IPCC-XLIX/Doc.1, Rev.1.

Decision IPCC-XLIX-2. Approval of the draft report of the 48th Session of the IPCC

Document: IPCC-XLIX/Doc.4, Rev.1

The Intergovernmental Panel on Climate Change at its 49th Session approves the report of the 48th Session of the IPCC.

Decision IPCC-XLIX-3. Admission of Observer Organizations

Document: IPCC-XLIX/Doc. 5

The Intergovernmental Panel on Climate Change at its 49th Session decides to grant the following organizations IPCC observer status, in accordance with the IPCC Policy and Process for Admitting Observer Organizations:

1. European Space Agency (ESA)
2. United Nations Foundation (UNF)
3. Juentum (Germany)
4. Group on Earth Observations (GEO)
5. Greenplanet (India & Canada)
6. Green Climate Fund (GCF)
7. Scientific Committee on Oceanic Research (SCOR)
8. Instituto Bem Ambiental (IBAM)
Decision IPCC-XLIX-4. IPCC Scholarship Programme

Document: IPCC-XLIX/Doc. 9, Rev.1

The Intergovernmental Panel on Climate Change at its 49th Session expresses its gratitude to the Prince Albert II of Monaco Foundation and the Cuomo Foundation for their continued support of the IPCC Scholarship Programme through the current 5th round of awards. It also expresses its gratitude to the many experts, authors and review editors who are volunteering their time to review the current round of applications for scholarship.

In providing guidance to the Board of Trustees on the use of the Scholarship Fund, the Panel stresses:

1. The need to continue to prioritize the funding of post-graduate scholarships for developing country scientists, especially from least developed countries, in line with the general aim of the Nobel Peace Prize Fund as agreed by the IPCC.

2. The benefits of supporting Chapter Scientists from developing countries to participate in the work of the IPCC, but to do so in ways that do not undermine the ability of the Scholarship Fund to continue to support post-graduate activities.

3. The need to mobilize additional resources for Scholarship Programme activities in order to expand the ability of developing country scientists to contribute in robust ways to advancing climate science and participating in the work of the IPCC.
Decision IPCC-XLIX-5. Report from the IPCC Task Group on Gender

Document: IPCC-XLIX/Doc. 10, Rev.1

The Intergovernmental Panel on Climate Change at its 49th Session decides to:

1. Welcome the report of the IPCC Task Group on Gender and Gender-related issues within the IPCC and note the recommendations of the group as consideration for future work.

2. Express its gratitude for the work of the members, the co-chairs and the rapporteur of the IPCC Task Group on Gender as well as for the support of the IPCC secretariat.

3. Establish a Task Group on Gender Policy and Gender Implementation Plan (TG-Gender) with the aim of developing a draft Gender Policy and a Gender Implementation plan to improve gender balance and address gender-related issues within the IPCC, for consideration by the Panel at its 52nd Session.

4. Adopt the terms of reference of the Task Group on Gender Policy and Gender Implementation Plan as contained in Annex 1 to this document.

Annex I

1. The Task Group is open to IPCC members, Bureau members and Technical Support Unit staff and will be chaired by Ko Barrett, IPCC Vice-Chair.

2. The work of the Task Group is supported by the Secretariat.

3. The Task Group can call upon external experts, as appropriate.

4. The purpose of the Task Group is to develop a draft IPCC Gender Policy and Gender Implementation Plan considering the Report of the IPCC Task Group on Gender and Gender-related issues. The implementation plan will identify specific actions, tasks, roles and responsibilities, as well as modalities for monitoring, reporting progress on the execution, review, and possible future updates of the implementation plan, including budgetary implications.

5. The Task Group’s mode of working will be through various electronic means and face to face meetings during IPCC plenaries. Teleconferencing arrangements will be provided from the IPCC Secretariat.

6. The Task Group will present the draft Gender Policy and Gender Implementation Plan for consideration by the 52nd Session of the IPCC.
The Intergovernmental Panel on Climate Change at its 49th Session decides to:

1. Note the 14 selected members of the Task Group on Data and Scenario Support for Impact and Climate Analysis (TG-Data).

2. Amend Article 3.2 of the TG-Data Terms of Reference (TORs) to read “3.2 Members will be selected from nominations of experts solicited by the IPCC Secretariat from governments and observer organizations. IPCC Bureau Members can also nominate additional experts as appropriate.”

3. Amend Article 3.3 of the TG-Data TORs to read “3.3 TG-Data will be composed of approximately 12 members, but not more than 20.”
Annex 1

Terms of Reference and Mandate of the IPCC Task Group on Data Support for Climate Change Assessments (TG-Data)

1 PURPOSE

The purpose of the TG-Data is to:

1.1 Provide guidance to the IPCC’s Data Distribution Centre (DDC) in order to provide curation, transparency, traceability and stability of data and scenarios related to the reports of the IPCC.

1.2 Facilitate, in cooperation with the DDC, the availability and consistent use of climate change related data and scenarios in support of the implementation of the work programme of the IPCC.

1.3 Facilitate in cooperation with the DDC the availability and use of climate change related data resulting from the activities of the IPCC in accordance with the mandate of the IPCC.

2 ROLES AND RESPONSIBILITIES

With respect to IPCC’s Data Distribution Centre (DDC) the TG-Data will:

2.1 Provide oversight of the DDC’s activities, in close liaison with the three IPCC Working Group Bureaus (WGBs).

2.2 Identify in close liaison with the Co-Chairs or their representatives of the three Working Groups (WGs) relevant external sources of data, scenario information, and external data partnerships.

2.3 Provide in close liaison with the Co-Chairs or their representatives of three WGs guidance to incorporate consistently and efficiently relevant regional data and scenario information into the IPCC assessment work by developing and proposing policies and structures that will help to link and curate data as needed and used by the Co-Chairs or their representatives of the three WGs.

2.4 Recommend partnerships with external organisations to ensure the stability of the IPCC data sets they hold.

With respect to the use of data and scenarios the TG-Data will:

2.5 Provide expert information on data and scenarios in support of the implementation of the work programme of the IPCC.

2.6 In cooperation with the Co-Chairs or their representatives of the three WGs, develop and update good practice guidance materials related to data and scenarios, targeting IPCC authors who lack familiarity with the IPCC process and/or the relevant data and scenarios.

2.7 Contribute to building capacity in the use of data and scenarios for climate-related research, particularly in developing and transition-economy regions and countries. e.g. through encouraging activities such as expert meetings and liaison with relevant academic institutions to address the requirements of developing countries. To achieve this, TG-Data may work with organizations and activities that have training as their core mandate but would not develop training programmes on their own.

Furthermore, the TG-Data will:

2.8 Explore in close consultation with the Co-Chairs or their representatives of the three WGs options for a sustainable structure, functioning, and resourcing for the DDC building upon the material contained in Annex 9 to the present report.

3 MEMBERSHIP
3.1 Members including the TG-Data Co-Chairs will be selected by the IPCC Bureau.

3.2 Members will be selected from nominations of experts solicited by the IPCC Secretariat from governments and observer organizations.

3.3 TG-Data will be composed of approximately 12 members, but not more than 15. The composition of the TG-Data shall aim to reflect to the extent possible:
   a) the range of scientific, technical and socio-economic views and expertise as needed to fulfil its role and responsibilities;
   b) geographical representation, experts from developed and developing countries and from countries with economies in transition,
   c) a mixture of experts with and without previous experience in IPCC;
   d) gender balance;
   e) experts with a background from relevant stakeholder and user groups.

3.4 The TG-Data shall have two Co-Chairs with suitable experience, one from a developed country and another from a developing country/EIT. At least one of the Co-Chairs should preferably be female.

3.5 The DDC managers and relevant TSU staff are ex-officio members of the TG-Data invited to share their views and experiences.

4 TERM

4.1 The term of membership on the TG-Data is to be linked to the assessment cycle of the IPCC and be refreshed at latest with the author selection process of a new comprehensive assessment, though with contingency for members to serve shorter terms.

5 MODUS OPERANDI

5.1 Within the framework of the purpose and the roles and responsibilities, the TG-Data, in consultation with the WG Co-Chairs, will prepare its draft workplan for duration of its term, including a list of activities and meetings, associated deliverables and respective timelines. The workplan is subject to review by the IPCC Bureau and presented to the Panel for approval, contingent on the availability of funds.

5.2 TG-Data should have one face to face meeting in a year. Additional meetings will be preferably held through teleconferencing and/or in combination with existing IPCC meetings where TG-Data members will be present. The TG-Data may convene expert meetings on an as needed basis. Teleconferencing arrangements will be provided from the IPCC Secretariat.

5.3 The TG-Data Co-Chairs are responsible for preparing meeting agendas and minutes, with support from the IPCC Secretariat.

6 REPORTING

6.1 TG-Data is accountable to the Bureau and reports through the IPCC Bureau to the Panel.
Annex 2

Guidance for the core functions of the IPCC Data Distribution Centre (DDC)

1 PURPOSE

1.1 The purpose of the IPCC Data Distribution Centre (DDC) is to archive and provide transparency, traceability, and stability of data and scenarios that are relevant in the context of the IPCC.

2 ROLES AND RESPONSIBILITIES

The DDC will, contingent on the availability of resources:

2.1 Archive and provide transparency, traceability, and stability of data and scenarios used by the IPCC in its reports, available at the DDC or elsewhere.

2.2 Archive and provide transparency, traceability, and stability of data and scenarios underpinning key figures and tables, and headline statements in the IPCC reports.

2.3 Collaborate as appropriate with data centers that hold data or provide functions relevant to the IPCC in a transparent manner, under the guidance of the TG-Data and the Working Group Bureaus (WGBs), to provide information via IPCC websites relevant to data and scenarios.

2.4 Curate new data sets unavailable elsewhere and link to external data sets of relevance.

2.5 Improve accessibility to Data Distribution Centre materials for supporting IPCC authors and external users, especially in developing countries.

2.6 Contribute to a sustainable structure established and approved by the IPCC to provide observed and model data and information relevant at regional scales.

3 REPORTING

3.1 TG-Data reports on DDC’s activities to the IPCC Bureau.
Decision IPCC-XLIX-7. Short-lived Climate Forcers

Document: IPCC-XLIX/Doc. 8

The Intergovernmental Panel on Climate Change at its 49th Session decides to:

1. Approve that the IPCC Task Force on National Greenhouse Gas Inventories produces an IPCC Methodology Report on Short-lived Climate Forcers following the Appendix A to the Principles Governing IPCC work.

2. Adopt Annex 1 to this decision in the preparation of the Methodology Report.

Annex 1

Approach

- The preparatory work for the Methodology Report (including supporting materials and scoping) is completed as soon as possible, starting in the AR6 cycle. Followed by further methodological development in the AR7 cycle.

Output and Timeline

- Expert meetings will produce a series of supporting materials to be published after each meeting but no later than 2022.
- These supporting materials will be used to inform the scoping of methodological work for short lived climate forcers (SLCF).
- The scoping meeting will take into consideration the work on SLCF underway in the reports of Working Group I (April 2021) and III (July 2021)
- The outline will be presented for approval to the Panel soon after the scoping meeting.

Required Activities

- Technical analysis work by TFI TSU with other experts.
- 3-4 Expert meetings
- Scoping Meeting
- Approval of outline by the Panel
Decision IPCC-XLIX-8. IPCC Trust Fund Programme and Budget for the years 2019, 2020, 2021 and 2022

Document: IPCC-XLIX/Doc. 2

Based on the recommendations of the Financial Task Team (FiTT), the 49th Session of the Intergovernmental Panel on Climate Change:

1. Appreciates the support that the Secretariat of the IPCC provides to the IPCC process;

2. Approves the revised budget for 2019, as contained in Annex 1;

3. Approves the proposed budget for 2020, as contained in Annex 2;

4. Notes the forecast budget for 2021, as contained in Annex 3;

5. Notes the indicative budget for 2022, as contained in Annex 4;

6. Welcomes with gratitude all contributions and pledges from members, especially from developing countries and International Organizations and encourages all members of the IPCC to maintain or increase their financial support, also through multi-year pledges, so as to enhance the financial stability of the IPCC in the long term;

7. Encourages members to make first-time contributions to the IPCC Trust Fund in order to broaden the donor base;

8. Expresses its gratitude to members that support the Technical Support Units (TSUs) and a number of IPCC activities, including data centres, meetings and outreach activities;

9. Encourages members to transfer funds as soon as practicable, while noting that contributions from IPCC members are due on 1 January of each calendar year, noting that when transferring funds to WMO, members should indicate that the contribution is “for the IPCC Trust Fund” to ensure proper identification of the recipient;

10. Expresses its gratitude to the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) for financing one Secretariat position each, and to WMO for hosting the Secretariat;

11. Expresses its gratitude to the United Nations Framework Convention on Climate Change (UNFCCC) for its contribution to the IPCC Trust Fund;

12. Decides to continue preparing the budget of the IPCC Trust Fund using the standard costs, bearing in mind that expenditures may be lower than the budget;

13. Requests that the Secretariat presents, in addition to statements according to IPSAS, the statement of financial position and financial performance on a modified cash basis which categorizes expenditures per activity as well as by natural account;

14. Requests the Secretariat to provide the panel with interim statements of expenditure covering the first six months of the year, as well as the projection of expenditure for the rest of the year;

15. Requests WMO to continue to seek the least expensive travel costs but to reject those which pose a high risk of late or non-arrival;
16. Encourages the Secretariat and Working Group Technical Support Units to follow the provision described in Paragraph 12 of Appendix B to the Principles Governing IPCC Work, authorizing the Secretary to reallocate funds up to 20 per cent of a budget appropriation line, to provide flexibility for the allocation of additional trips to Lead Author Meetings to support cross-Working Group linkages.
## ANNEX 1

### REVISED 2019 BUDGET FOR ADOPTION BY IPCC-XLIX

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIF support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPCC-49 4 days</td>
<td>Programme and budget Acceptance MR</td>
<td>480,000</td>
<td>100,000</td>
<td>580,000</td>
</tr>
<tr>
<td>IPCC-50 5 days</td>
<td>Acceptance SR 2 (Land)</td>
<td>480,000</td>
<td>350,000</td>
<td>830,000</td>
</tr>
<tr>
<td>IPCC-51 4 days</td>
<td>Acceptance SR3 (Oceans)</td>
<td>480,000</td>
<td>100,000</td>
<td>580,000</td>
</tr>
<tr>
<td>Bureau 4 days</td>
<td>2 sessions</td>
<td>288,000</td>
<td>120,000</td>
<td>408,000</td>
</tr>
<tr>
<td>TFB 1 session</td>
<td></td>
<td>36,000</td>
<td>6,120</td>
<td>42,120</td>
</tr>
<tr>
<td>UNFCCC and other UN meetings</td>
<td></td>
<td>80,000</td>
<td>0</td>
<td>80,000</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td><strong>2,520,120</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Lead Authors, Scoping, Expert Meetings and Workshops

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIF support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>WG I AR6 LA 2 and LA 3</td>
<td>CLA/LA meeting</td>
<td>840,000</td>
<td>210 journeys</td>
<td>840,000</td>
</tr>
<tr>
<td>WG II AR6 LA 1 and LA 2</td>
<td>CLA/LA meeting</td>
<td>832,000</td>
<td>141,440</td>
<td>973,440</td>
</tr>
<tr>
<td>WG III AR6 LA 1 and LA 2</td>
<td>CLA/LA meeting</td>
<td>800,000</td>
<td>68,000</td>
<td>868,000</td>
</tr>
<tr>
<td>SR 2 (Land) SPM Drafting meeting I</td>
<td>CLA, drafting authors, Co-Chairs</td>
<td>72,000</td>
<td>18 journeys</td>
<td>72,000</td>
</tr>
<tr>
<td>SR 2 (Land) SPM Drafting meeting II</td>
<td>CLA, drafting authors, Co-Chairs (held back-to-back with P50)</td>
<td>72,000</td>
<td>0</td>
<td>72,000</td>
</tr>
<tr>
<td>SR 3 (Oceans) SPM Drafting meeting I</td>
<td>CLA, drafting authors, Co-Chairs</td>
<td>48,000</td>
<td>12 journeys</td>
<td>48,000</td>
</tr>
<tr>
<td>SR 3 (Oceans) SPM Drafting meeting II</td>
<td>CLA, drafting authors, Co-Chairs (held back-to-back with P51)</td>
<td>12,000</td>
<td>0</td>
<td>12,000</td>
</tr>
<tr>
<td>SR 3 (Oceans) LA 4</td>
<td>CLA/LA meeting</td>
<td>329,000</td>
<td>49,640</td>
<td>341,640</td>
</tr>
<tr>
<td>SR 3 (Oceans) LA 4</td>
<td>CLA/LA meeting</td>
<td>180,000</td>
<td>30,600</td>
<td>210,600</td>
</tr>
<tr>
<td>SYR AR6 Scoping meeting 2</td>
<td></td>
<td>160,000</td>
<td>27,200</td>
<td>187,200</td>
</tr>
<tr>
<td>SYR AR6</td>
<td>CWT-1 meeting (moved to 2020)</td>
<td>48,000</td>
<td>8,160</td>
<td>56,160</td>
</tr>
<tr>
<td>TG-Data</td>
<td>1 meeting (contingency)</td>
<td>12,000</td>
<td>11 journeys</td>
<td>14,000</td>
</tr>
<tr>
<td>EFDB Editorial Board</td>
<td>1 meeting</td>
<td>96,000</td>
<td>24 journeys</td>
<td>112,000</td>
</tr>
<tr>
<td>EFDB Data meeting</td>
<td>1 meeting</td>
<td>40,000</td>
<td>10 journeys</td>
<td>46,800</td>
</tr>
<tr>
<td>EFDB and Software Users Feedback (J-K)</td>
<td>1 meeting</td>
<td>44,000</td>
<td>11 journeys</td>
<td>44,000</td>
</tr>
<tr>
<td>TFI Methodological devt Prep meeting before Plenary (moved from 2017)</td>
<td>64,000</td>
<td>16 journeys</td>
<td>0</td>
<td>64,000</td>
</tr>
<tr>
<td>TFI Expert meeting</td>
<td>1 meeting (contingency)</td>
<td>100,000</td>
<td>17,000</td>
<td>117,000</td>
</tr>
<tr>
<td>TFI Methodological devt. Science meeting</td>
<td>1 meeting (contingency) (moved from 2018)</td>
<td>80,000</td>
<td>10,200</td>
<td>90,200</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td><strong>4,171,360</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Expenditures

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIF support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 GL software maintenance/development</td>
<td></td>
<td></td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td>EFDB maintenance &amp; production of offline update/management</td>
<td></td>
<td></td>
<td></td>
<td>28,000</td>
</tr>
<tr>
<td>Publications/Translations IPCC publications (MR &amp; SRs)</td>
<td></td>
<td></td>
<td></td>
<td>600,000</td>
</tr>
<tr>
<td>Communication I AR6 material/travel/events</td>
<td></td>
<td></td>
<td></td>
<td>490,000</td>
</tr>
<tr>
<td>Communication II AR6 outreach events*</td>
<td></td>
<td></td>
<td></td>
<td>153,960</td>
</tr>
<tr>
<td>Distribution IPCC publications</td>
<td></td>
<td></td>
<td></td>
<td>100,000</td>
</tr>
<tr>
<td>IT Infrastructure web hosting/cloudflare/upgrades</td>
<td></td>
<td></td>
<td></td>
<td>13,128</td>
</tr>
<tr>
<td>External Audit audit fee</td>
<td></td>
<td></td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Advisory Services Conflict of Interest</td>
<td></td>
<td></td>
<td></td>
<td>15,000</td>
</tr>
<tr>
<td>Co-Chairs support</td>
<td></td>
<td></td>
<td></td>
<td>200,000</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td><strong>1,623,088</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Secretariat

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIF support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretariat staff costs/misc expenses</td>
<td></td>
<td></td>
<td></td>
<td>1,912,500</td>
</tr>
<tr>
<td>Resource Mobilization travel costs (Phase I: 2017-2019)</td>
<td></td>
<td></td>
<td></td>
<td>15,600</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td><strong>1,928,100</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** | | **10,242,868** | | |

All activities subject to Panel approval in IPCC-49

* Regional/local events

Revised/new activities
## ANNEX 2

### PROPOSED 2020 BUDGET FOR ADOPTION BY IPCC-XLIX

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIT support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governing bodies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPCC-52 4 days</td>
<td>Programme and budget</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>IPCC-53 4 days</td>
<td>Programme and budget</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>Bureau 4 days</td>
<td>2 sessions</td>
<td>288,000</td>
<td>120,000</td>
<td>408,000</td>
</tr>
<tr>
<td>TFB</td>
<td>1 session</td>
<td>36,000</td>
<td>6,120</td>
<td>42,120</td>
</tr>
<tr>
<td>UNFCCC and other UN meetings</td>
<td></td>
<td>80,000</td>
<td>0</td>
<td>80,000</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>2,050,120</strong></td>
</tr>
</tbody>
</table>

| Lead Authors, scoping, expert meetings and workshops | | | | |
| WG I AR6 LA 4 | CLA/LA meeting | 440,000 | 74,800 | 514,800 |
| WG II AR6 LA 3 and LA 4 | CLA/LA meeting | 920,000 | 156,400 | 1,076,400 |
| WG III AR6 LA 3 and LA 4 | CLA/LA meeting | 848,000 | 144,160 | 992,160 |
| Expert meeting - Science of Communicating Science | 1 meeting | 80,000 | 13,600 | 93,600 |
| SYR AR6 CWT-1 and CWT-2 | | 120,000 | 20,400 | 140,400 |
| SYR AR6 CWT-3 meeting | (moved to 2021) | 0 | 0 | 0 |
| TG-Data | 1 meeting contingency | 48,000 | 8,160 | 56,160 |
| EFDB Editorial Board | 1 meeting | 96,000 | 16,320 | 112,320 |
| EFDB Data meeting | 2 meetings | 80,000 | 13,600 | 93,600 |
| EFDB and Software Users Feedback (Japan) | 1 meeting | 44,000 | 0 | 44,000 |
| TFI Expert meeting on Short-lived Climate Forcers | 2 meetings (contingency) | 320,000 | 54,400 | 374,400 |
| TFI Expert meeting | 1 meeting contingency | 100,000 | 17,000 | 117,000 |
| **SUB-TOTAL** | | | | **3,614,840** |

| Other Expenditures | | | | |
| 2006 GL software | maintenance/development | 18,000 | | |
| EFDB maintenance | update/management | 7,000 | | |
| Publications/Translations | IPCC publications | 200,000 | | |
| Communication I AR6 | material/travel/events | 590,000 | | |
| Communication II AR6 | outreach events* | 153,960 | | |
| Distribution | IPCC publications | 100,000 | | |
| IT Infrastructure | web hosting/cloudflare/upgrades | 13,128 | | |
| External Audit | audit fee | 20,000 | | |
| Advisory Services | Conflict of Interest | 15,000 | | |
| Co-Chairs | support | 200,000 | | |
| **SUB-TOTAL** | | | | **1,317,088** |

| Secretariat | | | | |
| Secretariat | staff costs/misc expenses | 1,912,500 | | |
| Resource Mobilization | travel costs (Phase II: 2020-2022) | 15,800 | | |
| **SUB-TOTAL** | | | | **1,928,300** |

**TOTAL** | | | | **8,910,348**

All activities subject to Panel approval in IPCC-49

* Regional/local events

Revised/new activities
## ANNEX 3

### FORECAST 2021 BUDGET PROPOSED TO IPCC-XLIX

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIT support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Governing bodies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPCC-54 4 days</td>
<td>Programme and budget Acceptance AR6 WG I</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>IPCC-55 4 days</td>
<td>Acceptance AR6 WG III</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>IPCC-56 4 days</td>
<td>Programme and budget Acceptance AR6 WG II</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>Bureau 4 days</td>
<td>2 sessions</td>
<td>288,000</td>
<td>120,000</td>
<td>408,000</td>
</tr>
<tr>
<td>TFB</td>
<td>1 session</td>
<td>36,000</td>
<td>6,120</td>
<td>42,120</td>
</tr>
<tr>
<td>UNFCCC and other UN meetings</td>
<td></td>
<td>80,000</td>
<td></td>
<td>80,000</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>2,810,120</strong></td>
</tr>
<tr>
<td><strong>Lead Authors, scoping, expert meetings and workshops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYR AR6</td>
<td>CWT-3 meeting</td>
<td>60,000</td>
<td>10,200</td>
<td>70,200</td>
</tr>
<tr>
<td>SYR AR6</td>
<td>CWT-4 &amp; CWT-4 bis meetings</td>
<td>120,000</td>
<td>20,400</td>
<td>140,400</td>
</tr>
<tr>
<td>TG-Data</td>
<td>1 meeting contingency</td>
<td>48,000</td>
<td>8,160</td>
<td>56,160</td>
</tr>
<tr>
<td>EFDB Editorial Board</td>
<td>1 meeting</td>
<td>96,000</td>
<td>16,320</td>
<td>112,320</td>
</tr>
<tr>
<td>EFDB Data meeting</td>
<td>2 meetings</td>
<td>80,000</td>
<td>13,600</td>
<td>93,600</td>
</tr>
<tr>
<td>EFDB and Software Users Feedback (Japan)</td>
<td>1 meeting</td>
<td>44,000</td>
<td>0</td>
<td>44,000</td>
</tr>
<tr>
<td>TFI Expert meeting on Short-lived Climate Forcers</td>
<td>2 meetings (contingency)</td>
<td>320,000</td>
<td>54,400</td>
<td>374,400</td>
</tr>
<tr>
<td>TFI Expert meeting</td>
<td>1 meeting contingency</td>
<td>100,000</td>
<td>17,000</td>
<td>117,000</td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,008,080</strong></td>
</tr>
<tr>
<td><strong>Other Expenditures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 GL software maintenance/development</td>
<td></td>
<td></td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>EFDB maintenance update/management</td>
<td></td>
<td></td>
<td>7,000</td>
<td></td>
</tr>
<tr>
<td>Publications/Translations IPCC publications (WG II/III)</td>
<td></td>
<td></td>
<td>600,000</td>
<td></td>
</tr>
<tr>
<td><strong>Communication I</strong> AR6 material/travel/events</td>
<td></td>
<td></td>
<td><strong>672,040</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Communication II</strong> AR6 outreach events*</td>
<td></td>
<td></td>
<td><strong>153,960</strong></td>
<td></td>
</tr>
<tr>
<td>Distribution IPCC publications</td>
<td></td>
<td></td>
<td><strong>100,000</strong></td>
<td></td>
</tr>
<tr>
<td>IT Infrastructure web hosting/cloudflare/upgrades</td>
<td></td>
<td></td>
<td><strong>13,128</strong></td>
<td></td>
</tr>
<tr>
<td>External Audit audit fee</td>
<td></td>
<td></td>
<td><strong>20,000</strong></td>
<td></td>
</tr>
<tr>
<td>Advisory Services Conflict of Interest</td>
<td></td>
<td></td>
<td><strong>15,000</strong></td>
<td></td>
</tr>
<tr>
<td>Co-Chairs support</td>
<td></td>
<td></td>
<td><strong>200,000</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>1,787,128</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Secretariat</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secretariat staff costs/misc expenses</td>
<td></td>
<td></td>
<td><strong>1,912,500</strong></td>
<td></td>
</tr>
<tr>
<td>Resource Mobilization travel costs (Phase II: 2020-2022)</td>
<td></td>
<td></td>
<td><strong>15,800</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>1,928,300</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>7,533,628</strong></td>
</tr>
</tbody>
</table>

All activities subject to Panel approval in IPCC-52

* Regional/local events

Revised/new activities
## ANNEX 4

### INDICATIVE 2022 BUDGET PROPOSED TO IPCC-XLIX

#### Governing bodies

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIT support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPCC-57</td>
<td>Acceptance SYR AR6</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>4 days</td>
<td></td>
<td>120 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPCC-58</td>
<td>Programme and budget</td>
<td>480,000</td>
<td>280,000</td>
<td>760,000</td>
</tr>
<tr>
<td>4 days</td>
<td></td>
<td>120 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureau</td>
<td>2 sessions</td>
<td>288,000</td>
<td>120,000</td>
<td>408,000</td>
</tr>
<tr>
<td>4 days</td>
<td></td>
<td>72 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive Committee</td>
<td>2 sessions and consultations</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TFB</td>
<td>1 session</td>
<td>36,000</td>
<td>6,120</td>
<td>42,120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNFCCC</td>
<td></td>
<td>80,000</td>
<td>0</td>
<td>80,000</td>
</tr>
<tr>
<td>and other UN meetings</td>
<td></td>
<td>20 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>2,050,120</strong></td>
</tr>
</tbody>
</table>

#### Lead Authors, scoping, expert meetings and workshops

<table>
<thead>
<tr>
<th>Activity</th>
<th>Purpose</th>
<th>DC/EIT support</th>
<th>Other Expenditure</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYR AR6</td>
<td>CWT-5 meeting</td>
<td>60,000</td>
<td>10,200</td>
<td>70,200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG-Data</td>
<td>1 meeting</td>
<td>48,000</td>
<td>8,160</td>
<td>56,160</td>
</tr>
<tr>
<td></td>
<td>contingency</td>
<td>12 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFDB Editorial Board</td>
<td>1 meeting</td>
<td>96,000</td>
<td>16,320</td>
<td>112,320</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFDB Data meeting</td>
<td>2 meetings</td>
<td>80,000</td>
<td>13,600</td>
<td>93,600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFDB and Software Users Feedback (Japan)</td>
<td>1 meeting</td>
<td>44,000</td>
<td>0</td>
<td>44,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TFI – Short-lived Climate Forcers</strong></td>
<td>Scoping meeting (contingency)</td>
<td>180,000</td>
<td>27,200</td>
<td>187,200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TFI Expert meeting</strong></td>
<td>1 meeting</td>
<td>100,000</td>
<td>17,000</td>
<td>117,000</td>
</tr>
<tr>
<td></td>
<td>contingency</td>
<td>25 journeys</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUB-TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>680,480</strong></td>
</tr>
</tbody>
</table>

#### Other Expenditures

- 2006 GL software maintenance/development: 6,000
- EFDB maintenance update/management: 7,000
- Publications/Translations IPCC publications (SYR): 200,000
- Communication AR6 material/travel/events: 672,040
- Distribution IPCC publications: 100,000
- IT Infrastructure web hosting/cloudflare/upgrades: 13,128
- External Audit fee: 20,000
- Advisory Services Conflict of Interest: 15,000
- Co-Chairs support: 200,000
- **SUB-TOTAL**: 1,233,168

#### Secretariat

- Secretariat staff costs/misc expenses: 1,912,500
- Resource Mobilization travel costs (Phase II: 2020-2022): 15,800
- **SUB-TOTAL**: 1,928,300
- **TOTAL**: 5,892,068

---

All activities subject to Panel approval in IPCC-S4

---

**Revised/new activities**

Documents: IPCC-XLIX/Doc.3a, Rev.3 ; IPCC-XLIX/Doc.3b, Rev.3, IPCC-XLIX/Doc.11

The Intergovernmental Panel on Climate Change at its 49th Session decides to adopt the Overview Chapter and to accept the underlying Methodology Report entitled “2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories”. It does so in accordance with Sections 4.4 and 4.5 of Appendix A to the Principles Governing IPCC Work, Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports; and in accordance with Principle 10 (b) of the Principles Governing IPCC Work.¹

---

¹ 10 (b) for approval, adoption and acceptance of reports, differing views shall be explained and, upon request, recorded. Differing views on matters of a scientific, technical or socio-economic nature shall, as appropriate in the context, be represented in the scientific, technical or socio-economic document concerned. Differences of views on matters of policy or procedure shall, as appropriate in the context, be recorded in the Report of the Session.
CHAIR OF THE IPCC

Hoesung LEE
Korea University
c/o Korea Meteorological Administration, 16-gil-61
Yeouidaebangro, Dongjak-gu
Seoul
Republic of Korea
Tel.+82 2 835 1363
E-mail: leehoesung@gmail.com

BUREAU MEMBERS

Noureddine YASSAA
WGI Vice-chair
Centre de Developpement des Energies
Renouvelables
Route de l'Observatoire, B.P. 62, Bouzareah,
16340
Algiers
Algeria
Tel.+21321901561
E-mail: n.yassaa@cder.dz

Carolina VERA
WGI Vice-chair
Murillo 1121 5 H
CIMA,
Buenos Aires
Argentina
Tel.+54 11 47872650
E-mail: carolina@cima.fcen.uba.ar

Mark HOWDEN
WG II Vice-chair
Australian National University Acton
Canberra ACT 2601
Australia
Tel.+61 2 6125 7266
E-mail: Mark.Howden@anu.edu.au

Thelma KRUG
IPCC Vice-chair
Remote Sensing Department
Instituto Nacional de Pesquisas Espaciais - INPE
Sao Jose dos Campos
Brazil
Tel.+55 1 232086442
E-mail: thelma.krug@inpe.br

Gregory FLATO
WGI Vice-chair
Canadian Centre for Climate Modelling and Analysis
Environment and Climate Change Canada
Victoria
Canada
Tel.+1-250-363-8233
E-mail: greg.flato@canada.ca

Panmao ZHAI
WGI Co-chair
China Meteorological Administration
46 Zhongguancun Nandajie, 100081
Beijing
China
Tel.+86 10 68409421
E-mail: pmzhai@cma.gov.cn

Ramon De La Concepcion PICHIS MADRUGA
WGIII Vice-chair
Centre for World Economy Studies (CIEM)
CIEM, Calle 22 No. 309, Miramar, Habana 13
Havana
Cuba
Tel.+5372042507
E-mail: rpichsciem@ceniai.inf.cu

Valerie MASSON DELMOTTE
WGI Co-chair
LSCE
Route de l Orme des merisiers
Gif sur Yvette
France
Tel.+33 6 79 08 21 22
E-mail: valerie.masson@lsce.ipsl.fr

Hans-O. PÖERTNER
WGII Vice-chair
Alfred-Wegener-Institut
Am Handelshafen 12
Bremerhaven
Germany
Tel.+4947148311307
E-mail: hans.poertner@awi.de

Diana ÜRGE-VORSATZ
WGIII Vice-chair
Central European University
Nádor street 9.
Budapest
Hungary
Tel.+3613273095
E-mail: vorsatzd@ceu.edu
James SKEA  
WGIII Co-chair  
Imperial College London  
14 Princes Gardens  
London  
UK  
Tel.+44 207 594 9294  
E-mail: j.skea@imperial.ac.uk

Pius YANDA  
WGII Vice-chair  
University of Dar-es-Salaam  
P.O. Box 33453  
Dar-es-Salaam  
United Republic of Tanzania  
Tel.+-2410474  
E-mail: pyanda@gmail.com

Ko BARRETT  
IPCC Vice-chair  
1315 East West Hwy  
Silver Spring MD  
United States of America  
Tel.+3017341054  
E-mail: ko.barrett@ipcc.ch

Carlos MENDEZ  
WGII Vice-chair  
Science Minister  
Kilometro 11, carretera Panamericana  
Caracas  
Venezuela  
Tel.+582125041246  
E-mail: carlos.menvall@gmail.com

ANGOLA  
Luis CONSTANTINO  
Ministry of Environment  
Rua dos Enganos, No. 05 Torre Zimbo 4º Andar  
Kinaxixi  
Luanda  
Angola  
Tel.+244 222 010755  
E-mail: luisdomingosconstantino@gmail.com

ARGENTINA  
Macarena MOREIRA MUZIO  
Secretariat of Environment and Sustainable Development of Argentina  
Reconquista 555  
Buenos Aires  
Argentina  
Tel.+541143488648  
E-mail: macarena.moreiramuzio@gmail.com

AUSTRALIA  
Julia GARDINER  
Department of the Environment and Energy  
John Gorton Building King Edward Terrace Parkes  
2601  
Canberra  
Australia  
Tel.+61261597141  
E-mail: Julia.Gardiner@environment.gov.au

AUSTRIA  
Manfred OGRIS  
Fed. Ministry for Agriculture, Forestry, Environment and Water  
Stubenbastei 5  
A-1010 Wien  
Austria  
Tel.+431 71100611741  
E-mail: manfredogriss@gmx.at

AZERBEIJAN  
Jeyhun HASANOV  
Ministry of Ecology and Natural Resources of Republic of Azerbaijan  
H.Aliyev ave 10  
Baku  
Azerbaijan  
Tel.+(99412)5662794  
E-mail: jeyhun360@gmail.com

MEMBER COUNTRIES

ALGERIA  
Hamza MERABET  
Centre de Developpement des Energies Renouvelables  
Route de l’Observatoire, B.P. 62, Bouzareah, 16340  
Algiers  
Algeria  
Tel.+21323189051  
E-mail: h.merabet@ceder.dz
BAHAMAS
Jeffrey SIMMONS
Bahamas Department of Meteorology
P.O. Box N8330
Nassau
Bahamas
Tel.+242 702 5250
E-mail: jeffreywsimmons@gmail.com

BELGIUM
Philippe MARBAIX
Plateforme Wallone de GIEC/UCL
Place Louis Pasteur 3, (bte L4.03.08)
1348 Louvain-la-Neuve
Belgium
Tel.+32 (0) 10 47 32 99
E-mail: Philippe.Marbaix@uclouvain.be
Martine VANDERSTRAETEN
BELSPO - Belgian federal Science Policy Office
Louizalaan 231 - Avenue Louise 1050
1050 Brussels
Belgium
Tel.+32 (0) 2 238 36 10
E-mail: vdst@belspo.be
Jean-Pascal VAN YPERSELE
Université catholique de Louvain (UCL) - Georges Lemaître Centre for Earth and Climate Research (TECLIM)
Place Louis Pasteur 3, (bte L4.03.08)
1348 Louvain-la-Neuve
Belgium
Tel.+32 (0) 10 47 32 96
E-mail: vanyp@climate.be

BELIZE
Michelle AUGUSTINE
National Meteorological Service of Belize
Phillip Goldson International Airport, Ladyville
Belize, P.O. Box 717
E-mail: msmith@hydromet.gov.bz

BHUTAN
Singay DORJI
National Center for Hydrology and Meteorology,
Thimphu Bhutan
Weather and Climate Services Division, National Center for Hydrology and Meteorology, Thimphu,
Post Box 207, Thimphu Bhutan
Thimphu
Bhutan
Tel.+975 2 324999
E-mail: sdorji@nchm.gov.bt

BOLIVIA
Carlos Ivan ZAMBRANA FLORES
Plurinational Authority of Mother Earth
Calle Juan de Vargas 2012A, Miraflores
La Paz
Bolivia
Tel.+591(2)218 4025
E-mail: ivan.zambrana@madretierra.gob.bo

BOSNIA AND HERZEGOVINA
Goran TRBIC
University of Banja Luka Faculty of Science
Mladen Stojanovica 2
Banja Luka
Bosnia and Herzegovina
Tel.+387 51324561
E-mail: trbicg@pmfbl.org

BOTSWANA
Janet SELATO
Department of Meteorological Services
P.O. Box 10100
Gaborone
Botswana
Tel.+267 361 2201
E-mail: jselato@gov.bw Botswana

Galebonwe RAMAPHANE
University of Botswana
P/Bag UB 00704
Gaborone
Botswana
Tel.+267 355 4680
E-mail: galebonwe.ramaphane@mopipi.ub.bw
BRAZIL

Gustavo MOZZER
EMBRAPA
Unidade de Políticas Publicas/ Public Policy Unit
Brasília
Brazil
Tel.+55 (61) 3448-1654
E-mail: gustavo.mozzer@embrapa.br

Andréa NASCIMENTO DE ARAUJO
Ministry of Science, Technology and Innovation
Esplanada dos Ministérios, Bloco E, s. 268 - CEP 70067-900
Brasília
Brazil
Tel.+55 61 2033 8074
E-mail: anaraujo@mctic.gov.br

Paulo BRAGA
Ministry of Foreign Affairs
Esplanada dos Ministerios Bloco H Anexo III 3 andar
Brasília
Brazil
Tel.+55 61 20306072
E-mail: paulo.braga@itamaraty.br

Eleneide SOTTA
Ministry of Agriculture, Livestock and Food Supply
Esplanada dos Ministérios Bloco D, Ministério da Agricultura Pecuária e Abastecimento, - Brasília - DF - CEP 70.043-90
Brasília
Brazil
Tel.+55 (61)3218-2828
E-mail: eleneide.sotta@agricultura.gov.br

Kàtia MARZALL
Ministry of Agriculture, Livestock and Food Supply
Esplanada dos Ministérios Bloco D, Ministério da Agricultura Pecuária e Abastecimento, - Brasília - DF - CEP 70.043-90
Brasília
Brazil
Tel.+55 (61)3218-2828
E-mail: katia.marzall@agricultura.gov.br

BURKINA FASO

Ulrich Jacques DIASSO
Agence Nationale de la Météorologie
‘01 BP 576
Ouagadougou
Burkina Faso
Tel.+22676177600
E-mail: udiasso@gmail.com

BURUNDI

Maurice SHIRAMANGA
BP 331 BUJUMBURA 331
Bujumbura
Burundi
Tel.+25722223150
E-mail: mshiramanga1961@gmail.com

CABO VERDE

Francisco DA VEIGA CORREIA
National Institute of Meteorology
BP. 467 INMG - Praia Cape Verde
Praia
Cabo Verde
Tel.+238 2617891
E-mail: franciscocorreia073@gmail.com

CAMBODIA

Sim TOUCH
Department of Climate Change
Techno Heritage Building, plot No.503, Blvd (St. 3), Khan Chamkamorn
Phnom Penh
Cambodia
Tel.+85512425346
E-mail: simtouch@gmail.com Cabo Verde

Sopunnaleap SETH
Department of Climate Change, General Secretariat of National Council for Sustainable Development
Techno Heritage Building, plot No.503, Blvd (St. 3), Khan Chamkamorn Phnom Penh, Cambodia
Phnom Penh
Cambodia
Tel.+855886261623
E-mail: sethsopunnaleap@gmail.com
Chanthoeun HENG
Department of Climate Change, General
Secretariat of National Council for Sustainable Development
Techno Heritage Building, plot No.503, Blvd (St. 3), Khan Chamkamon
Phnom Penh
Cambodia
Tel.+855-16-726668
E-mail: hcthoeuncc@gmail.com

CAMEROON
Temothee KAGONBE
MINEPDED, BP. 320
B.P 2981, Mimboman, Yaoundé.
Yaoundé
Cameroon
Tel.+237 677 44 27 31
E-mail: kagonbet@yahoo.fr Cameroon

CANADA
Raphaelle PELLAND ST-PIERRE
Environment and Climate Change Canada
351 Saint-Joseph Blvd
Gatineau
Canada
Tel.+819-938-4664
E-mail: raphaelle.pellandst-pierre@canada.ca

Karin SIMONSON
Natural Resources Canada
580 Booth St.
Ottawa
Canada
Tel.+1-343-292-8468
E-mail: karin.simonson@canada.ca

Katie VOGT
Environment and Climate Change Canada
351 Boulevard Saint-Joseph
Gatineau
Canada
Tel.+819-938-5847
E-mail: katie.vogt@canada.ca

Jacqueline GONçALVES
Environment and Climate Change Canada
351 Saint-Joseph Blvd
Gatineau
Canada
Tel.+819-938-5200
E-mail: jacqueline.goncalves@canada.ca

CENTRAL AFRICAN REPUBLIC
Athanase Hyacinthe Anaclet YAMBELE
Direction of Meteorology
B.p 941 Met Service Minister of Civil Aviation
Bangui
Central African Republic
Tel.+23675047802
E-mail: athyambele@yahoo.fr

CHAD
Hamid ABAKAR SOULEYMANE
Ministry of Civil Aviation and of the National Meteorology
National Meteorology Agency
NDjamena
Chad
Tel.+23562000047
E-mail: chogara11@yahoo.fr

CHILE
Richard MARTINEZ
Ministry of Environment
San Martin 73
Santiago
Chile
Tel.+56 2 25735877
E-mail: rd.martinez.caro@gmail.com

CHINA
Xiaofeng GUO
Department of Treaty and Law Ministry of Foreign Affairs
No.2, Nandajie, Chaoyangmen, Beijing
Beijing
China
Tel.+86 10 65963256
E-mail: guo_xiaofeng@mfa.gov.cn

Lei HUANG
China Meteorological Administration
46 Zhongguancun Nandajie
Beijing,100081
China
Tel.+86 10 68409594
E-mail: huanglei@cma.gov.cn
COMOROS
Said DJAMAL-DINE
Direction Generale de l'Environnement et des Forets
Ex-CEFADER
Mde
Comoros
Tel.+(269)3318984
E-mail: djasaid001@gmail.com

CONGO
Gervais Ludovic ITSOUA MADZOUS
Ministère du Tourisme et de l'Environnement
Direction Générale du Développement Durable,
11e Etage Tour Nabemba
Brazzaville
Congo
Tel.+242055317411
E-mail: imadzous2@gmail.com

COOK ISLANDS
Arona NGARI
Cook Islands Meteorological Service
P O Box 127
Avarua
Cook Islands
Tel.+682 20603
E-mail: arona.ngari@cookislands.gov.ck

CÔTE D'IVOIRE
Boni Narcisse KINDIA
National Meteorological Service
FHB International Airport 15 BP 990
Abidjan
Cote d'Ivoire
Tel.+22521586294
E-mail: kingbonik@yahoo.fr

CROATIA
Kreso PANDZIC
Meteorological and Hydrological Service
Gric 3
Zagreb
Croatia
Tel.+385 1 45 65 684
E-mail: pandzic@cirus.dhz.hr

CUBA
Celso PAZOS ALBERDI
Institute of Meteorology of Cuba
Loma de Casablanca
La Habana
Cuba
Tel.+(537) 86 86 408
E-mail: celso.pazos@insmet.cu

CZECH REPUBLIC
Radim TOLASZ
Czech Hydrometeorological Institute
Na Saabatce 17
Praha 4 - Komorany
Czech Republic
Tel.+420 596 900 277
E-mail: radim.tolasz@chmi.cz

DENMARK
Tilde Vejen JESPERSEN
Danish Meteorological Institute
Lyngbyvej 100
Copenhagen
Denmark
Tel.+45 20522639
E-mail: tje@dmi.dk
Tina CHRISTENSEN
Danish Meteorological Institute
Lyngbyvej 100
Copenhagen
Denmark
Tel.+45 3915 7496
E-mail: tic@dmi.dk

ECUADOR
Carlos Nicolas ZAMBRANO SANCHEZ
Ministry of Environment of Ecuador
Calle Madrid 1159 y Andalucia
Quito
Ecuador
Tel.+593 2 398 7600
E-mail: carlos.zambrano@ambiente.gob.ec
EGYPT
Sherif IBRAHIM
Egyptian Environmental Affairs Agency
30 Misr Helwan Elzeraee Road, Maadi
Cairo
Egypt
Tel.+2 02 2524 6162
E-mail: ipcc_eg.cccu@yahoo.com

EL SALVADOR
Antonio CANAS CALDERON
Ministry of Environment and Natural Resources
Calle y Colonia Las Mercedes, Km 5.5 carretera a Santa Tecla, Edificio MARN
San Salvador
El Salvador
Tel.+50321329418
E-mail: acanas@marn.gob.sv

ESTONIA
Taimar ALA
Environment Agency
Mustamäe tee 33
Tallinn
Estonia
Tel.+3725276074
E-mail: taimar.ala@envir.ee

FINLAND
Kaarle KUPIAINEN
Ministry of the Environment
Aleksanterinkatu 7,FI-00023 GOVERNMENT, P.O.Box 35 Government
Helsinki
Finland
Tel.+358 295 250 232
E-mail: kaarle.kupiainen@ym.fi

Elias HURMEKOSKI
Ministry of Agriculture and Forestry
PO Box 30, FI-00023 GOVERNMENT
Helsinki
Finland
Tel.+358 295162092
E-mail: elias.hurmekoski@mmm.fi

Paula PERÄLÄ
Ministry of the Environment
Aleksanterinkatu 7,FI-00023 GOVERNMENT, P.O.Box 35 Government
Helsinki
Finland
Tel.+358 295 250 224
E-mail: paula.peral@ym.fi

FRANCE
Olivier FONTAN
MEAE
37, quai d’Orsay
75007 PARIS
France
Tel.+33 1 43 17 63 55
E-mail: olivier.fontan@diplomatie.gouv.fr

Jean-marie FLAUD
MESR/DGRI
1 rue Descartes
75005 Paris
France
Tel.+33 1 55 55 88 36
E-mail: jean-marie.flaud@recherche.gouv.fr

Mathias ETIENNE
CITEPA
42 rue de Paradis,
75010 Paris
France
Tel.+33 1 44 83 68 83
E-mail: etienne.mathias@citepa.org

Eric BRUN
MTES
DGEC/SCEE/ONERC
92055 LA DEFENSE
France
Tel.+33 1 40 81 92 94
E-mail: eric.brun-barriere@developpement-durable.gouv.fr

GAMBIA
Lamin Mai TOURAY
Department of Water Resources
7, Marina Parade
Banjul
Gambia
Tel.+(220) 4227631
E-mail: touraylm@yahoo.co.uk
INDIA
Thiagarajan JAYARAMAN
TATA Institute of Social Sciences
DEONAR
Mumbai
India
Tel.+25524931
E-mail: tjayaraman@gmail.com

Pinaki SARKAR
CSIR-CIMFR
Digwadih Campus
Dhanbad
India
Tel.+91 94315 12885
E-mail: pscfr@rediffmail.com

Srinivasa Rao CHERUKUMALLI
ICAR-NAARM
Rajendranagar
Hyderabad
India
Tel.+91 40 24581322
E-mail: cherukumalli2011@gmail.com

Ajay RAGHAVA
Ministry of Environment, Forest and Climate Change
Pandit Deen Dayal Antyodaya Bhawan, CGO Complex
New Delhi
India
Tel.+91 11 24362735
E-mail: ajay.raghava@nic.in

INDONESIA
Joko PRIHATNO
Ministry of Environment and Forestry
Manggala Wanabakti Building, 6th Floor Block 4, Jalan Gatot Subroto
Jakarta
Indonesia
Tel.+62 21 57903073 ext 4007
E-mail: prihatnojoko@yahoo.com

Dodo GUNAWAN
Agency for Meteorology, Climatology, and Geophysics
Jl. Angkasa I No.2 Kemayoran - Jakarta Pusat
Jakarta
Indonesia
Tel.+62-21 4246321
E-mail: dodogunawan88@gmail.com

Budiharto BUDIHARTO
Ministry of Environment and Forestry Indonesia
Manggala Wanabakti Building, Jalan Gatot Subroto
Jakarta
Indonesia
Tel.+622157903073
E-mail: budiharto.geo86@gmail.com

IRAN
Sadegh ZEYAEYAN
Islamic Republic of Iran Meteorological Organization (IRIMO)
Meraj. Blvd., Azadi Sq., MehrAbad Airport
Tehran
Iran
Tel.+982166070038
E-mail: s.ziayan@yahoo.com

IRAQ
Sahar Hussein JASIM
Climate Change Center
Arassat Al-Hidya
Baghdad
Iraq
Tel.+964-7729363015
E-mail: saharhussain84@gmail.com

IRELAND
Frank MCGOVERN
Richview, Clonskeagh Road
Dublin 14
Ireland
Tel.+35312680100
E-mail: f.mcgovern@epa.ie

ITALY
Eleonora COGO
CMCC
viale C. Berti Pichat 6/2
Bologna
Italy
Tel.+390510301622
E-mail: eleonora.cogo@cmcc.it
JAMAICA
Jacqueline SPENCE
Meteorological Service
65 3/4 Half Way Tree Road
Kingston 10
Jamaica
Tel.+1 876 929 3702
E-mail: j.spence@metservice.gov.jm

Ricardo ALICOCK
Embassy of Jamaica, Japan
2-13-1 Motoazabu, Minato-ku
Tokyo
Japan
Tel.+813-3435-1861
E-mail: alcock@hotmail.com

Vonroy ROCHESTER
Embassy of Jamaica, Tokyo
2-13-1 Motoazabu, Minato-ku
Tokyo
Japan
Tel.+813-3435-1861
E-mail: vrochester@gmail.com

JAPAN
Satoshi TOBITA
Japan International Research Center for Agricultural Sciences (JIRCAS)
1-1 Ohwashi, Tsukuba, Ibaraki 305-8686, Japan
Tsukuba
Japan
Tel.+81 29 838 6306
E-mail: bita1mon@jircas.affrc.go.jp

Shoko TATARA
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950, Japan
Tokyo
Japan
Tel.+81 3 6744 2473
E-mail: shoko_tataras820@maff.go.jp

Hirotaka SATO
Ministry of Education, Culture, Sports, Science and Technology (MEXT)
3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959, Japan
Tokyo
Japan
Tel.+81 3 6734 4143
E-mail: hrtk-sato@mext.go.jp

Shuji TANI
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8952, Japan
Tokyo
Japan
Tel.+81 3 3502 8240
E-mail: syuji_tani320@maff.go.jp

Izumi MIZUNO
Ministry of Education, Culture, Sports, Science and Technology (MEXT)
3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959, Japan
Tokyo
Japan
Tel.+81 3 6734 4181
E-mail: izumism@mext.go.jp

Masafumi SATO
Ministry of Education, Culture, Sports, Science and Technology (MEXT)
3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959, Japan
Tokyo
Japan
Tel.+81 3 6734 4181
E-mail: msatou@mext.go.jp

Akiko NAGANO
Ministry of Agriculture, Forestry and Fisheries (MAFF)
1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950, Japan
Tokyo
Japan
Tel.+81 3 6744 2473
E-mail: akiko_nagano720@maff.go.jp

Kochi TONOSAKI
Organization for Landscape and Urban Green Infrastructure
3-2-4 Kanda-Jimbocho, Chiyoda-ku, Tokyo 101-0051, Japan
Tokyo
Japan
Tel.++81 3 5216 7191
E-mail: tonosaki@urbangreen.or.jp
LAO PEOPLE'S DEMOCRATIC REPUBLIC

Imlama INTHABOUALY
Ministry of Natural Resources and Environment
Nahaidiew Rd, Ban Sisavath, Vientiane, Lao PDR
Vientiane Capital
Lao People's Democratic Republic
Tel.+85621 265017
E-mail: inthaboualy@gmail.com

Sangkhane THIANGTHAMMAVONG
Department of Climate Change, MONRE
Nahaidiew Rd, Ban Sisavath, Vientiane, Lao PDR
Vientiane Capital
Lao People's Democratic Republic
Tel.+85621 265017
E-mail: th.khan@yahoo.com

LESOTHO

Malehloa JOCKEY
Lesotho Meteorological Services
P.O Boc 14515
Maseru
Lesotho
Tel.+26622325029
E-mail: jockey2001@gmail.com

LIBERIA

Arthur GAR-GLAHN
Liberia Meteorological Service
Ministry of Transport
Monrovia
Liberia
Tel.+231 886 565 245
E-mail: agarglahn98@gmail.com

LIBYA

Abdelfatah SHIBANI
National Meteorological Centre ( NMC )
Eswani - ELKrimia, 17 km
Tripoli
Libya
Tel.+218215623082
E-mail: afshibani@gmail.com

LUXEMBOURG

Andrew FERRONE
Administration of Agricultural Technical Services
BP. 1904
L-1019 Luxembourg
Luxembourg
Tel.+352 45 71 72-322
E-mail: Andrew.Ferrone@asta.etat.lu

MADAGASCAR

Zo Andrianina Patrick Herintiana RAKOTOMAVO
Direction Generale de la Météorologie
Rue Farafaty, Ampandrianomby
Antananarivo
Madagascar
Tel.+261338431923
E-mail: yandrianina@yahoo.fr

MALDIVES

Zammath KHALEEL
Ministry of Environment and Energy
Ameenee Magu
Male
Maldives
Tel.+9607990654
E-mail: zammath.khaleel@environment.gov.mv

MAURITIUS

Kumar Ram DHURMEA
Mauritius Meteorological Services
St Paul Road
Vacoas
Mauritius
Tel.+230 6861031
E-mail: meteo@intnet.mu

MEXICO

Maria Amparo MARTINEZ ARROYO
National Institute of Ecology and Climate Change
Anillo Periferico 4209, Jardines en la MontaÂ±a,
14210 Ciudad de Mexico
Mexico City
Mexico
Tel.+52 5554246418
E-mail: direccion.general@inecc.gob.mx
MONACO
Jessica ASTIER
Monaco Government
3 avenue de Fontvieille
MONACO
Tel.+33626656935
E-mail: jastier.gouv@gmail.com

MONGOLIA
Purevjav GOMBOLUDEV
Information and Research Institute on
Meteorology, Hydrology and Environment
Juulchnii gudamj 5 Baga toiruu 3
Ulaanbaatar
Mongolia
Tel.+976 11318751
E-mail: p_gombo@hotmail.com

MONTENEGRO
Pavle DJURASKOVIC
Institute of Hydrometeorology and Seismology
IV Proleterske 19
Podgorica
Montenegro
Tel.+382 20 655 183
E-mail: pavle.djuraskovic@meteo.co.me

MYANMAR
May Khin CHAW
Department of Meteorology and Hydrology
Building (5), Ministry of Transport and
Communications, Nay Pyi Taw
Nay Pyi Taw
Myanmar
Tel.+95 67 3411528
E-mail: mkhinc@gmail.com

NEPAL
Maheshwar DHAKAL
Ministry of Forests and Environment
Singha Durbar
Kathmandu
Nepal
Tel.+97714016812
E-mail: maheshwar.dhakal@gmail.com

Bishwa Nath OLI
Ministry of Forests and Environment
Singha Darbar
Kathmandu
Nepal
Tel.+977 14200523
E-mail: bn oli@yahoo.com

NETHERLANDS
Marcel BERK
Ministry of Economic Affairs and Climate Policy
Beznidenhoutseweg 73
Den Haag
Netherlands
Tel.+31 6 5259 5453
E-mail: M.M.Berk@minez.nl

Rob VAN DORLAND
KNMI
Utrechtseweg 297, 3731GA De Bilt
De Bilt
Netherlands
Tel.+31302206775
E-mail: rob.van.dorland@knmi.nl

NEW ZEALAND
Helen PLUME
Ministry for the Environment
23 Kate Sheppard Place
Wellington 6143
New Zealand
Tel.+64 4 439 7627
E-mail: helen.plume@mfe.govt.nz

NICARAGUA
Oquist Kelley PAUL HEBERT
Presidencia de la Republica de Nicaragua
Avenida Bolivar, Managua
Managua
Nicaragua
Tel.+50586707309
E-mail: paul.oquist@presidencia.gob.ni

NIGERIA
Hamza Dukku MOHAMMED
Federal Ministry of Environment, Headquarter,
Mabushi, Aabuja
FCT
Nigeria
Tel.+2348037868375
E-mail: hamzadmoh56@gmail.com
Yerima Peter TARFA  
Department of Climate Change, Federal Ministry of Environment  
Green Building Maitama Abuja  
FCT  
Nigeria  
Tel. +2348135551311  
E-mail: petertarfa@hotmail.com

Emmanuel ONOVO  
Embassy of Nigeria  
3-6-1 Toranomon  
Minato-ku, Tokyo 105-0001  
Japan/Nigeria  
Tel. +03 5425 8011  
E-mail: onovo@nigeriaembassy.jp

Chukwuemeka OKEBUGWU  
Department of Climate Change, Federal Ministry of Environment  
Plot 444, Aguiyi Ironsi Street, Green Building  
Maitama Abuja, Nigeria  
Abuja  
Nigeria  
Tel. +234 8064426144  
E-mail: chuksokebugwu@yahoo.com

Natasa MARKOVSKA  
Macedonian Academy of Sciences and Arts  
Krsti Misirkov 2, P.O.Box 428  
Skopje  
North Macedonia  
Tel. ++389 2 32 35 427  
E-mail: natasa@manu.edu.mk

Ingrid Kleppenes VERNE  
Norwegian Environment Agency  
Grensesvingen 7  
Oslo  
Norway  
Tel. +4794814196  
E-mail: ingrid.kleppenes.verne@miljodir.no

Ole-kristian KVISSEL  
Norwegian Environment Agency  
Grensesvingen 7  
'0661 Oslo  
Norway  
Tel. +4793431034  
E-mail: okk@miljodir.no

Øyvind CHRISTOPHERSEN  
Norwegian Environment Agency  
Grensesvingen 7  
Oslo  
Norway  
Tel. +4797075014  
E-mail: chr@miljodir.no

Vigdis VESTRENG  
Norwegian Environment Agency  
Grensesvingen 7  
Oslo  
Norway  
Tel. +4790899054  
E-mail: vigdis.vestreng@miljodir.no

PARAGUAY

Jorge SANCHEZ  
Dirección de Meteorología e Hidrológi a - DINAC  
Cnel. Francisco LÁ³pez 1080 c/ De la Conquista  
Asunción  
Paraguay  
Tel. +595 21 2879000 ext 204  
E-mail: jorge.sanchez@meteorologia.gov.py

Ulises LOVERA  
Ministry of Environment and Sustainable Development  
Madame Lynch 3500  
Asunción  
Paraguay  
Tel. +595 21 2879000 ext 204  
E-mail: uliseslovera@hotmail.com

PERU

Margoth Melissa ESPINOZA  
Ministry of the Environment  
Av. Antonio Miroquesada (ex Juan de Aliaga) 425  
4° piso, urbanizacion San Felipe  
Magdalena del Mar  
Lima  
Peru  
Tel. +51 01 6116000  
E-mail: mespinoza@minam.gob.pe
PHILIPPINES
Sandee RECABAR
Climate Change Commission
First Residences, Malacanang Compound, J.P.
Laurel Street, San Miguel, Manila
Manila
Philippines
Tel.+6322547056
E-mail: recabarsg.ccc@gmail.com

QATAR
Mohmoud AL-MARWANI
Ministry of Municipality & Environment
P.O Box 7634
Doha
Qatar
Tel.+974 44263776
E-mail: mamarwani@mme.gov.qa

Mohammed AL-MARRI
Ministry of Municipality & Environment
Po Box 7634
Doha
Qatar
Tel.+974 44263516
E-mail: mjmarri@mme.gov.qa

Republic of KOREA
Hana KIM
Corporate Course for Climate Change,
SejongUniversity
218, Jiphyungwan, 209 Neungdong-ro, Gwangjin-Gu, Seoul 05006
Seoul
Republic of Korea
E-mail: hanakim0729@gmail.com

Yeonchul YOO
Ministry of Foreign Affairs
60 Sajik-ro 8-gil, Jonggo-gu, Seoul 03172
Seoul
Republic of Korea
E-mail: ycyoo87@mofa.go.kr

In-seong HAN
National Institute of Fisheries Science
105-702, 182 yangun-ro, Haeundae-gu
Busan
Republic of Korea
Tel.+82-51-720-2230
E-mail: hisjamstec@korea.kr

Hyung Jin KIM
APEC Climate Center
12 Centum 7-ro, Haeundae-gu
Busan
Republic of Korea
E-mail: hyungjin@apcc21.org

Ji Hyeon KIM
Korea Energy Economics Institute
405-11 Jongga-Ro Jung-Gu Ulsan 44543
Ulsan
Republic of Korea
Tel.+2768
E-mail: jhyeon@keei.re.kr

Dong Koo KIM
Korea Energy Economics Institute
405-11 Jongga-Ro Jung-Gu Ulsan 44543
Ulsan
Republic of Korea
E-mail: dongkoo.kim@keei.re.kr

Aram BAEK
Korea meteorological Administration
61 yeouidaebang-ro 16-gil, Dongjak-gu
Seoul
Republic of Korea
E-mail: arbaek@korea.kr

Jieun PARK
Korea meteorological Administration
61 yeouidaebang-ro 16-gil, Dongjak-gu
Seoul
Republic of Korea
E-mail: jieuni@korea.kr

Eunjeong LEE
Korea Meteorological Administration
61, 16-gil Yeouidaebang-ro, Dongjak-gu, Seoul 07062
Seoul
Republic of Korea
E-mail: ejlee70@korea.kr

Byoungcheol KIM
Korea Meteorological Administration
61, 16-gil Yeouidaebang-ro, Dongjak-gu, Seoul 07062
Republic of Korea
E-mail: kbcg@kma.go.kr
Ayman SHASLY
Ministry of Petroleum and Mineral Resources
P.O.Box 05347
Dhahran
Saudi Arabia
Tel.+96638733255
E-mail: ayman.shasly@gmail.com

Norah ALOTAIBI
Ministry of Energy, Industry and Mineral Resources
P.O.Box 6369
Dharan
Saudi Arabia
Tel.+966569014562
E-mail: Nura.Otaibi@meim.gov.sa

Bushra ALHINAI
Ministry of Energy, Industry and Mineral Resources
P.O.Box 247
Riyadh
Saudi Arabia
Tel.+966555351304
E-mail: bushra.hinai@meim.gov.sa

Mona ALATTAS
Ministry of Energy, Industry and Mineral Resources
MEIM
Dhahran
Saudi Arabia
Tel.+966507942463
E-mail: Mona.Attas@meim.gov.sa

Omar ALMULHEM
Ministry of Energy, Industry and Mineral Resources
P.O.Box 6369
Dhahran
Saudi Arabia
Tel.+966557376777
E-mail: Omer.almulhem@meim.gov.sa

SEYCHELLES
Will AGRICOLE
Ministry of Environment, Energy and Climate Change
Botanical Garden
Victoria, Mahe
Seychelles
Tel.+2484670500
E-mail: w.agricole@meteo.sc

SINGAPORExShu Hui Alyssa NG
Prime Minister’s Office
55 Newton Road Revenue House #11-01
Singapore 307987
Singapore
Tel.+6591729468
E-mail: alyssa.ng.work@gmail.com

Lek Kong WAN
National Environment Agency
40 Scotts Road Environment Building
Singapore
Singappore
Tel.+6567319623
E-mail: wan_lek_kong@nea.gov.sg

Angeline CHUI
Ministry of the Environment and Water Resources
Environment Building 40 Scotts Road #23-00
Singapore 228231
Singappore
Tel.+6567319459
E-mail: angeline_chui@mewr.gov.sg

Diane Wen Lin PENG
National Environment Agency
40 Scotts Road Environment Building
Singapore
Singapore
Tel.+6567319957
E-mail: diane_peng@nea.gov.sg

SLOVAKIA
Lenka MALATINSKA
Ministry of Environment of the Slovak Republic
Nam. L. Stura 1, 812 35
Bratislava
Slovakia
Tel.+421 2 5956 2589
E-mail: lenka.malatinska@enviro.gov.sk

SOUTH AFRICA
Itchell GUINEY
Department of Environmental Affairs
Private Bag X 447
Pretoria 0002
South Africa
Tel.+27123999180
E-mail: IGuiney@environment.gov.za
Maesela John KEKANA
Department of Environmental Affairs
Private Bax X447
Pretoria
South Africa
Tel.+27123999180
E-mail: mjkekana@environment.gov.za

SPAIN
Marta HERNÁNDEZ
OECC
Alcala 92
Madrid
Spain
Tel.+34 914361534
E-mail: mhcruz@miteco.es

SUDAN
Hazim SURAG
Sudan Meteorological Authority
Africa street, Sudan Meteorological Authority,
Khartoum, Sudan
Khartoum
Sudan
Tel.+227 82 228 770
E-mail: hazimsu@hotmail.com

SWEDEN
Lena LINDSTROEM
SMHI, Swedish Meteorological and Hydrological Institute
Folkborgsv. 17
Norrköping
Sweden
Tel.+46 (0)11-4958365
E-mail: lena.lindstrom@smhi.se

Markku RUMMUKAINEN
SMHI, Swedish meteorological and Hydrological Institute
Folkborgsv. 17
Norrköping
Sweden
Tel.+4958570
E-mail: markku.rummukainen@smhi.se

SWITZERLAND
Jose ROMERO
Federal Office for the Environment (FOEN)
Papiermühlestrasse 172
Berne
Switzerland
Tel.+41584626862
E-mail: Jose.romero@bafu.admin.ch

SYRIAN ARAB REPUBLIC
Sonia AFESA
Ministry of Local Administration and Environment
Syrian Arab Republic
Damascus
Syrian Arab Republic
Tel.+963112151572
E-mail: soniaafesa@yahoo.com

TAJIKISTAN
Nasimjon RAJABOV
Agency for Hydrometeorology, Committee for Environmental Protection
47 Shevchenko Street
Dushanbe
Tajikistan
Tel.+992372276181
E-mail: nasim.rajabov@gmail.com

THAILAND
Natthanich ASVAPOOSITKUL
60/1 Soi Pibunwattana 7, Rama VI Rd., Payathai,
22/14 Harmony Building Soi Pahon Yothin 11,
Pahon Yothin Rd, Payathai
Bangkok
Thailand
Tel.+662 265 6500 Ext. 6783
E-mail: natthan.asv@gmail.com

TOGO
Kokou SABI
Université de Lomé
BP: 1515 FDS-UL
Lome
Togo
Tel.+228 22 36 39 01
E-mail: sabikokou@yahoo.fr
UNITED STATES OF AMERICA

William (bill) Hohenstein
United States Department of Agriculture Office of Energy and Environmental Policy
US Department of Agriculture
Washington, DC
United States of America
Tel.: +202 720-6698
E-mail: whohenst@oce.usda.gov

Trigg Talley
U.S. Department of State, OES/EGC
2201 C St NW, Suite 2480
Washington
United States of America
Tel.:+1 202 647 3984
E-mail: talleyt@state.gov

Kim Carnahan
US Department of State
2201 C St NW
Washington, DC
United States of America
Tel.:+1 (202) 647 2764
E-mail: CarnahanKC@state.gov

Alice Alpert
US Department of State
2201 C St NW, Suite 2480
Washington
United States of America
E-mail: alperta@state.gov

Chris Dragisic
US Department of State, Office of Global Change
2201 C St NW
Washington, DC
United States of America
Tel.:(202) 736 7444
E-mail: DragisicCD@state.gov

URUGUAY

Virginia SENA
Div. Cambio Climático-MVOTMA
Zabala 1432, p.2
Montevideo
Uruguay
Tel.+59825060284
E-mail: vesena@hotmail.com

UZBEKISTAN

Olga Belorussova
The Centre of Hydrometeorological Service under the Ministry of Emergency Situations of the Republic of Uzbekistan (Uzhydromet)
Osiyo 15, Yunusobod distr., 100052
Tashkent
Uzbekistan
Tel.+998712373511
E-mail: uzhymet@meteo.uz

VENUEZUELA

Maria Teresa Dos Ramos Sanchez
Ministerio del Poder Popular para Relaciones Exteriores
Torre MRE, Carmelitas, Caracas
Caracas
Venezuela
Tel.+584125630678
E-mail: mariat.dosramos@yahoo.es

YEMEN

Abdulqader Alkharraz
Ministry of Water and Environment
Aden, khormaksar, 22 villa
Aden
Yemen
Tel.+967777479801
E-mail: k-ecc@hotmail.com

ZAMBIA

Carol Mwape Zulu
Ministry of Lands and Natural Resources
P.O. Box 50694 Lusaka
Lusaka
Zambia
Tel.+260211252589
E-mail: cmwapezulu@gmail.com

ZIMBABWE

Kudzai Faron Ndizano
Ministry of Environment, Water and Climate
11th Floor, Kaguvi Building, Cnr. S Muzenda Str/Central Ave
Harare
Zimbabwe
Tel.+878233893.7
E-mail: kudzie013@gmail.com
Elisha Nyikadzino MOYO
Climate Change Management Department
Ministry of Environment, Water and Climate, 11th Floor, Kaguvi Building, Corner 4th Street/Central Avenue,
Harare
Zimbabwe
Tel.+2634701681
E-mail: enmoyo@gmail.com

OBSERVER ORGANIZATIONS

AFRICAN UNION COMMISSION
Ayalneh Bogale GEBREYOHANNIS
Roosevelt Street, Addis Ababa
Addis Ababa
Ethiopia
Tel.+251 11 5182873
E-mail: AyalnehB@africa-union.org

EUROPEAN UNION
Zoltan RAKONCZAY
Rue du Champ de Mars 21
Brussels
Belgium
Tel.+32 229-57522
E-mail: Zoltan.RAKONCZAY@ec.europa.eu
Anastasios KENTARCHOS
Rue du Champ de Mars, 21
Brussels
Belgium
Tel.+32 229 86733
E-mail: anastasios.kentarchos@ec.europa.eu
Olivier JUVYNS
Avenue de Beaulieu 24
Brussels
Belgium
Tel.+32 2 2957286
E-mail: Olivier.JUVYNS@ec.europa.eu
Philippe TULKENS
Rue Champ de Mars 21
Brussels
Belgium
Tel.+32 229-86323
E-mail: Philippe.TULKENS@ec.europa.eu

Miles PERRY
Avenue de Beaulieu 24
Brussels
Belgium
Tel.+322964483
E-mail: miles.perry@ec.europa.eu

Ricardo FERNANDEZ
European Environment Agency
Kongens Nytorv 6, 1050 Copenhagen, Denmark
Brussels
Denmark
Tel.+45 33367270
E-mail: ricardo.fernandez@eea.europa.eu

CENTER FOR INTERNATIONAL FORESTRY RESEARCH (CIFOR)
Denis Jean SONWA
C/O IITA Humid Forest Ecoregional Center B.P. 2008, Yaounde, Cameroon
Yaounde
Cameroon
Tel.+237 698007673
E-mail: d.sonwa@cgiar.org
Kristell HERGOUALCH
CIFOR
CIFOR Hub, C/O Centro Internacional de la Papa (CIP), Av. La Molina 1895. La Molina
Lima
Peru
Tel.+51 (1) 349 6017
E-mail: k.hergoualch@cgiar.org

CLIMATE AND CLEAN AIR COALITION (CCAC)
Valentin FOLTESCU
Climate and Clean Air Coalition Secretariat - UN Environment
1 Rue Miollis
Paris
France
Tel.+33144371998
E-mail: Valentin.Foltescu@un.org
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

Martial BERNOUX
Food and Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
Rome
Italy
Tel.+39 0657052274
E-mail: martial.bernoux@fao.org

GERMANWATCH

Manfred TREBER
Germanwatch
Kaiserstr. 201
Bonn
Germany
Tel.+004922860492-14
E-mail: treber@germanwatch.org

GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)

Simon EGGLESTON
GCOS
avenue de la Paix, 7 Bis
Geneva
Switzerland
Tel.+41227308272
E-mail: seggleston@wmo.int

INTERNATIONAL PETROLEUM INDUSTRY ENVIRONMENTAL CONSERVATION ASSOCIATION (IPIECA)

Haroon KHESHGI
ExxonMobil Research and Engineering Company
Route 22 East
Annandale, NJ
United States of America
E-mail: haroon.s.kheshgi@exxonmobil.com

Peter RIGGS
Pivot Point, A Nonprofit Corporation
690 E Colonel Wright Rd.
Shelton WA 98584
United States of America
Tel.+1 360 426 0959
E-mail: peteriggspivotpoint@gmail.com

STOCKHOLM ENVIRONMENT INSTITUTE (SEI)

Diana LIVERMANN
UNIVERSITY OF ARIZONA
123 AAAAA
United States of America
Tel.+1 520 388 0190
E-mail: liverman@email.arizona.edu

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

Van Heek ALIKI
Vienna International Centre, PO Box 100, 1400
Vienna
Austria
Tel.+43 (1) 2600 26942
E-mail: A.vanHeek@iaea.org

ORGANIZATION OF PETROLEUM EXPORTING COUNTRIES (OPEC)

Eleni KADITI
OPEC
Helferstorferstrasse 17, A-1010
Vienna
Austria
Tel.+431211122204
E-mail: ekaditi@opec.org

RESEARCH AND DEVELOPMENT CENTRE, NEPAL

Tilak Bahadur MAGAR
Research and Development Centre, Nepal
Maitrinagar, 02 Kirtipur
Kathmandu
Nepal
Tel.+977 1 5154192
E-mail: tbmagar@rdcnepal.org.np

Ramdhyan Prasad YADAV
Research and Development Centre, Nepal
Maitrinagar, 02 Kirtipur
Kathmandu
Nepal
Tel.+977 1 5154192
E-mail: rdyadav@rdcnepal.org.np
UNITED NATIONS FOUNDATION

Monica Dean
United Nations Foundation
1750 Pennsylvania Avenue NW Suite 300
Washington DC
United States of America
Tel: +12028879040
E-mail: mdean@unfoundation.org

UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

Jian LIU
United Nations Environment Programme (UNEP)
P.O. Box 30552
Nairobi
Kenya
Tel.+254 20 7623251
E-mail: jian.liu@un.org

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

Iulian Florin VLADU
UNFCCC
Plaz der Vereinten Nationen 1, 53113
Bonn
Germany
Tel.+49 (228)815-1422
E-mail: fvladu@unfccc.int

WORLD METEOROLOGICAL ORGANIZATION (WMO)

Elena MANAENKOVA
WMO
7bis Av. de la Paix
1211 Geneva
Switzerland
Tel.+4122 730 8300
E-mail: emanaenkova@wmo.int

Douglas CRIPE
WMO
7bis Av. de la Paix
Geneva
Switzerland
E-mail: dcripe@geosec.org

Philip DECOLA
WMO
4600 Forbes Blvd.
Lanham, MD 20706
United States of America
Tel.+1 202 641 7178
E-mail: pdecola@umd.edu

TFI BUREAU MEMBERS

Kiyoto TANABE
TFI Co-chair
C/o Institute for Global Environmental Strategies (IGES)
2108-11 Kamiyamaguchi
Hayama, 240-0115
Japan
Tel.+81 46 855 3752
E-mail: tanabe@iges.or.jp

Eduardo CALVO
TFI Co-chair
Arteaga 549
San Borja
Lima
Peru
Tel.+511 3462299
E-mail: e13calvo@gmail.com

Dario Ruben GOMEZ
Comisión Nacional de Energía Atómica
Avenida General Paz 1499, (B1650KNA) San Martín
Buenos Aires
Argentina
Tel.+54 11 6772 7130
E-mail: dgomez@cnea.gov.ar

Robert George STURGISS
Department of the Environment and Energy
John Gorton Building, King Edward Terrace, 2600
Parkes ACT
Australia
Tel.+61 2 6159 7388 / 7613
E-mail: Rob.Sturgiss@environment.gov.au

Ghislain Hippolyte Sabin GUENDEHOU
Benin Centre for Scientific Research and Innovation, Laboratory of Applied Ecology of University of Abomey Calavi
'03 P.O.Box 1665 or 2048, BJ
Cotonou
Benin
Tel.+229 95 05 93 91
E-mail: sguendehou@yahoo.com

Dominique BLAIN
Environment and Climate Change Canada
351 boul St-Joseph, 7th floor office 7080, Gatineay (Qc) K1A 0H3
Gatineay, Quebec
Canada
Tel.+1 819 938 5237
E-mail: Dominique.Blain@canada.ca
Newton PACIORNKI
Private consultant
Rua Sao Clemente 272 ap. 501-l, 22260-004
Rio de Janeiro
Brazil
Tel.+55 21 25351266 / +55 21 981239043
E-mail: npaciornik@gmail.com

Marcelo THEOTO ROCHA
Fábrica Éthica Brasil
Av. Cassatella 177, Lote 7 C Jundiaí-, SP 13218-755
Sao Paulo
Brazil
Tel.+55 11 97110 3311
E-mail: marcelo.trocha@gmail.com

Yves PRAIRIE
Department of Biological Sciences, Université du Québec Montréal (UQAM)
Box 8888, succ. Centre-Ville, Montreal, Qc H3C 3P8
Montreal
Canada
Tel.+1 514 575 2306
E-mail: prairie.yves@uqam.ca

Werner Alexander Kurz
Natural Resources Canada, Canadian Forest Service
506 West Burnside Road, BC, V8Z 1M5
Victoria
Canada
Tel.+1 250 298 2310
E-mail: Werner.Kurz@Canada.ca

James Douglas MACDONALD
Environment and Climate Change Canada
351 St. Joseph Blvd., Gatineau, QC, K1A 0H3
Gatineau, Quebec
Canada
Tel.+1 819 938 5255
E-mail: Douglas.macdonald2@canada.ca

Marta Andrea Del Carmen ALFARO VALENZUELA
Instituto de Investigaciones Agropecuarias (INIA)
Ruta 5 norte km 8, 5290000, P.O. Box 24-O
Osorno
Chile
Tel.+56 64 2334837 / +56 9 89045741
E-mail: malfaro@inia.cl

Songli ZHU
Energy Research Institute, National Development and Reform Commission
B-1407, Guohong Building, A-11, MuxidiBeili,
Xicheng District, 00038
Beijing
China
Tel.+86 10 63908487 / +86 13718378789
E-mail: zhusongli@eri.org.cn

Bofeng Cai
Chinese Academy for Environmental Planning
8 Dayangfang, Beiyuan Rd., Chaoyang District, 100012
Beijing
China
Tel.+86 10 84919268
E-mail: caibf@caep.org.cn

Olga GAVRIVOVA
Tallinn University of Technology
Akadeemia tee 15, 12618
Tallinn
Estonia
Tel.+372 53803807
E-mail: oggavrilova@gmail.com

Anke Herold
Oeko-Institut
Schicklerstr. 5-7. DE 10179
Berlin
Germany
Tel.+49 30 405085386
E-mail: a.herold@oeko.de

Barbara Renate Amon
Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)
Max-Eyth-Allee 100, 14469
Potsdam
Germany
Tel.+49 331 5699 243 / +49 151 65117059
E-mail: bamon@atb-potsdam.de

Amit Garg
Indian Institute of Management Ahmedabad
Wing 16(B), IIMA Campus, Vastrapur, 380 015
Ahmedabad
India
Tel.+91 79 6632 4952
E-mail: amitgarg@iima.ac.in
Pavel SHERMANAU  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi  
Hayama, 240-0115  
Japan  
Tel.+81 46 855 3759  
E-mail: shermanau@iges.or.jp

Sekai NGARIZE  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi  
Hayama, 240-0115  
Japan  
Tel.+81 46 855 3756  
E-mail: ngarize@iges.or.jp

Sekai NGARIZE  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi  
Hayama, 240-0115  
Japan  
Tel.+81 46 855 3756  
E-mail: ngarize@iges.or.jp

Maya FUKUDA  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi  
Hayama, 240-0115  
Japan  
Tel.+81 46 855 3753  
E-mail: m-fukuda@iges.or.jp

Baasansuren JAMSRANJAV  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi  
Hayama, 240-0115  
Japan  
Tel.+81 46 855 3757  
E-mail: baasansuren@iges.or.jp

Sandro FEDERICI  
C/o Institute for Global Environmental Strategies (IGES)  
2108-11 Kamiyamaguchi, 240-0115  
Hayama  
San Marino  
Tel.+81 46 855 3754  
E-mail: sandro.federici@gmail.com

**IPCC SECRETARIAT**

Abdalah MOKSSIT  
Secretary IPCC  
7bis av. de la Paix  
Geneva  
Switzerland  
Tel.+41 22 730 8574  
E-mail: amokssit@wmo.int

Kerstin STENDAHL  
Deputy Secretary IPCC  
7bis Av. de la Paix  
Geneva 1211  
Switzerland  
Tel.+41 22 7308053  
E-mail: kstendahl@wmo.int

Sophie SCHLINGEMANN  
7bis Av. de la Paix  
1211 Geneva  
Switzerland  
Tel.+ 4122 730 8533  
E-mail: sschlingemann@wmo.int

Judith EWA  
7bis Avenue de la Paix  
Geneva  
Switzerland  
Tel.+ 4122 730 8087  
E-mail: jewa@wmo.int

Jonathan LYNN  
7bis Avenue de la Paix  
Geneva  
Switzerland  
Tel.+ 4122 730 8066  
E-mail: jlynn@wmo.int

Jesbin BAI DyA  
7bis Avenue de la Paix  
1211 Geneva  
Switzerland  
Tel.+4122 730 8516  
E-mail: jbaidy@wmo.int

Mxolisi E SHONGWE  
7bis Av. de la Paix  
1211 Geneva  
Switzerland  
Tel.+4122 730 8438  
E-mail: mshongwe@wmo.int

Werani ZABULA  
7bis Av. de la Paix  
1211 Geneva  
Switzerland  
Tel.+4122 730 8120  
E-mail: wzabula@wmo.int

Laura BIAGIONI  
7bis Av. de la Paix  
1211 Geneva  
Switzerland  
Tel.+4122 730 8522  
E-mail: lbiagioni@wmo.int

IPCC-L/Doc. 2, Rev.1, p.66