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**DRAFT REPORT OF THE FORTY-FIFTH SESSION OF THE IPCC**

**Guadalajara, Mexico, 28 – 31 March 2017**

(Submitted by the Secretary of the IPCC)

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## DRAFT REPORT OF THE FORTY-FIFTH SESSION OF THE IPCC

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### 1. OPENING OF THE SESSION

Mr Hoesung Lee, Chair of the Intergovernmental Panel on Climate Change (IPCC), called the Forty-Fifth Session of the IPCC to order on Monday 28 March 2017 at 10 am at the Hotel Fiesta Americana in Guadalajara, Jalisco, Mexico. The Chair of the IPCC welcomed the dignitaries and delegates and expressed gratitude to the Government of Mexico for hosting the meeting.

In his opening statement, the Chair of the IPCC underscored the urgency and gravity of the work of the IPCC. He noted that the recent *Statement on the State of the Global Climate* released by the World Meteorological Organization (WMO) confirmed that the year 2016 was the warmest on record. Global sea ice extent dropped more than 4 million square kilometers below average, an unprecedented anomaly, in November and in the High Arctic mean annual temperature of  $-0.1^{\circ}\text{C}$  was  $6.5^{\circ}$  above the 1961-1990 average. He underscored the need for science in a rapidly changing climate, to help understand the impacts of climate change, its risks, and options for addressing it.

He called on all member governments of the IPCC to continue to invest in scientific research that targets the knowledge gaps highlighted in the Fifth Assessment Report and is oriented to the needs of society. He reminded delegates that the 45<sup>th</sup> Session of the IPCC (IPCC-45) would be reviewing its resource mobilization strategy and urged governments and others to consider ways of supporting the work of the IPCC. He noted that the 45<sup>th</sup> Session of the Panel would consider the outlines of two special reports whose themes are highly policy-relevant: the Special Report on climate change and oceans and the cryosphere, and the Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. The draft outlines had been established during scoping meetings in Monaco and Dublin respectively.

The Chair of the IPCC concluded his opening remarks by expressing a hope that the meeting would be conducted in an ambiance of collegiality, cooperation and compromise and wished the participants fruitful and productive discussions as he declared the 45<sup>th</sup> Session of the IPCC open.

Ms Elena Manaenkova, Deputy Secretary-General of the WMO), expressed appreciation and gratitude to the Government of Mexico for hosting the 45<sup>th</sup> Session of the IPCC.

She noted the key role that the IPCC plays in supporting national and international policy formulation on climate-related issues through its high quality assessments and that WMO Members and National Meteorological and Hydrological Services (NMHSs) play a key role in the work of the IPCC, noting that 33 per cent of national IPCC focal points are NMHSs. She said that upon request of the Executive Council, the Secretary-General of WMO is further promoting the active participation of WMO technical, scientific and co-sponsored programmes and NMHSs in the preparation of products of the IPCC Sixth Assessment Report.

Ms Manaenkova recalled that the WMO Executive Council, at its sixty-eighth session, noted that the level of contributions and the number of contributors to the IPCC Trust Fund are steadily declining and that there is a need to mobilize additional resources to ensure the successful completion of activities and products planned for the Sixth Assessment Report cycle. To this end, the Secretary-General of WMO, jointly with the Executive Director of UN Environment, sent a letter to all Members at the highest levels, inviting them to increase their level of contributions to the IPCC Trust Fund or to make a contribution in case they have not

yet done so. She said that the two special reports to be approved at the meeting reinforce the IPCC's role as the developer of policy-relevant assessments of the highest quality.

Ms Manaenkova concluded by noting that the WMO remains committed to assist IPCC in delivering its work programme, including through financial, administrative and operational support.

Mr Miguel Ruiz Cabanas Izquierdo, representative of the Ministry for Foreign Affairs of Mexico expressed gratitude to the IPCC for the invitation and to the government of Jalisco for organizing the meeting. He said that climate change is undeniable, and noted the serious impact felt in Peru recently, leading to loss of life and property. He noted the impact of climate change on food security. Governments are committed to the implementation of the Paris Agreement, and Mexico is increasing action to this end, with key actors. He appealed to the international community to support the IPCC and noted that the implementation of the Paris Agreement requires strengthened multilateral collaboration. States must defend multilateralism and the United Nations to the benefit of shared ecosystems.

Mr Ibrahim Thiaw, the Deputy Executive Director of the United Nations Environment Programme expressed his gratitude to the Government of Mexico for hosting the meeting. He noted the immense threat to ecosystems from climate change, specifically to marine ecosystems and the long-term detrimental effects that global warming will have. Climate change impacts the vital foundations of life, the food chain, the economy and security. Climate change coupled with population growth, water stress and erosion of arable land will lead to immigration and climate change refugees. He noted that these are just a few symptoms of a bigger problem, referencing WMO's data on 2016 being the warmest on record and equally alarming records for sea temperatures, Arctic sea-ice and carbon dioxide.

He pointed to the avenues for solutions - the Paris Agreement and the 2030 Agenda for Sustainable Development. IPCC is part of the tools at our disposal, he said, along with the United Nations Framework on Climate Change (UNFCCC) and a growing green economy. The degree to which both public and private stakeholders have committed to the Paris Agreement is unprecedented and the momentum unstoppable.

Mr Thiaw concluded by saying that there are three clear steps that need to be taken. First, there is a need for more scientific findings that are accessible to policy makers, the private sector and the general public. Second, more of such leadership as exhibited by Mexico is needed to strengthen and accelerate the impact of the science-policy interface. Third, the work UN Environment as a co-host of the IPCC must deliver to ensure that the IPCC succeeds in its work. This includes using the convening power and communication outreach of United Nations Environment Programme (UNEP) to get robust science to the right people as quickly and easily as possible using facilities like the IPCC Library, building capacity in developing countries, using global collaborating centers like the Climate Technology Center and Network or the newly established Global Adaptation Centre in Rotterdam. It also entails strengthening collaboration around the Global Environment Outlook, which covers climate change and the wider issues underpinning sustainable development.

Ms Patricia Espinosa, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC), communicated her message via video. She welcomed the participants and expressed gratitude to the IPCC and the government of Mexico. She noted that with the entry into force of the Paris Agreement, the era of implementation has begun which is why the IPCC is needed more than ever. She said that science made the Paris Agreement and now plays a key role in its implementation, so as to restore climate neutrality and limit global temperature rise to below 2 degrees and close to 1.5 degrees C. The work of the IPCC will link to the nationally determined contributions and to the global stocktake as it assesses best available science. Evidence-based decision-making is needed for the implementation of the Paris Agreement and achieving the Sustainable Development Goals.

His Excellency Mr Rafael Pacino Alaman, Minister of Natural Resources and Environment of Mexico, on behalf of President Enrique Peña Nieto, welcomed participants to Mexico and noted that climate change is of highest priority to President Peña Nieto's government. He noted Mexico's unconditional commitment to the climate change agenda by reducing its global greenhouse emissions by 22% and black carbon by 50% by 2030 through market-based and legislative action that Mexico is undertaking to achieve this.

His Excellency Mr Jorge Aristoteles Sandoval Diaz, Governor of Jalisco noted the absolute importance of science for informed decision-making. He noted one government's reluctance to commit to the climate change agenda and said that it is of vital importance that IPCC's work is supported and recognized. He said that Jalisco would support the recommendations of the IPCC and scientific community. It is instrumental for a country like Mexico to do so.

The Chair of the IPCC introduced the provisional agenda as contained in document [IPCC XLV/Doc.1](#).

New Zealand, Saudi Arabia, France, United Kingdom, Norway with Mexico and Chile made interventions. Based on the discussions it was agreed that the AR6 Scoping process would be discussed under item 5.2 Strategic Planning Schedule, that the Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems (SRCCL) be discussed before the Special Report on Climate Change and Oceans and the Cryosphere (SROCC), that the alignment of the global stocktake under UNFCCC with the IPCC, the IPCC library facility and short-lived climate forcers be discussed under agenda item 8 Any other business. Plenary agreed to adopt the agenda with these amendments.

## **2. APPROVAL OF THE DRAFT REPORT OF THE 44<sup>TH</sup> SESSION OF THE IPCC**

The draft report of the 44<sup>th</sup> Session of the IPCC as contained in document [IPCC-XLV/Doc.5](#) was presented and approved without changes.

## **3. IPCC TRUST FUND PROGRAMME AND BUDGET**

The Chair of the IPCC opened the Agenda Item 3.2 on Resource Mobilization, which had three sub-items. Judith Ewa, Programme Officer, introduced the document [IPCC-XLV/Doc. 3](#) on the Resource Mobilization Strategy. The following Member countries took the floor: Bahamas, Belgium, Brazil, France, Germany, Hungary, Indonesia, Italy, Japan, Republic of Korea, Mali, Morocco, Nicaragua, Norway, Poland, Saudi Arabia, Senegal, South Africa, Sweden, Switzerland, Trinidad and Tobago, United Kingdom and Zambia. All countries that made interventions thanked the Government of Mexico for its hospitality and for hosting the meeting.

The delegations that took the floor thanked the Secretariat for the document on resource mobilization strategy. Clarification was sought by one delegation and provided by the Secretariat regarding page 5 of the document, which referred to the table on the Action Plan. Several delegations acknowledged that governments resource the IPCC and cautioned that great care should be taken when approaching the private sector. Sweden announced it would maintain its yearly contribution to the Trust Fund and will increase its contribution to CHF 110,000 with an additional contribution of SEK 2 million. Japan also confirmed that it would continue its contribution to the IPCC Trust Fund. It was important for other countries to contribute, however, when promoting the resource mobilization work, it would request the Secretariat to provide a report on the impacts in 2018. If no financial resources are received the Secretariat should examine which activities can be postponed or cancelled. This type of information will be crucial to encourage potential donors in the future. France indicated that it would increase its contribution to assist the Technical Support Unit (TSU).

France requested information on (1) the outcome/impact of the meetings with governments, (2) pathways and (3) crowdfunding. Reference was made to IPCC-XLV/Doc.3, page 3, *"In an effort to broaden its funding base and obtain additional funding, the IPCC will explore the possibility of establishing partnerships with UN agencies, funds and programmes, international financial institutions such as the World Bank, regional development banks, regional economic and political unions, civil society and philanthropic foundations.* It was indicated by one delegation that this approach was not agreed to. . Many member countries supported that governments should be the most important donors to continue to contribute to the IPCC in order to maintain its integrity.

Reference was made to the IPCC's Conflict of Interest (COI) policy suggesting that such a policy could also be considered for potential donors. To this end, it was proposed to develop a donor policy for resource mobilization. Another delegation proposed that the IPCC find ways to deal with the current financial situation by (1) earmarking contributions to enhance flexibility, (2) tapping into financial institutions as means of cooperation to solve the financial problems and by communicating with the Global Environment Facility (GEF) Green Climate Fund (GCF) and (3) being flexible in understanding resources by providing an opportunity to everyone to give, e.g. multilateral development banks and multilateral institutions.

It was further urged by some delegations that the door be opened for others to do good by contributing to the IPCC. It was reiterated that the IPCC is an intergovernmental organization and should be funded by governments. With regard to the United Nations Framework Convention on Climate Change (UNFCCC), the IPCC encouraged countries to contact their respective UNFCCC negotiators to defend the budget line of the IPCC so it can be maintained by the UNFCCC.

Concerns were expressed by several delegations about partnerships and requests were made that the organisations being considered should be screened very well. With regard to the estimation of the budget, the IPCC could perhaps look into reducing the duration of meetings and hold them back-to-back. Further support was given to holding Bureau meetings without interpretation.

The Chair of the IPCC and the Secretariat were commended by several delegations for their efforts working towards ensuring sufficient funding is obtained, recognizing that it is difficult to ensure predictable and sufficient funding for the work the Plenary decides to carry out. Reference was made to Appendix B to the Principles Governing IPCC Work - Financial Procedures for the Intergovernmental Panel on Climate Change (IPCC), paragraphs 15 (e) and 15 (e)-bis, as a fair way of ensuring all members of the IPCC contribute by considering an indicative scale of contributions (assessed contributions).

The Member countries were likened, by one delegation, to being members of a club where one is expected to contribute one's share. Participating in the IPCC benefits its member countries as the products of the IPCC have value. This value was recognized when the IPCC was awarded of the Nobel Prize.

Morocco informed the Plenary that it would be making its first contribution to the IPCC Trust Fund in 2017. In addition, an in-kind contribution would be made as it plans to hold a seminar for media, policymakers, etc. in a move to bring awareness on the work of the IPCC and support the IPCC towards achieving its goals.

It was felt by one delegation that resource mobilization should be fair and reported on. Resource mobilization from external sources should not interfere with the integrity of the IPCC. There was a view that that as an intergovernmental body, the IPCC should be supported by governments and possibly philanthropic organizations but these external sources should represent a small proportion of donors. In addition, great care should be taken to safeguard the integrity of the IPCC. The resource mobilization campaign is already being implemented and there were requests from several delegations that an update is needed regarding the visits to Ambassadors. Other options for resource mobilization need to be

explored if the resource mobilization campaign is not successful. There was a need to understand what economies would be made and how to deal with them.

Since 1990, the IPCC has provided several valuable reports and the integrity of the IPCC needs to be preserved. Norway indicated that it supports the IPCC and will continue to do so. A decision needs to be taken on where to draw the line and know what is acceptable with regard to who can contribute to the IPCC like UN organizations e.g. UNFCCC, UNEP and WMO as well as other contributors. Several interventions made supported the Action Plan and were not opposed to governments making contributions but cautioned that we need to keep in mind that most countries e.g. Small Island Developing States (SIDS) are plagued by tropical cyclones and therefore have to reassign resources to other priorities, in the event of a disaster caused by cyclones. One delegation indicated that SIDS are facing challenges and care should be taken so as not to turn the donors to the IPCC into an exclusive club. The integrity of the IPCC should be maintained while offering broad participation. Some delegations expressed concern about earmarking of funds. Caution was requested, when embarking on the resource mobilization campaign, to ensure that funds are not coming in as earmarked. It was felt that there is a need to strike the right balance – funds mobilized should be channelled into the Trust Fund so that it can be used for the programme of work of the IPCC. With regard to partnering with UN organizations, financial institutions, etc. the IPCC should take caution against contributions being used to determine participation as not all developing countries can contribute.

The Secretariat was encouraged to explore options for long-term stabilizing/financing independent changes in the financial situation and budgetary spending in order to ensure the financial health of the IPCC. Attention was drawn to the discrepancy in the forecast budget and actual expenditures where expenditures were always lower than the forecast budget. Clarification was requested to determine to what extent this perpetual trend has been taking place for many years where 50%-70% yearly budget is primarily related to journeys for meetings. It was suggested to limit journeys in the longer term on the programme of work. A proposal was made, by one delegation and seconded by other delegations, to set up a group to discuss issues such as types of donors, clarity of the budget and availability of a communication specialist, and maintaining the integrity of the IPCC, etc. The Chair of the IPCC confirmed that the Secretariat would pursue all avenues. Further suggestions from the floor were made on how to obtain savings, namely: (1) consideration should also be given to the delivery of budget items and the quality of IPCC's work e.g., holding of Plenary and Bureau meetings back-to-back should be evaluated, (2) supports the point made by Indonesia about holding Bureau meetings without interpretation. It was proposed that the Secretariat conduct a survey to see if the government representatives can forego interpretation. One delegation reiterated that contributions by Member countries should not be linked to participation in IPCC meetings.

The Chair of the IPCC endorsed the proposal to set up an Ad Hoc Task Group on the Financial Stability (ATG-Finance) and suggested that Ms Thelma Krug, and Mr Youba Sokona chair it, which would be open-ended. The Chair of the IPCC requested interested delegations to meet during the session and present draft Terms of Reference (TOR) for the ATG-Finance.

Ms Ewa then introduced the document [IPCC-XLVI/Doc. 8](#) on Resource Mobilization – IPCC Partnership Policy and Procedures. Germany proposed that the newly created ATG-Finance should address this topic. France and Sweden agreed with Germany's proposal. The Chair of the IPCC announced that the newly created ATG-Finance would consider the document.

The Agenda item on Resource Mobilization - Status on the Implementation of Planned Activities was introduced by the Secretary of the IPCC, Mr Abdalah Mokssit. The Chair of the IPCC expressed his sincere gratitude to Member countries who have contributed to the Trust Fund. He encouraged Member countries to continue to contribute to the work of the IPCC. The following Member countries took the floor: Belgium, Canada, Japan, Mali, Switzerland, and Sudan. The delegations thanked the Secretary of the IPCC for his passionate

presentation and the Secretariat for providing the informative document. Reference was made to Annex 2 of the presentation and one delegation pointed out that that with such a figure showing as the cash balance it would be difficult to convince their capitals of the need to make a contribution. It was incumbent on all member countries to make a contribution. It is imperative for countries to contribute in order to the IPCC to deliver its products. It was felt that Resource Mobilization is very important for the continuation of the activities of the IPCC. Member countries should try to support the activities of the IPCC. Mali announced its first contribution to the IPCC although they are facing many of the adverse impacts of climate change still acknowledging its responsibility to contribute to the IPCC. The outcome of the AR6 is important as mentioned during the 53<sup>rd</sup> Session of the IPCC Bureau. The outreach event that took place in Mali (1-2 June 2016) was very useful as it brought together scientists, parliamentarians, etc. that is why, even with its modest resources, Mali will continue to contribute to the IPCC for the years to come. The Chair of the IPCC thanked Mali for having made its pledge and ensured it that the IPCC will do its best to produce an objective assessment of the scientific information. One delegation indicated that based on the presentation, 23 countries contributed in 2016. It felt that we cannot rely on a restricted number of contributors. The United Nations (UN) indicative scale can be used as a safety net where a minimum of 0.02% is assessed for developing countries and a maximum of 20%-22% is applied to developed countries. UNFCCC was cited as an example where every country has to contribute its fair share. The IPCC may need to consider the private sector but care should be given as to whom to partner with. Governments have to sustain this resource mobilization. One way to do this is to review Appendix B to the Principles Governing IPCC Work - Financial Procedures for the Intergovernmental Panel on Climate Change (IPCC), paragraphs 15 (e) 15 (e)-bis, presented in [Appendix B](#) to the Principles Governing IPCC Work. If no financial stability is sought and resource mobilization is not maintained then it will be difficult to sustain IPCC's work. It was recommended that the newly-created ATG-Finance look into the elements of resource mobilization accompanied by various solutions/options. Other areas for resource mobilization needs to be seriously considered, e.g. the private sector. The Chair of the IPCC thanked all the delegations for their comments and advice and added that the Secretariat would incorporate this in the meeting report. The IPCC took note of the document.

The Chair of the IPCC opened the Agenda Item 3.1 on IPCC Programme and Budget – Budget for the years 2017, 2018, 2019 and 2020. Ms Ewa introduced the document [IPCC-XLV/Doc. 2](#). This document and other financial issues were addressed by The Financial Task Team (FiTT). 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 FiTT met four times during the week to deliberate on key issues relating to the IPCC programme and budget, including the revised budget for 2017, the forecast budget for 2018 and the indicative budgets for 2019 and 2020. Belgium made reference to IPCC-XLV/Doc.2, page 8, where the Secretariat budget line shows a large amount. It requested to see a breakdown of this budget line in the FiTT meeting. The Chair of the IPCC instructed the FiTT to report back to Panel with its recommendations on Thursday, 30 March 2017.

The Chair of the IPCC opened the Agenda Item 3.3 on IPCC Programme and Budget – Proposals for Decreasing Travel Expenditures. Ms Ewa introduced the Agenda Item. The IPCC took note of the document.

Ms Helen Plume, on behalf of her Co-Chair, submitted recommendations from the FiTT to the Panel. She thanked the members of the FiTT for their participation over the past 3 days. Brazil thanked the FiTT members and sought clarification of the amount for resource mobilization budget line, which had been reduced from CHF 47,000 to CHF 15,800. Ms Helen Plume explained that the amount had been spread across the three years in Phase I of the Resource Mobilization Strategy Action Plan i.e. 2017-2019. Sweden pointed out a correction to be made in the 2018 budget table.



The IPCC approved the revised budget for 2017 and noted the proposed 2018, forecast 2019 budget and the indicative budget for 2020 and adopted Decision IPCC-XLV-3 regarding the IPCC Trust Fund and Programme as contained in **Annex 1**.

#### **4. ADMISSION OF OBSERVER ORGANIZATIONS**

Legal Officer Ms Sophie Schlingemann introduced document [IPCC-XLV/Doc. 10](#) related to this topic and noted that since the 44<sup>th</sup> Session (Bangkok, Thailand, 17-20 October 2016) 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 53<sup>rd</sup> Session (Guadalajara, Mexico, 26-27 March 2017). Subsequently the Panel admitted by consensus the following eight organizations as observers to the IPCC: the African, Caribbean and Pacific Group of States (ACP), the International Social Science Council (ISSC), the International Energy Agency (IEA), SILVA, Arbres, Forêts et Sociétés, the Global Research Alliance on Agricultural Greenhouse Gases (GRA), the American Psychological Association (APA), the Indian Institute for Human Settlements (IIHS), and the Carnegie Council.

#### **5. REPORTS**

##### **5.1 Communication and outreach**

Senior Communications Manager, Mr Jonathan Lynn, presented the report on communication and outreach activities (document [IPCC-XLV/INF.1](#)). From the report, he highlighted the large number of activities undertaken at the 22<sup>nd</sup> Conference of the Parties (COP22) to the United Nations Framework Convention on Climate Change (UNFCCC) in Marrakech on 7-18 November 2016, the outreach event held in Hanoi, Vietnam, on 24-25 October, immediately following the 44<sup>th</sup> Session in Bangkok, and the regional outreach event for the Caribbean, held in Kingston, Jamaica, on 30 November-1 December, and attended by participants from small island states all over the region.

Mr Lynn mentioned several outreach activities that have taken place since the report was circulated. In Dublin, during the scoping meeting in February 2017 for the special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, Ms Valerie Masson-Delmotte, Co-Chair of Working Group I, addressed students at University College Dublin, and the Chair of the IPCC was a guest speaker at the Irish Institute for International and European Affairs.

At the end of February, the Chair of the IPCC was a keynote speaker at International Petroleum Week in London, organized by the Energy Institute of which Mr Jim Skea, Co-Chair of Working Group III, is currently president. Mr Skea also moderated two sessions and gave a presentation.

On 23 March the Chair of the IPCC gave a keynote speech to a high-level event on climate change and the sustainable development agenda at United Nations headquarters in New York. He also met the UN Secretary-General. A broad programme of outreach activities in Guadalajara preceded the 45<sup>th</sup> Session of the IPCC on 25-27 March, reaching local stakeholders from the policymaking, business, research and student communities and the media. An additional 5,400 viewers besides the 50 journalists attending in person viewed the live-streamed media workshop; about 700 participants attended a series of presentations to students and the academic community.

Mr Lynn noted that the outreach programme, made possible by contributions from several countries, enabled the IPCC to bring in participants from around the country or from neighboring countries, ensuring a bigger impact than otherwise. In 2018 the outreach programme is still operating on a generous donation from Norway. Demand for outreach



activities is likely to continue and increase with the release of the special reports starting next year.

Mr Lynn also described the guidance document for climate scientists who make their own graphics and illustrations that Norway is developing. The Secretariat and Technical Support Units have given feedback on making this useful for IPCC authors. The document, being developed by the Tyndall Centre for Climate Change Research at the University of East Anglia, aims to provide science-based advice on improving readability and understanding of graphics, while maintaining scientific integrity.

The Chair of the IPCC welcomed the IPCC's strong outreach programme, thanked Norway for its generous contribution, and urged member governments to contribute to the programme's funding needs. The Panel took note of the report.

## **5.2 IPCC carbon footprint**

IPCC Programme Officer Mxolisi Shongwe introduced document [IPCC-XLV/Doc. 4, Rev. 1](#). He noted that the document contained proposals for the IPCC to work together with the Environment Management Group (EMG) and join the Issue Management Group (IMG) on Environmental Sustainability Management to contribute to the implementation and moving towards a climate-neutral United Nations, to bundle missions and arrange back-to-back meetings so as to cover more than one meeting or objectives in a single air ticket, particularly for long-haul travel, and to hold teleconferences instead of face-to-face meetings whenever necessary and feasible. He acknowledged helpful suggestions from the 53<sup>rd</sup> Session of the IPCC Bureau which will be taken into consideration moving forward, such as carrying out an independent inventory of the IPCC to identify sources and trends of emissions. Germany suggested that reducing the IPCC carbon footprint should not compromise core activities.

The proposals on reducing the IPCC Carbon footprint including comments on the suggestions provided in Doc.4 were noted by the Panel.

## **5.3 Future of the Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA)**

Mr Timothy Carter, TGICA Co-Chair presented the progress report on the activities of the Task Group and the Data Distribution Centre (DDC) since the last reporting at the 42<sup>nd</sup> Session of the IPCC (document [IPCC-XLV/INF.4,Rev.1](#)). Two full meetings and two teleconferences had been held. TGICA-23, which was attended by fifteen members and four joining remotely, was held in Cape Town, South Africa in October 2015, arranged by the University of Cape Town and supported by the government of South Africa. TGICA-24, which was attended by nineteen TGICA members and three who joined remotely, was hosted by the Finnish Environment Institute, Helsinki, Finland in July 2016 and was supported by the Government of Finland. Salient activities carried out by the Task Group included: 1) a factsheet on CMIP5<sup>1</sup> data provided at the DDC, available on the DDC website; 2) tracing background references and data underlying a large figure on observed impacts from Working Group II AR5; 3) a DDC user survey. The resulting report is posted on the DDC website; 4) a meeting in May 2016, attended by TGICA Co-Chairs, DDC Managers, and representatives of the CORDEX<sup>2</sup> and WCRP<sup>3</sup> to discuss management of CORDEX data and possible future joint collaborations; 5) convening and participating in the Expert Meeting on TGICA held in Geneva, Switzerland in January 2016; 6) preparation of documents requested by the Panel on the future of TGICA; and 7) computing statistics of data downloads from the DDC which show sustained high demand for data.

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<sup>1</sup> Coupled Model Intercomparison Project Phase 6

<sup>2</sup> Coordinated Regional Climate Downscaling Experiment

<sup>3</sup> World Climate Research Programme

Priority tasks which TGICA aims to carry out before the 46<sup>th</sup> Session of the IPCC include: 1) drafting general guidelines on the use of scenario data for climate impacts and adaptation assessment; 2) preparing a factsheet on downscaling climate information; 3) archiving DDC pages relating to the scenario process for AR5 and developing new pages ahead of the AR6; and 4) convening a full meeting (TGICA-25) around June/July 2017.

Mr Edvin Aldrian, Co-Chair of the Ad-hoc Task Force on the future of TGICA (ATF-TGICA) presented their progress report (document [IPCC-XLV/INF.5](#)). He informed the Panel that the scope of implementing the tasks assigned to the ATF-TGICA will include a mapping exercise to evaluate the potential overlap and relevance of other products compared to those of TGICA and the DDC, to identify remaining gaps and potential partnerships. The Task Force will refine priorities and develop a short-term strategy and long-term vision for the transformed TGICA functionalities and the functions of the DDC, and propose options for sustainable resourcing to support the transformed functions including possible ways to expand country contributions. The new strategy should ensure continuity, transparency, accessibility and integration across Working Groups of emerging support for data and scenarios. Mr Aldrian informed the Panel that sixty-three responses to the questionnaire which was sent to IPCC Focal Points and to interviewees (Working Group Co-Chairs, TSU Heads and selected AR5 authors) have been received. The analysis of the responses is ongoing and the results will be presented at the 46<sup>th</sup> Session of the IPCC.

Swaziland, supported by Kenya and South Africa, expressed their concern as to whether the work of the Task Force was truly a member-driven process. He noted that all members were in agreement as to the means by which the interviews were conducted. The lack of a visible participation by the developing country Co-Chair was also cited as a source of concern. Swaziland requested the Panel's intervention to bring the mandate back to the members. In response, Mr Edvin Aldrian noted that there is indeed an unbalanced participation in the process and supported by Kenya and South Africa, urged developing country members to become more active. Mr Andreas Fischlin responded that the Co-Chairs have made every effort to be as inclusive as possible. Zambia expressed concern that some of the ATF-TGICA members were not in agreement with the report as presented by the Co-Chairs and inquired how the responses solicited through Focal Points and interviewees would be weighted during the analysis.

Germany as a member of the Task Force noted her perception that the Task Force worked as a team and urged those members to express their concerns to bring forth such misgivings during the meeting to be held during the IPCC-45 so as to find means to overcome the difficulties.

The Panel took note of the reports.

#### **5.4 Strategic Planning Schedule**

IPCC Deputy Secretary, Ms Kerstin Stendahl presented the revised Strategic Planning Schedule (document [IPCC-XLV/INF.8](#)). She noted that it integrated comments provided at IPCC-44 regarding plenary agendas and intervals between plenary meetings, special reports sessions, lead author meetings, overlapping meetings in 2021 and the requests for coherence with the global stocktake under the Paris Agreement.

The Following members took the floor: Germany, supported by Luxembourg and China, Working Group I, Working Group II and Working Group III Co-Chairs, the United States of America, Norway, SSC Chair and IPCC Vice-Chair Ms Thelma Krug, Denmark, Switzerland, Niger, and El Salvador, Brazil, supported by Saudi Arabia, Gabon, Maldives, India, Venezuela, the United Republic of Tanzania, Zambia and Malaysia, China, supported by New Zealand, France, Togo, Ireland, Norway, Colombia, Senegal

Many of the interventions highlighted the need to revise the Strategic Planning Schedule further. In the interventions requests were made to extend the period from two to three weeks between IPCC-50 and IPCC-51, the two special reports, the Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC), and the *Special Report on Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* (SRCCL) approval sessions. A proposal was made to move the second SRCCL lead author meeting back by one week so as to be back to back with the Special Report on Global Warming of 1.5°C lead author meeting, a question was asked what was to be discussed during the plenary sessions in 2019, 2020 and 2021. On delegation requested that one of the IPCC plenaries in 2019 address the outcomes of the second scoping meeting on the Synthesis Report (SYR). A seven, instead of an eight-week government review period was proposed so as to allow the authors a six-week period to write the report. Many governments insisted that eight weeks for review was needed, given that the reports require translation and warrant a thorough review. Many called for flexibility on the matter. Some governments suggested providing the Panel with regular progress reports from the WGs and the TFI as a standing agenda item as in the past.

The Chair of the IPCC noted that the documents from the Sixth Assessment Report (AR6) Scoping meeting in Addis Ababa first week of May would be approved during IPCC-46. The deliberations during the AR6 Scoping meeting will be based on the Chair's vision paper; comments from members and observer organizations; scoping meeting guidelines; and responses received from governments.

The IPCC agreed that the Secretariat would revise the Strategic Planning Schedule and make it available in good time before IPCC-46.

## **6. SIXTH ASSESSMENT REPORT (AR6) PRODUCTS**

### **6.1 Outline of the Special Report on climate change, oceans and the cryosphere**

Ms Ko Barrett, IPCC Vice-Chair and Chair of the Scientific Steering Committee (SSC) in introducing the agenda item (documents [IPCC-XLV/Doc. 6](#); [IPCC-XLV/INF. 2](#)) highlighted the composition of the SSC, nomination and selection of participants, and preparatory steps for the Scoping Meeting which was held in Monte Carlo, Monaco from 6 – 9 December 2016. She thanked the Government of Monaco and the Prince Albert II of Monaco Foundation for their support. Ms Barrett reported that the proposed outline for the Special Report with six chapters was produced in a dynamic and additive manner which ensured transparency, inclusivity and consensus. The proposed chapter outline structure which follows the flow of water from Polar and high mountain areas down to the ocean comprise six chapters: 1) Framing and context; 2) High mountain areas; 3) Polar regions; 4) Sea-level rise and Implications for Coasts and Communities; 5) Changing Ocean, Marine Ecosystems, and Dependent Communities; and 6) Extremes, Abrupt Changes and Managing Risks. These chapters are envisaged to be complemented by case studies, Frequently Asked Questions (FAQs) and boxes, including a cross-chapter box on low lying islands and coasts. Participants at the Scoping meeting agreed that a concise title of the Special Report would be "IPCC Special Report on the Ocean and Cryosphere in a Changing Climate", abbreviated as SROCC. The 53<sup>rd</sup> Session of the IPCC Bureau endorsed the outline.

During the ensuing discussion, Germany suggested that the chapter on mountains be swapped with the chapter on changing ocean and marine ecosystems, or that a narrative presenting the rationale for the chapter sequence could be included, a suggestion which was supported by Belgium and Luxembourg.

On the Framing and context chapter, Switzerland proposed that legal and governance issues be addressed in the framing and noted that indigenous and local knowledge is dealt with in IPBES<sup>4</sup>. There is little separate treatment of the understanding of changes within the ocean due to climate change and within the cryosphere, and physical and biogeochemical role of the ocean and cryosphere on the greater climate.

With regards to the chapter on High mountain areas, Pakistan recommended that recognition should be given to the “third pole” north of the Indian subcontinent. Ecuador suggested the inclusion of the Andes in the SROCC. Belgium proposed that the chapter title be revised to explicitly mention the high mountain cryosphere. India suggested that this chapter could be allocated more pages and should make relevant reference to Himalayan ecosystems and incorporate glacial dynamics.

On the Polar regions chapter, Canada suggested that consideration be given to snow, permafrost and fresh water ice. The Republic of Korea, supported by Saint Lucia suggested reference to extremes in the Arctic and their link to midlatitude marine environment ecosystems and fisheries in coastal and offshore waters. Norway suggested consideration of how changes in the Polar Regions affect changes in other parts of the world. United Kingdom, supported by WWF<sup>5</sup> recommended that all climate feedbacks should be included during the preparation of the SROCC and suggested the inclusion of Antarctic glaciers. WWF suggested the explicit consideration of implication of cryosphere change for natural ecosystems, habitability and community livelihoods. Japan suggested that consideration be given to the treatment of glacier mass loss and sea-level change, the long-term variability of GHGs in the climate system provided by Earth System Models and possible reference to tipping elements and irreversibility.

On Chapter 4, Sea-level rise and Implications for Coasts and Communities, Canada proposed that coastal erosion and inundation be addressed in the context of sea-level rise. The Republic of Korea recommended that the impact of abrupt melting in the polar regions on sea-level rise in Small Islands States and low latitude regions be emphasized across all chapters. The Maldives, supported by Bahamas, Dominica, Grenada, Indonesia, Jamaica, Micronesia, and Singapore proposed that the chapter title should explicitly mention SIDS<sup>6</sup> and low-lying coastal areas. China suggested that consideration be given to the impacts of melting glaciers on disasters and long-term risks in coastal areas. Japan endorsed the chapter title as originally presented and proposed that a bullet be included in the outline to address the specific request made by SIDS. Belgium suggested that the cross-chapter box on low-lying Islands and coasts be moved to this chapter. The Philippines suggested that multi-disciplinary scientific perspectives be considered in the cross-chapter box which discusses adaptation options. Egypt proposed an assessment of the costs of adaptation.

Regarding the Chapter on Changing Ocean, Marine Ecosystems, and Dependent Communities, Canada inquired about how ocean acidification will be reconciled with Chapter 3. The Republic of Korea recommended that the impact of climate change on fisheries be thoroughly addressed in the SROCC to provide vital information for sustainable fisheries resource management and food security. Saudi Arabia, supported by Chile suggested highlighting geoengineering, carbon capture under the sea, ocean fertilization and blue carbon. Saint Lucia supported by Dominica, Jamaica, Germany and Luxembourg preferred an assessment of nature-based solutions instead of an explicit reference to blue carbon. The United States of America supported by Spain and the United Kingdom opined that a comprehensive coverage of geoengineering is more appropriate in the main AR6 report. The United Kingdom suggested the inclusion of mobilization of pollutants in shelf sea sediments resulting from ocean acidification. Belgium suggested that topics related to migration of species in the ocean should be adequately addressed in the SROCC. India suggested the consideration of impacts on biodiversity in oceans beyond national boundaries. Japan

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<sup>4</sup> Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

<sup>5</sup> World Wildlife Fund International

<sup>6</sup> Small Island Developing States

suggested that consideration be given to the importance of projection and diagnosis of global climate change by atmosphere-ocean coupled climate models, taking into consideration paleoclimate perspectives and reduction of uncertainty in the process of ocean heat uptake.

On the Extremes, Abrupt Changes and Managing Risks chapter, Saint Lucia supported by Bahamas, Dominica, Egypt, Jamaica, Philippines and Trinidad and Tobago suggested the inclusion of concepts on loss and damage, limits to adaptation and residual risks. The United States of America recommend that the IPCC should endeavor to capture the current scientific understanding of loss and damage due to the adverse effects of climate change within the context of sustainable development, adaptation practices, comprehensive risk management, and other non-climatic drivers. Japan suggested the inclusion of extreme events in the Polar regions and the impacts on changes in atmospheric and ocean circulations, and teleconnections.

The Republic of Korea recommended that the length and chapter order of the SROCC could be revised to have an even distribution of chapter length and to start with high mountains and polar regions followed by the open ocean and coastal regions. Indonesia proposed that coastal and low-lying areas be treated in their own chapter.

Australia, supported by Bahamas, Belgium, Belize, China, Egypt, France, Grenada, India, Indonesia, Kenya, Madagascar, Maldives, Philippines, Saudi Arabia, Singapore and Trinidad and Tobago recommended an explicit treatment of coral reefs in the outline. Spain suggested the inclusion of algae forests and seagrasses..

Pakistan suggested the addition of case studies at the end of each chapter. Italy supported the inclusion of case studies, and supported by France and Spain, proposed that a case study on the Mediterranean could be considered.

Belgium proposed that the Summary for Policymakers (SPM) should be up to a maximum of 10 pages and suggested the addition of a longer technical summary which could be translated to all United Nations languages. The latter suggestion was supported by Austria, Spain and Venezuela.

Belgium observed that the policy relevance and solutions-oriented approach appears scattered and weak in the SROCC. Kenya, supported by Belgium recommended that adaptation and resilience should also be included to enhance the policy relevance of the SROCC.

Saint Lucia inquired how time scales will be addressed in the SROCC noting the slow responses of the oceans and the cryosphere.

Bahamas supported by Dominica, Micronesia and Trinidad and Tobago recommended that human resettlement associated with coastal flooding should be treated in the SROCC. India proposed that extreme events affecting coastal regions such as storm surges and tropical cyclones should be explicitly referenced.

The United States of America suggested that the IPCC Vice-Chairs should be empowered to champion the report and that the IPCC should coordinate this work with other relevant assessments and processes such as the World Ocean Assessment. Norway recommended the involvement of social scientists in the author teams for the SROCC. The United Kingdom, supported by Luxembourg encouraged the Working Groups and author teams to consider complementarities and linkages and possible overlaps across reports.

Ms Ko Barrett, SSC Chair reported back to the Panel highlighting that the SSC took into consideration the requests to include a technical summary.

On the Framing and context chapter, the SSC included the issue of cascading risks and added ocean heat content. Bahamas supported by Belize, Cuba, Dominica, Ecuador, Germany, Grenada, Jamaica, Maldives, Mexico, New Zealand and Trinidad and Tobago

proposed the insertion of vulnerability assessments, adaptation limits and residual risks from climate related ocean and cryosphere change for resources and natural systems.

With regards to the chapter on High mountain areas, the SSC increased the page length, included observed and projected changes in the mountain cryosphere, added a bullet to include low latitude mountain cryosphere such as the 'third pole' and the Andes, and included consideration of river and coastal systems. Pakistan supported by China and India suggested that the 'third pole' should be explicitly mentioned. India proposed that this chapter should make reference to Himalayan ecosystems and monsoon dynamics. The United Republic of Tanzania supported by Zambia requested an inclusion of tropical high mountains. Ecuador requested an explicit reference to the Andes. Colombia requested that the SROCC should address the needs they have in relation to mountain cryosphere.

On the Polar regions chapter, the SSC added a reference to Antarctic glaciers and freshwater ice, and included teleconnections and a specific reference to atmospheric and ocean circulation.

On Chapter 4, Sea-level rise and Implications for Coasts and Communities, the SSC changed the title to have a specific reference to low lying Islands, included references to changes in coastal flooding and displacements and resettlement, and added reference to adaptation measures and limits. Micronesia expressed preference for an explicit reference to SIDS instead of low lying islands. Maldives preferred the reference to low lying islands.

Regarding the Chapter on Changing Ocean, Marine Ecosystems, and Dependent Communities, the SSC added a specific reference to variability and teleconnections, and pulled out the issue of fisheries and added a reference to coral reefs, broadened the discussion on deep and open oceans, and stressed that blue carbon is related to nature based solutions.

On the Extremes, Abrupt Changes and Managing Risks chapter, the SSC added reference to extratropical storms, storm surges and sea-level rise. Libya proposed that consideration be given to risks associated with tsunamis and other geological seismic risks. El Salvador requested a consideration of Pacific storm events. Zambia requested the inclusion of droughts in the outline.

With reference to cross-chapter box for low lying islands and coasts, a qualifier was added by the SSC to indicate that the box aims to integrate all the information that is of relevance to low lying islands and coasts.

Argentina, Japan, Madagascar and Republic of Korea accepted the revised outline as it was presented.

Saudi Arabia supported by Egypt observed that most of their intervention had not been reflected in the revised outline, particularly the lack of explicit reference to geoengineering and blue carbon. France supported by Spain recommended that a comprehensive treatment of geoengineering should be done in AR6 instead of the SROCC.. ETC Group raised a concern that marine geoengineering has some risks for the marine environment.

Norway supported by Belgium and the European Union proposed that the SROCC should place more emphasis on governance and solutions. France supported by Spain reiterated their request for a treatment of the Mediterranean region. Germany supported by Brazil suggested that regional issues should be treated in Working Group II AR6 instead of the SROCC.

Saint Lucia supported by Belize proposed that a consolidated approach be applied to address loss and damage in the context of the oceans and cryosphere, and how it will be felt in the coming decades.



Saudi Arabia requested that the SSC considers including reference to dust storms in the outline.

Ms Ko Barrett, addressing remarks on the participation of developing countries in the SROCC Scoping Meeting clarified that the percentage of selected developing country participants was much higher compared to the percentage of nominations received. She presented the latest version of the outline which incorporated the suggestions which had strong support such as the inclusion of vulnerability assessments, adaptation limits and residual risks; adding reference to solutions, including policy options and governance and linkages to relevant institutional and policy contexts; making reference to the UNFCCC; making reference to the Himalayas and East African high mountains; adding a reference to relevant ocean regions; and inclusion of dust storms.

Belgium, Germany and Pakistan accepted the latest version of the outline as presented.

Senegal raised a concern that explicitly mentioning mountains runs the risk of omitting other relevant mountains such as the Atlas Mountains. India suggested that the word 'etc' could be included at the end of list of mountains. The Chair of the SSC proposed that East be removed for the text to only refer to African high mountains.

The Chair of the IPCC presented the outline of the SROCC and the decision text to the Panel for adoption. The Panel adopted Decision IPCC/XLV-2 on the Sixth Assessment Report (AR6) Products, Outline of the Special Report on climate change, oceans and the cryosphere contained in Annex 1.

## **6.2 Outline of the Special report on climate change, desertification land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.**

Mr Youba Sokona, IPCC Vice-Chair and Chair of the Scientific Steering Committee (SSC) informed the Panel that the SSC for scoping the Special Report was formed by the IPCC Chair with technical support from the Working Group III TSU. The Panel was informed about the nomination process, selection and proportions of the sixty-nine participants for the Scoping Meeting which was held in Dublin, Ireland from 13-16 February 2017. Government and stakeholder consultations were done to solicit views and expectations through a questionnaire which was sent to governments and IPCC Observer Organizations. In depth discussions with key international organizations such as IPBES, UNCCD<sup>7</sup> and FAO<sup>8</sup> were held. Three members of the SSC could not travel to Dublin because of visa issues but were able to participate in the meetings remotely. Participants reached a consensus on the recommended outline, indicative page length with some flexibility, and the title and subtitle of the report. Mr Sokona thanked the SSC and the Working Group III TSU for their contribution towards the success of the scoping process (*documents* [IPCC-XLV/Doc. 7](#) ; [IPCC-XLV/INF. 7](#)).

Mr Andy Reisinger, Vice-Chair of the SSC reported that the FAO generously hosted a co-sponsored FAO/IPCC Expert Meeting on climate change, land use and food security which was held in January 2017. The result from the stakeholder consultation revealed diverse visions on the structure of the report which would have the highest impact. The proposed short title of the report is "Climate and Land", abbreviated as SRCCL, which is followed by the subtitle "An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems". Mr Reisinger summarized the intent of each of the seven chapters titled: 1) Framing and Context; 2) Land-Climate Interactions; 3) Desertification; 4) Land Degradation; 5) Food Security; 6) Interlinkages and Interactive Response Options; and 7) Emergent Risks, Decision Making and Sustainable Development. Each of the chapters focusing on core areas

<sup>7</sup> United Nations Convention to Combat Desertification

<sup>8</sup> Food and Agriculture Organization of the United Nations



requested by governments aim at considering management responses to reduce the impacts of climate change, and will have hotspots and case studies to demonstrate the spatial inhomogeneity in the realizations of the issues, and provide specificity and utility for real world examples to readers. The provisional schedule and timelines for preparing the report was presented.

During the ensuing discussion, Saudi Arabia noted with regret that the SSC Chair had not been able to obtain an entry visa to attend the scoping meeting. He suggested that the IPCC should have an agreement with host countries to ensure that all participants are issued entry visas. Saudi Arabia's concern was supported by Cuba, Ecuador, Ghana, Jordan, Madagascar, Mali, South Africa, Sudan, Swaziland, The United Republic of Tanzania, Venezuela and Zambia. Mr Nouredine Yassaa, Working Group I Vice-Chair suggested that the Secretariat could formulate a visa facilitation strategy and discuss visa issues when they visit Heads of Country Missions in Geneva as part of the resource mobilization strategy. Egypt supported by The United Republic of Tanzania thanked the Secretariat for their valuable help to acquire entry visas. Togo inquired if delegates could be issued diplomatic multiple entry visas.

On the title of the report, Venezuela supported by Haiti commented that it does not attract attention. Zambia asked if food security could be included in the title. Nicaragua, supported by Chile, Ecuador and Togo observed that the title would potentially confuse policy makers and proposed that the title should include sustainable land management or land use. Spain supported by the Dominican Republic suggested that the title could be confusing for the Spanish audience when translated. Madagascar supported by the United Republic of Tanzania suggested that the long subtitle should be the main title of the report without the concise title. Cuba, Germany, Luxembourg, Mexico, Norway, Switzerland and Turkey endorsed the title and subtitle as presented. Mr Andy Reisinger informed the Panel that the concise title was decided at the scoping meeting in an endeavor to ensure a balance of the key aspects from the diverse suggestions made by participants through a ballot box.

On the chapter order, Dominican Republic, supported by Italy, Ivory Coast, Norway, Switzerland, Turkey and Ukraine suggested that the chapters be rearranged so that land degradation precedes desertification. Saudi Arabia objected to the rearrangement of the chapters arguing that desertification, which is mainly due to natural causes, should precede land degradation which has an anthropogenic fingerprint. Hungary opined that the chapter titles and sequence could conform to the long subtitle of the report. The Republic of Korea, supported by Turkey proposed that land degradation neutrality related activities could be included in the outline.

With regards to Chapter 1, Framing and Context, the United States of America suggested that in the framing of the SRCCL, land should be considered as a dynamic resource instead of a finite resource.

On Chapter 2, land-climate interactions, Japan recommended the addition of remote sensing products and model outputs as monitoring mechanisms and attention to land-atmosphere coupling.

In Chapter 3, Desertification, Ivory Coast suggested the inclusion of drought in the outline.

With respect to Chapter 4, Land Degradation, Trinidad and Tobago echoing Saint Lucia, proposed that loss and damage resulting from the impacts of land degradation on agriculture be considered. South Africa suggested that consideration be given to land reform and land tenure. Bangladesh proposed the inclusion of river erosion.

On Chapter 5, Food Security, Japan supported by India and Pakistan recommended the consideration of all four pillars of food security (i.e. availability, access, utilization and stability) and the inclusion of mitigation strategies in the agricultural sector. The United States of America suggested the inclusion of the role of trade in enhancing and expanding regional and

global food security. Nicaragua supported by the ETC<sup>9</sup> Group suggested adding a discussion of food security in the context of rural communities and indigenous people. China suggested that the importance of food security to developing countries could be stressed. Saint Lucia, supported by Cuba, Dominica, Haiti and Trinidad and Tobago, recommended the inclusion loss and damage, food trade, fresh water availability, biodiversity loss and extreme events.

In Chapter 6, Interlinkages and Interactive Response Options, Italy suggested a revision of the chapter title. The United States of America suggested that the roles of market forces and technological change in reducing competition for land and improving the productivity of land be included. Brazil proposed the inclusion of an assessment of the interactions of different types of land use. Norway recommended including the role of bioenergy in mitigation and that risks should be dealt with in this chapter. Saudi Arabia noted that emphasis on land-based mitigation could introduce the risk of land competition.

With regards to Chapter 7, Emergent Risks, Decision Making and Sustainable Development, Norway supported by China suggested that this chapter should be devoted to solutions. Brazil suggested the inclusion of case studies.

Poland supported by Argentina, Belgium, Chile, Cuba, Dominican Republic, France, Hungary, India, Ivory Coast, Norway, Senegal and the United States of America observed that forests are not prominent in the outline despite their relevance for climate neutrality, sequestration potential of terrestrial ecosystems, mitigating soil and water erosion, supporting water management and preventing natural disasters. South Africa recommended the inclusion of grasslands, woodlands and soils. Germany suggested that to the extent that all ecosystems such as peatlands and wetlands and relevant aspects will be assessed by the authors, they need not be explicitly mentioned in the outline primarily because the bullets are only indicative.

Switzerland supported the inclusion of definitions and key concepts in the framing chapter and proposed that land as a finite resource, land restoration and soils should be elaborated. Switzerland supported by Mali opined that a special attention should be given to regional aspects in the report.

Mali supported by Cuba, Ivory Coast, Nicaragua and the United Republic of Tanzania observed that drought is not explicitly mentioned in the outline or the title of the report. Germany noted that the outline does not make an explicit mention of extreme events. Nigeria proposed consideration of the role of extreme events in exacerbating conflicts.

Germany, supported by Norway remarked that the division between the last two chapters was not very clear and proposed that sub-bullets could be swapped across the chapters such that Chapter 6 covers the problem space and Chapter 7 addresses policy options. Turkey suggested that a chapter explicitly dealing with mitigation aspects could be included to avoid overlaps with adaptation issues within and across chapters. Belgium, supported by France, Norway and the European Union suggested the inclusion of biodiversity in the context of climate change mitigation. ETC Group cautioned that the concept of negative emission is still under discussion.

Germany, supported by Belgium, Luxembourg, Norway, Saudi Arabia and the European Union recommended that the outline could have an explicit reference to how the land sector could inform the implementation of the Paris Agreement. Saudi Arabia suggested that any discussion on the implementation of the Convention should consider means for implementation such as finance, technology and capacity building. Nicaragua objected to the inclusion of the Paris Agreement arguing that the IPCC should remain policy neutral.

India queried the expected assessment of attribution in land degradation, desertification and food security arguing that distinguishing between climatic and non-climatic changes is almost impractical.

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<sup>9</sup> Action Group on Erosion, Technology and Concentration

Belgium supported by Austria, Chile and Madagascar suggested that the SPM<sup>10</sup> should be kept short but a longer technical summary of about 30 pages be included which can be translated into all UN languages. Ecuador proposed the preparation of a short technical document presenting the technical aspects contained in the report. Germany objected to the inclusion of a technical summary.

India suggested that the schedule for the preparation of the reports should avoid overlaps between key tasks.

The United States of America suggested that the content of the SRCCL should be evaluated against other IPCC products to prevent unnecessary duplication and recommended that IPCC Vice-Chairs could be champions to coordinate across author teams and Working Groups to ensure that nothing is lost nor repeated across products.

The United States of America recommended that author teams should include economists who are familiar with the economic literature relevant for the SRCCL to, *inter alia*, address topics such as the role of technology, markets and economic analysis in understanding certain key concepts. Norway suggested that social scientists with experience in working across disciplines should be included in the author teams.

SSC Chair Mr Youba Sokona, reported back to the Panel highlighting that the SSC had made an effort to make most points more explicit. The SSC concluded that a technical summary which consists of the executive summaries and selected figures from each of the chapters is feasible considering the workload of the authors and the time constraint to produce the SRCCL. Belgium supported by Hungary suggested that Working Group Vice-Chairs could assist the SRCCL authors in the preparation of a technical summary. Saudi Arabia supported by Venezuela discouraged the inclusion of a technical summary.

The presented compromise title of the report was "Climate Change and Land". Morocco endorsed the title. Spain supported by Colombia suggested that when doing the translation to other UN Languages, the word 'land' could be changed to 'soil' in the title as is been used in other documents in the context of the Climate Change Convention, but other options could be discussed to avoid confusion. Belgium suggested that caution should be taken when translating the SRCCL title to avoid possible ambiguities. India supported by El Salvador suggested that ambiguities related to the title should be addressed by the Communications and Outreach team.

On the Chapter on Framing and Context, the SSC explicitly included text on additional and alternative demands and use of land in the context of climate change as well as socio-economic and technological changes.

On Chapter 2, the SSC included a bullet on extreme events, treatment of terrestrial greenhouse gas fluxes in natural and managed ecosystems, soils, forests and other land cover types. Brazil supported by South Africa suggested that the outline could mention all land cover types under the assumption that peatlands and grasslands will also be considered when preparing the SRCCL.

On the Chapter on Desertification, the SSC included a bullet on droughts, on observed and projected impacts of desertification on natural systems in the context of a changing climate and on limits to adaptation in an endeavor to assess the issue of loss and damage. Saint Lucia supported by El Salvador, Ghana, Grenada, Haiti, Jamaica, Maldives and Trinidad and Tobago observed that there was still no explicit reference to loss and damage in the revised outline and noted that limits to adaptation do not sufficiently address their request to explicitly assess scientific information on loss and damage in the SRCCL. The United States of America supported by New Zealand and United Kingdom cautioned that the concept of loss

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<sup>10</sup> Summary for Policy Makers

and damage is a political issue which the IPCC should not stray into but instead focus on scientific issues related to climate change.

With respect to Chapter 4, Land Degradation, the SSC added dust and aerosols, land restoration, sustainable land management and limits to adaptation in the outline.

On Chapter 5, Food Security, the SSC added the affordability aspect, trade and markets, vulnerability including extremes, food supply and demand, land-based mitigation options associated with food supply and demand, and the limits to adaptation to cover loss and damage. Brazil observed that the bullet on impacts of mitigation options on food security also appears in Chapter 6 and suggested that there is no need for repetition. Mali supported by Belgium, Ghana, Guinea, Niger, Senegal and Togo proposed an emphasis of the impact of droughts on food security. Nicaragua supported by Venezuela suggested the inclusion of vulnerable communities.

On Chapter 6, Interlinkages and Interactive Response Options, the title was modified by the SSC to make it clearer. Certain bullet points were also edited for clarity and text on fresh water, soil, biodiversity, forestry, balancing the role of anthropogenic sources and sinks and case studies was added. The United States of America supported by New Zealand and Norway suggested an expansion of the bullet on competition for land to cover other important topics such as the role of market forces and technological changes improving input use efficiency and land productivity. Saudi Arabia objected to the inclusion of market forces in the SRCCL. Norway observed that the discussion on synergies appears in two chapters in an almost identical manner. Japan suggested the explicit mention of synergies, trade-offs, side-effects and co-benefits. WWF cautioned that the role of biomass energy in negative emissions is still debatable.

With regards to Chapter 7, Emergent Risks, Decision Making and Sustainable Development, the SSC edited the title. Text was included to cover pertinent issues such as conflict migration and sustainable land management. Norway suggested some editorial changes in the title to avoid an impression that decision making is only dealt with in the context of sustainable development. Bangladesh proposed the inclusion of 'risk identification' in the chapter title. Norway supported by Germany and Poland reiterated the need for an explicit link to the Paris Agreement such as the role of the land sector in its implementation.

Turkey supported by Senegal, Switzerland and United Kingdom reiterated their suggestion to have the chapters on desertification and land degradation swapped such that land degradation is discussed before desertification. The United Kingdom recommended an overlap in the chapter authors to allow for the necessary cross-referencing. Saudi Arabia objected to changing the order of the chapters.

United States of America reiterated that the Vice-Chairs and Co-Chairs should be empowered for them to ensure the appropriate placement of all pertinent issues across AR6 products and inquired about which documents from the scoping meeting will be forwarded to the SRCCL authors.

Colombia suggested that each chapter should conclude with a roadmap on how to implement response measures. The European Union recommended close collaboration between authors in order to consistently deal with topics which span different chapters.

Mr Youba Sokona, SSC Chair reminded the Panel that the bullets are only indicative and that the authors will deal with the relevant topics appropriately. He requested the Panel to adopt the outline in its current form. Working Group III Co-Chair informed the Panel that the bullets will provide guidance to authors on the relevant literature to be assessed. Supported by France, Guinea, Niger and Saudi Arabia, Working Group III Co-Chair proposed that loss and damage be included in the IPCC-45 report and the decision text. The request to adopt the outline was accepted by Argentina, Chile, Niger, Norway, Saudi Arabia, South Africa and the United States of America. Saint Lucia supported by Bahamas, Cuba and Venezuela

(Bolivarian Republic of) objected to the adoption of the outline without explicit reference to loss and damage. China accepted the outline but proposed that the SSC finds wording to incorporate loss and damage. Roberto Sánchez Rodríguez, Working Group II Vice-Chair, while noting that loss and damage could be covered in the main AR6, suggested the inclusion of vulnerability assessment which covers the driving forces behind loss and damage, and limits to adaptation. Switzerland proposed that the issue of time dimension that is relevant for loss and damage be included in the outline to guide the authors.

Mr Andy Reisinger, SSC Vice-Chair suggested that a compromise could be to amend the bullet in Chapter 1 which refers to key concepts and definitions to include the relationship of loss and damage to observed impacts, limits to adaptation and residual impacts. Bahamas and Maldives accepted the proposed amendment. The United States of America supported by United Kingdom objected to the definitional amendment. Mr Edwin Aldrian, Working Group I Vice-Chair, recommended that the SIDS should nominate scientists who will ensure that topics such as loss and damage are appropriately addressed in the SRCCL.

The Chair of the IPCC proposed that the Panel adopts the revised outline with the understanding that the report of the 45<sup>th</sup> Session of the IPCC will include the concerns raised in the deliberations. The outline of the SRCCL was adopted by the Panel albeit with some dissatisfaction by certain parties.

During the Panel discussion on the outline of the SROCC, Bahamas requested that the outline of the SRCCL be reopened to include vulnerability assessments, adaptation limits and residual risks under the Framing and Context Chapter. The request was supported by Belgium, Cook Islands, Cuba, France, Grenada, Maldives, Norway, Saint Lucia, Trinidad and Tobago and United Kingdom.

The Chair of the IPCC proposed that the proposal by Bahamas be included in the outline of the SRCCL. The Panel adopted the outline with the additional text.

The Panel adopted Decision IPCC/XLV-1 on the Sixth Assessment Report (AR6) Products, Outline of the Special report on climate change, desertification land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems contained in Annex 1.

## **7. IPCC SCHOLARSHIP PROGRAMME**

Ms Ko Barrett, IPCC Vice-Chair and Chair of the Scholarship Programme Science Board introduced the agenda item (document [IPCC-XLV/Doc. 9](#)). Ms Barrett reminded the Panel of the options which were presented at the 44<sup>th</sup> Session of the IPCC for the improvement of the Programme. She reported that Science Board members were in Monaco for the Scoping Meeting where they held bilateral meetings with the Prince Albert II of Monaco Foundation and the Cuomo Foundation. The Foundation partners indicated their strong interests in continuing with the partnership albeit with a need to address certain reporting and procedural issues in order to improve the management of the activity. The foundations encouraged the Science Board to launch a call for applications as soon as possible to allow for the next round of awards by summer 2017. Ms Barrett informed the Panel that the IPCC Bureau at its 53<sup>rd</sup> Session indicated strong support for the second option presented to the 44<sup>th</sup> Session of the IPCC to identify academic institutions or foundations with climate change related scholarship programmes in order to establish partnerships for the use of the IPCC Scholarship Programme funds. The Science Board considered the views expressed by the Bureau and concluded that it is possible to adopt a hybrid approach by moving forward with the call for awards while also pursuing long-term partnership opportunities.

During the ensuing discussion, Swaziland, Ghana and Kenya thanked Monaco, the Prince Albert II of Monaco Foundation, and the Cuomo Foundation for the generous support and supported the initiative to launch a call for applications under the 4<sup>th</sup> round of awards.

Monaco confirmed that the Prince Albert II of Monaco Foundation is willing to continue their support of the IPCC Scholarship Programme and to contribute to strengthening capacity of researchers in the developing world. The Foundation is willing to extend the support beyond two years, subject to budget considerations, although the number of scholarships awarded might reduce.

Switzerland inquired about a detailed list of activities and financial statement of the IPCC Scholarship Programme Trust Fund. Ms Barrett in her response mentioned that the information is available in previous IPCC documents.

Germany making reference to the discussion at the 44<sup>th</sup> Session of the IPCC inquired how the Science Board intends to address the challenges presented to the Panel and suggested that partnerships could be established to avoid compromising the core business of the IPCC. The suggestion to establish partnerships was supported by Belgium. The Chair of the Science Board responded that the Board launched the call for applications to keep the momentum and to submit applicants to the Foundation partners who could be awarded scholarships during summer 2017.

Belgium thanked the Prince Albert II of Monaco Foundation and the Cuomo Foundation for their generous support of the Scholarship Programme and requested an update of the completion rate of PhDs by the beneficiaries from previous rounds of awards. The Secretariat responded that additional two beneficiaries had graduated since the report was last presented at the 44<sup>th</sup> Session of the IPCC. Belgium reminded the Science Board of the need to constitute a new Board of Trustees to mobilize additional funds for the Programme and suggested that the ATG-Finance on IPCC Financial Stability could mention the programme in their work towards soliciting funds to support IPCC work.

Nigeria suggested that the beneficiaries could be bonded as part of the monitoring mechanism.

The Chair of the IPCC proposed that the Panel to considers the document and requested the Science Board and the Secretariat to take note of the suggestions from the members of the Panel and to continue to consider options for the improvement and longer-term sustainability of the Scholarship Programme. The Panel adopted the proposal.

## **8. ANY OTHER BUSINESS**

Under this agenda item the IPCC discussed the work of the Task Force on National Greenhouse Gas Inventories (TFI), the alignment of the IPCC cycle with the global stocktake under the UNFCCC, the IPCC Library Facility, matters related to UNFCCC, and short – lived climate forcers.

The following delegations took the floor: Germany, Togo, Mali, Guinea, France, United Kingdom, Switzerland, Norway, the Netherlands, Luxemburg, Saudi Arabia, Brazil, Mexico with Chile and Kenya, Canada, China, Chile, and Belgium.

TFI Co-Chair Kiyoto Tanabe reported on the activities of the TFI work regarding the methodology report on the 2019 Refinement of the 2006 IPCC Guidelines on National GHG Inventories, including selection of authors and editors, assessment of any conflicts of interest; and recent meetings. There was a request that the TFI progress reports be included on the agenda of future IPCC sessions. Several delegations asked for training on technology and methodology at the sub regional level. Improving attendance at meetings was addressed. IPCC took note of the comments. One delegation noted the need already highlighted during previous IPCC sessions that the aligning of the AR6 cycle with the UNFCCC's global stocktake be addressed by the IPCC. The Secretariat said the issue would be addressed at IPCC-46.

Another delegation asked for an update on the IPCC library facility. The Secretariat reported that an agreement had been reached between UN Environment and the IPCC on the provision of access to publications and literature for authors from developing countries during the AR6 cycle. The secretariat reported that a manual for users is currently being finalized. One delegation put forward an option for partnerships whereby private entities were to provide free access to commercial publications.

Plenary then deliberated on matters related to the UNFCCC. Many delegations requested that the report from UNFCCC be a standing issue on the agenda, as per past practice. The UNFCCC Secretariat presented an update on issues of joint interest to the UNFCCC and IPCC emanating from the COP 22 held in Morocco in November 2016; the recommendation of the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) on how IPCC reports can be considered in the global stocktake; a recommendation that the SBSTA-IPCC Joint WG be strengthened in the context of the global stocktake; IPCC participation in the upcoming meeting of the research dialogue and an expert meeting on emissions scenarios. COP 24 in 2018 will be postponed until December.

Several delegations requested that no agenda be approved before it had been considered by focal points. The Secretariat took note of the proposal and said that the proposed agenda for IPCC-46 would be sent out well in advance of the meeting.

One delegation, supported by others, presented a draft proposal whereby the Executive Committee of the IPCC is requested to develop options for continuing IPCC discussions on short-lived climate forcers (SLCFs), particularly black carbon. Such options could include an expert meeting to produce recommendations for IPCC-47. Many expressed support for this. Canada noted a willingness to organize a parallel event on the issue during IPCC-46. TFI Co-Chair Mr Kiyoto Tanabe noted that some of the SLCFs such as CH<sub>4</sub> and HFCs are already covered in the IPCC Inventory Guidelines although black carbon is not. He noted that the TFI's mandate is flexible but that there are financial and time constraints to carry out such work. One delegation suggested that the IPCC inform the UNFCCC and the Climate and Clean Air Coalition of any work undertaken on SLCFs. Another delegation asked for a clarification as to the science for addressing black carbon and potential lack of political will to address it. On Friday morning, Mexico explained in more detail that the primary objective of the proposal was to obtain technical advice from the IPCC on methodologies for countries to use in their national inventories, if desired.

The Chair of the IPCC said that the discussions would be recorded in the report of IPCC-45 and that the Executive Committee would address the issue and report back to IPCC-46.

## **9. PLACE AND DATE FOR THE 46TH PLENARY SESSION OF THE IPCC**

The Secretary informed the Plenary of the generous offer of the Government of Canada to host the 46<sup>th</sup> Session of the IPCC, and Canada noted that it was honored to host the next session of the IPCC. Several delegations expressed gratitude to Canada for its generous offer and requested that the proposed timing of the meeting should take into account the date for the Eid al-Adha holiday. One delegation also requested that the securing of visas for Canada for participants to the meeting would be ensured. The Chair said that such considerations would be taken into account in the planning of the next session of the IPCC.

## **10. CLOSING OF THE SESSION**

The Chair of the IPCC thanked the Government of Mexico for hosting a successful 45<sup>th</sup> Session of the IPCC. He thanked delegates, Bureau members, the Secretariat and the interpreters for a successful meeting and gavelled the meeting to a close at 5.07 pm on Friday 31 March 2017.



45<sup>TH</sup> SESSION OF THE IPCC

28 – 31 March 2017, Guadalajara, Mexico

Decisions adopted by the Panel**Decision IPCC/XLV-1. Sixth Assessment Report (AR6) Products, Outline of the special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**

The Intergovernmental Panel on Climate Change decides:

1. To agree to the outline of Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems as contained in Annex 1 to this document.
2. That this report assesses literature relevant to climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, especially since the Fifth Assessment Report (AR5), consistent with the IPCC guidance on the use of literature.
3. That the bulleted text in Annex 1 to this Decision, that resulted from the scoping process and refined through comments by the Plenary, be considered by authors as indicative.
4. That the time schedule for the production of the Special Report is as follows:
  - a call for nominations of Coordinating Lead Authors (CLAs), Lead Authors (LAs) and Review Editors (REs) will be issued after the 45th Session of the IPCC in March 2017.
  - approval and acceptance of the Special Report is planned for the Session of the IPCC in September 2019.
  - in order to achieve this, the timetable for the Special Report is as follows:

Call for author nominations	10 April – 21 May 2017
Selection of authors	9 July 2017
1 <sup>st</sup> Lead Author Meeting	16 - 20 October 2017
2 <sup>nd</sup> Lead Author Meeting	26 – 30 March 2018
First Order Draft Expert Review	4 June – 22 July 2018
3 <sup>rd</sup> Lead Author Meeting	3 - 7 September 2018
Second Order Draft Expert and Government Review	29 October - 23 December 2018
4th Lead Author Meeting	11 - 15 February 2019
Final Government Review of Summary for Policymakers (SPM)	22 April – 16 June 2019
IPCC acceptance/adoption/approval	2 - 8 September 2019

5. That the budget for the production of the Special Report is as contained in Decision (IPCC/XLV-3) on the IPCC Trust Fund Programme and Budget.

## **Proposed outline of the special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**

**Title:** Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems

### **List of Contents**

Front matter (2 pages)  
Summary for Policy Makers (~10 pages)  
Technical Summary (consisting of chapter executive summaries with figures) (~20-30 pages)  
Chapter 1: Framing and Context (~15 pages)  
Chapter 2: Land-Climate Interactions (~50 pages)  
Chapter 3: Desertification (~35-40 pages)  
Chapter 4: Land Degradation (~40 pages)  
Chapter 5: Food Security (~50 pages)  
Chapter 6: Interlinkages between desertification, land degradation, food security and GHG fluxes: Synergies, trade-offs and Integrated Response Options (~40 pages)  
Chapter 7: Risk management and decision making in relation to sustainable development (~40 pages)  
Boxes, Case Studies and FAQs (~up to 20 pages)  
Total: up to 330 pages

### **Chapter 1: Framing and Context (~15 pages)**

- Socio-economic, biogeochemical, and biophysical interactions between climate change and desertification, land degradation, food security and GHG fluxes
- Additional and alternative demands for, and use of, land in the context of climate change, as well as socioeconomic and technological changes.
- The contribution of this report in relation to reports by IPCC and other relevant institutions (for instance IPBES, UNCCD, FAO, etc.)
- Key concepts and definitions including vulnerability assessments, adaptation limits, and residual risks
- Treatment of uncertainties
- Integrated storyline of report, chapter narrative, sequence, linkages

### **Chapter 2: Land–Climate interactions (~50 pages)**

- Climate change and variability, including extremes, that influence desertification, land degradation, food security, sustainable land management and GHG fluxes in terrestrial ecosystems
- Terrestrial GHG fluxes in natural and managed ecosystems (e.g. soils, forests and other land cover types) and related stocks: methods, status, trends, projections, and drivers
- Biophysical and non-GHG feedbacks and forcings on climate
- Consequences for the climate system of land-based adaptation and mitigation options, including negative emissions

### **Chapter 3: Desertification (~35-40 pages)**

- The specific nature of desertification
- Status, current trends and future projections of desertification linked to climate change, globally and regionally
- Climatic and anthropogenic direct and indirect drivers of desertification including extremes such as drought
- Attribution: distinguishing between climatic- and human-induced changes
- Desertification feedbacks to climate, including sand and dust storms
- Climate-desertification interactions, including past observations and future projections
- Observed and projected impacts of desertification on natural and human systems in a changing climate. This could include the role of aerosols and dust, impacts on ecosystem services (e.g. water, soil and soil carbon and biodiversity) and impacts on socio-ecological systems (e.g. impacts on vulnerable communities, poverty, food security, livelihoods, and migration).
- Technological, socio-economic and policy responses to desertification under a changing climate including economic diversification, enabling conditions, co-benefits as well as limits to adaptation
- Hotspots and case-studies

### **Chapter 4: Land Degradation (~40 pages)**

- Processes that lead to degradation and their biophysical, socio-economic, and cultural drivers across multiple temporal and spatial scales
- Linkages and feedbacks between land degradation and climate change, including extremes (e.g. floods and droughts), erosion, and their effects on ecosystems and livelihoods
- Status, current trends and future projections of land degradation linked to climate change, globally and regionally
- Attribution: distinguishing between climatic- and human-induced changes
- Direct and indirect impacts of Climate Change on Land Degradation, Land Degradation on Climate Change, and reactive and proactive response options, such as land restoration, for key socio-ecological systems
- Observed and projected impacts of land degradation on natural and human systems in a changing climate. This could include impacts on ecosystem services (e.g. water, soil and soil carbon, biodiversity) and impacts on socio-ecological systems (for example, impacts on vulnerable communities, poverty, food security, livelihoods, and migration).
- Integrated higher-level responses, e.g. sustainable land management (where possible related to the SDGs), including considerations of cost, incentives and barriers and limits to adaptation
- Hotspots and case-studies

### **Chapter 5: Food Security (~50 pages)**

- Framing and Context: food and nutrition security (availability, access, utilization, stability, affordability), food systems (including trade and markets), farming systems including agroforestry, food-energy-water nexus, and the role of desertification and land degradation.
- Status, current trends and future projections of food and nutrition security linked to climate change, globally and regionally
- Attribution: distinguishing between climatic- and human-induced changes
- Observed and projected impacts of climate change and variability, including extremes, on food and nutrition security, including food production, prices and livelihoods
- Impacts of food and nutrition security on climate change

- Responses in terms of adaptation considering the full range of options and their use, as well as limits to adaptation
- GHG mitigation options associated with food supply and demand
- The influence of land based mitigation options on food and nutritional security
- Synergies and trade-offs between adaptation and mitigation (considering scales, linkages, and co-benefits), sustainable land management
- Consequences of measures to enhance food and nutrition security for adaptation and mitigation in a changing climate
- Hotspots and case-studies

#### **Chapter 6: Interlinkages between desertification, land degradation, food security and GHG fluxes: synergies, trade-offs and integrated response options (~40 pages)**

- Combined and interactive effects between desertification, land degradation, food security and GHG fluxes, and scenarios
- Economic and social dimensions of response options including sustainable land management: synergies/trade-offs/side-effects/co-benefits
- Impacts of land-based mitigation options on land degradation, desertification, food security, and ecosystems and their services (e.g. soil, fresh water, biodiversity)
- Impacts of land-based adaptation options on land degradation, desertification, food security, ecosystems and their services and limits to adaptation
- Land-based negative emissions (including the role of forests, soils and the use of biomass) and their role in balancing anthropogenic sources and sinks
- Adaptation-mitigation interactions and co-benefits
- Competition for land
- Case-studies

#### **Chapter 7: Risk management and decision making in relation to sustainable development (~40 pages)**

- Risks arising from interaction of climate change with desertification, land degradation, food security and other development pressures (.e.g. conflicts, migration)
- Management responses to areas of substantive risk arising from climate change
- Synergies and trade-offs of response options that affect sustainable development and climate change adaptation and mitigation
- Governance, institutions and decision-making across multiple scales that advance adaptation, mitigation and sustainable land management in the context of desertification, land degradation and food security

## **Decision IPCC/XLV-2. Sixth Assessment Report (AR6) Products, Outline of the Special Report on climate change and oceans and the cryosphere**

The Intergovernmental Panel on Climate Change decides:

(1) to agree to the outline of the *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* as contained in Annex 1 to this document;

(2) that this report assesses literature relevant to climate change and the oceans and the cryosphere, especially since the Fifth Assessment Report (AR5), consistent with the IPCC Guidance on the Use of Literature;

(3) that the bulleted text in Annex 1 to this Decision, that resulted from the scoping process and refined through comments by the Plenary, be considered by authors as indicative, taking into account the scope of the literature assessment referred to in bullet 2 and scientific gaps that will be explicitly identified;

(4) In order to achieve this, the timetable for the production of the Special Report is as follows:

7 April–19 May 2017	Call for nominations of Coordinating Lead Authors, Lead Authors and Review Editors
30 June 2017	Selection of authors
2–6 October 2017	First Lead Authors Meeting
12–16 February 2018	Second Lead Authors Meeting
4 May–29 June 2018	Expert Review of the First Order Draft
23–27 July 2018	Third Lead Authors Meeting
16 November–11 January 2019	Expert and Government Review of the Second Order Draft
25 February–1 March 2019	Fourth Lead Authors Meeting
14 June–9 August 2019	Final Government Distribution of the Final Draft and Final Government Review of the Summary for Policymakers
23–27 September 2019	IPCC approval of the Summary for Policymakers and acceptance of the Special Report

(5) that the budget for the production of the Special Report is as contained in Decision (IPCC/XLV-3) on the IPCC Trust Fund Programme and Budget.

## **IPCC Special Report on the Ocean and Cryosphere in a Changing Climate**

### **Summary for Policymakers (~10 pages)**

#### ***Technical Summary (consisting of chapter executive summaries with figures) (~20 pages)***

### **Chapter 1: Framing and Context of the Report (~15 pages)**

- Integrated storyline of the report, chapter narrative, chapter sequence and their linkages (including coverage of extremes and abrupt change and irreversible changes)
- Definition of ocean and cryosphere and their components
- Observing capacities, progress and limitations (e.g., time series and spatial coverage)
- Assessment methodologies, including indigenous and community knowledge, risk, including cascading risks, and applications of detection and attribution
- Role of ocean and cryosphere in the climate system, including characteristics, ocean heat content in Earth's energy budget, key feedbacks and time scales
- Implications of climate-related ocean and cryosphere change for resources, natural systems (e.g., change and loss of habitat, extinctions), human systems (e.g., psychological, social, political, cultural and economic aspects), and vulnerability assessments, adaptation limits, and residual risks
- Solutions, including policy options and governance, and linkages of this report to relevant institutional and policy contexts (e.g., UNFCCC, Paris Agreement and SDGs, Sendai Framework)
- Treatment of vulnerabilities and marginalized areas and people (e.g., gender) in this report
- Scenarios and time frames considered in this report
- Treatment of uncertainty

### **Chapter 2: High Mountain Areas (~30 pages)**

- Observed and projected changes in mountain cryosphere (glaciers, permafrost, and snow), common drivers of change, and feedbacks (e.g., CH<sub>4</sub> emissions, albedo) to regional and global climate
- Effects of a changing mountain cryosphere on natural hazards and management options for protecting lives, livelihoods, infrastructure, and ecosystems
- Impacts from changes in the mountain environment, including low latitudes (e.g., Himalayas, Andes, Africa) on habitability, community livelihoods and culture
- Risks for societies that depend on mountain cryosphere for water resources (e.g., human consumption, ecosystems and agriculture), including cascading risks, and potential response strategies (e.g., national and international water resource management and technologies)
- Impacts of variability and trends in water supply on hydropower production and implications for energy policy and water governance
- Influence of mountain cryosphere run-off on river and coastal systems and sea level



### **Chapter 3: Polar Regions (~50 pages)**

- Changes in atmospheric and ocean circulation that influence polar regions, including climate feedbacks and teleconnections and paleo perspectives
- Greenland and Antarctic ice sheets and ice shelves, Arctic and Antarctic glaciers, mass change, physics of dynamical instability and accelerated ice discharge; consequences for ocean circulation and biogeochemistry, and sea level
- Changing snow cover, freshwater ice and thawing permafrost (terrestrial and subsea); carbon flux and climate feedbacks; impacts on infrastructure and ecosystems; community-based adaptation
- Changing sea ice; effects on ocean and atmospheric circulation and climate, including teleconnections; implications for ecosystems, coastal communities, transportation and industry
- Changing polar ocean (physical, dynamical and biogeochemical properties), implications for acidification, carbon uptake and release; impacts on ecosystems and their services (e.g., fisheries); adaptation options (e.g., ecosystem-based management and habitat protection) and limits to adaptation
- Access to resources and ecological, institutional, social, economic, livelihood and cultural consequences of polar change, including issues of international cooperation
- Responses to enhance resilience

### **Chapter 4: Sea Level Rise and Implications for Low Lying Islands, Coasts and Communities**

**(~50 pages)**

- Observations and projections of sea level at global and regional scale, attribution to drivers, factors that influence relative sea level change, and long-term commitment and paleo perspective
- Demographic and socio-economic factors that drive vulnerability and exposure to sea level rise
- Current and future sea level rise risks, including changes in coastal flooding, resulting in biophysical, ecological, economic, political, cultural, social and psychological impacts, displacement and resettlement
- Implications of sea level rise for highly vulnerable coastal zones, particularly SIDS, coastal cities and infrastructure, deltas and low-elevation areas
- Pathways to resilience and sustainable development: adaptation measures and limits, safety margins, barriers and enablers

## **Chapter 5: Changing Ocean, Marine Ecosystems, and Dependent Communities (~65 pages)**

- Changes in key physical and biogeochemical properties and processes, including the deep ocean and relevant ocean regions, modes of variability, teleconnections and their feedbacks on the climate system
- Specific and combined effects of changes in climate related variables (e.g., warming, acidification, oxygen loss, dust inputs) on e.g., productivity, species distribution and exclusion, habitat compression, food webs
- Impacts of ecosystem changes on key ecosystem services (e.g., carbon uptake, biodiversity, coastal protection, fisheries, food security and tourism)
- Degradation in benthic habitat (e.g., storm-driven) and improved resilience through conservation and restoration, including coral reefs
- Interactions of climate and non-climatic drivers (e.g., pollution, fishing practices, resource extraction, habitat changes); impacts on marine environments, including coastal, deep and open ocean, ecosystems, and human health (e.g., harmful algal blooms)
- Blue carbon, mangrove restoration, and other nature-based solutions, and ocean implications of different mitigation measures
- Climate change impacts and trade-offs in ocean economies and governance across all scales
- Resilience pathways, adaptation options and limits for marine ecosystem dependent communities and their livelihoods

## **Chapter 6: Extremes, Abrupt Changes and Managing Risks (~20 pages)**

- Risks of abrupt change in ocean circulation and cryosphere and potential consequences
- Extreme ENSO events and other modes of variability and their implications
- Marine heat waves and implications
- Changes in tracks, intensity, and frequency of tropical and extra-tropical storms and associated wave height
- Cascading risks (e.g., storm surge and sea level rise), irreversibility, and tipping points
- Monitoring systems for extremes, early warning and forecasting systems in the context of climate change
- Governance and policy options, risk management, including disaster risk reduction and enhancing resilience

## **Case Studies, Frequently Asked Questions and Boxes (~20 pages throughout chapters)**

### **Integrative Cross-Chapter Box: Low Lying Islands and Coasts (up to 5 pages)**

- Key climate drivers and changes relevant for low lying islands and low lying coastal areas
- Impacts and cascading risks of climate driven changes (e.g., sea level rise, ocean circulation, extreme events), interacting with other drivers, on habitability, infrastructure, communities, livelihoods, loss of lives and assets and territories, infrastructure, ecosystems, coral reefs, access to resources, and on institutional, social, economic, and cultural aspects
- Resilience pathways and adaptation options and their limits to address these changes

### **Decision IPCC/XLV-3. IPCC Trust Fund Programme and Budget**

Based on the recommendations of the Financial Task Team, the Intergovernmental Panel on Climate Change:

1. Thanks the Secretariat of the IPCC for the Statement of Contributions, 2017-2020 budget tables and the interim statement of comparison of budget and actual amount (as of 31 December) as contained in document IPCC-XLV/Doc.2, the resource mobilization strategy as contained in document IPCC-XLV/Doc.3, the resource mobilization partnership policy and procedures presented in document IPCC-XLV/Doc.8, an update on the resource mobilization campaign contained in document IPCC-XLV/INF.6 and proposals for decreasing travel expenditures as contained in IPCC-XLV/INF.3.

2. Approves that the revised 2017 budget proposal should include the following modifications in **Annex 6** as compared to the budget approved at the 44<sup>th</sup> Session of the IPCC:

- Move of “Library Facility” budget line from 2016 to 2017; increase of CHF 103,000;
- Addition of budget line “Resource Mobilization”; increase of CHF 15,800;
- Adjustment in number of journeys for “SR2 LA 1” budget line; increase of CHF 65,520.

3. Notes the proposed budget for 2018 (**Annex 7**), the forecast budget for 2019 (**Annex 8**) and the indicative budget for 2020 (**Annex 9**), as proposed in these decisions.

4. 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. Thanks WMO for its contribution to the IPCC Trust Fund. Thanks the United Nations Framework Convention on Climate Change for its contribution to the IPCC Trust Fund.

5. Expresses its gratitude to member countries, especially those from developing countries, for their generous contributions to the IPCC Trust Fund, with special thanks to governments which support the Technical Support Units (TSUs) and a number of IPCC activities, including data centres, meetings and outreach actions.

6. Urges member countries to maintain their generous contribution in 2017 and invites governments, who are in a position to do so, to increase their level of contribution to the IPCC Trust Fund or to make a contribution in case they have not yet done so. Further urges member countries to make multi-year contributions, if they are in a position to do so. Reminds member countries, when transferring funds to WMO, to indicate that the contribution is “for the IPCC Trust Fund” to ensure proper identification of the recipient.

7. Requests the Secretariat, on an on-going basis:

- to provide detailed information on the breakdown of the “Secretariat” budget line
- to provide information on Secretariat expenses that are included under other budget lines
- to provide further information about what is included under each budget line
- to tabulate historical annual expenditures since the beginning of the AR5 cycle

8. Requests the Secretariat to analyse reasons for over-estimation of budget needs in the past in order to enable more accurate forecasting to be submitted to IPCC-46.

9. Approves the Terms of Reference for the Ad Hoc Task Group on the Financial Stability of the IPCC (ATG-Finance), as presented in **Appendix 1**.

10. Requests the Working Group Bureaux, when taking decisions regarding the work programme of the full Sixth Assessment cycle, to minimize costs on the Trust Fund, including consideration of the number of journeys.

11. Notes that **Annex 4** attached to document IPCC-XLV/Doc.2, containing the list of 2016 in-kind contributions (August –December 2016) as amended. The revised table is attached to these decisions as **Appendix 2**.

## REVISED 2017 BUDGET ADOPTED BY IPCC-XLV

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
<b>Governing bodies</b>				
IPCC-45 4 days	Programme and budget Approval outline SRs	480,000 120 journeys	280,000	760,000
IPCC-45 1 day	Briefing for developing countries (pilot)	0	70,000	70,000
IPCC-46 + WG I, II, III 5 days	Programme and budget Approval AR6 outline	720,000 180 journeys	350,000	1,070,000
Bureau 4 days	2 sessions	0	120,000	120,000
Executive Committee 4 days	2 sessions and consultations	0	10,880	10,880
TFB	1 session	36,000 9 journeys	6,120	42,120
UNFCCC and other UN meetings		80,000 20 journeys	0	80,000
<b>SUB-TOTAL</b>				<b>2,153,000</b>
<b>Lead Authors, scoping, expert meetings and workshops</b>				
Scoping meeting (SR 2)	1 meeting	200,000 50 journeys	34,000	234,000
Expert meeting - Mitigation, Sustain & Climate Scenarios	1 meeting	120,000 30 journeys	20,400	140,400
SR 1 (1.5°C) LA 1, LA 2 and LA 3	CLA/LA	600,000 150 journeys	102,000	702,000
SR 2 (Land) LA 1	CLA/LA	236,000 59 journeys	40,120	276,120
SR 3 (Oceans) LA 1	CLA/LA	180,000 45 journeys	30,600	210,600
Scoping meeting (AR6)		480,000 120 journeys	81,600	561,600
TFI Methodological devt. Lead Author meetings	4 meetings	848,000 212 journeys	144,160	992,160
TGICA	1 meeting	48,000 12 journeys	8,160	56,160
EFDB Editorial Board	1 meeting	96,000 24 journeys	16,320	112,320
EFDB Data meeting	1 meeting	40,000 10 journeys	6,800	46,800
EFDB and Software Users Feedback, Japan	1 meeting	44,000 11 journeys	0	44,000
<b>SUB-TOTAL</b>				<b>3,376,160</b>
<b>Other Expenditures</b>				
2006 GL software	maintenance/development			30,000
EFDB maintenance	update/management			7,000
Publication/Translation	IPCC publications			100,000
Communication	AR6 material/travel/events			260,500
Distribution	IPCC publications			100,000
IT Infrastructure	web hosting/cloudflare/upgrade			13,128
Library facility	one-time fee (moved from 2016)			103,000
Webconferences	licences & communication costs			30,000
External Audit	fee			20,000
Advisory Services	Conflict of Interest			15,000
Co-Chairs	support			200,000
<b>SUB-TOTAL</b>				<b>878,628</b>
<b>Secretariat</b>				
Secretariat	staff costs/misc expenses			1,912,500
Resource Mobilization	travel costs (Phase I: 2017-2019)			15,800
<b>SUB-TOTAL</b>				<b>1,928,300</b>
<b>TOTAL</b>				<b>8,336,088</b>

Moved from 2016 to 2017 and already approved in IPCC-43.

New activity as compared to budget approved at IPCC-44 subject to Panel approval at IPCC-45

**FORECAST 2018 BUDGET NOTED BY IPCC-XLV**

<b>Activity</b>	<b>Purpose</b>	<b>DC/EIT support</b>	<b>Other Expenditure</b>	<b>Sub-total</b>
<b>Governing bodies</b>				
IPCC-47* 4 days	Programme and budget various	480,000 120 journeys	280,000	760,000
IPCC-48 4 days	Programme and budget Acceptance SR1	480,000 120 journeys	280,000	760,000
Bureau 4 days	2 sessions	0	120,000	120,000
Executive Committee 4 days	2 sessions and consultations	0	10,880	10,880
TFB	1 session	36,000 9 journeys	6,120	42,120
UNFCCC and other UN meetings		80,000 20 journeys	0	80,000
<b>SUB-TOTAL</b>				<b>1,773,000</b>
<b>Lead Authors, scoping, expert meetings and workshops</b>				
WG I AR6 LA 1	CLA/LA	400,000 100 journeys	68,000	468,000
WG II AR6 LA 1	CLA/LA	400,000 100 journeys	68,000	468,000
SR 1 (1.5°C) LA 4	CLA/LA	180,000 45 journeys	30,600	210,600
SR 2 (Land) LA 2 and LA 3	CLA/LA	528,000 132 journeys	89,760	617,760
SR 3 (Oceans) LA 2 and LA 3	CLA/LA	360,000 90 journeys	61,200	421,200
Expert meeting - Science of Communicating Science	1 meeting	80,000 20 journeys	13,600	93,600
Workshop on Cities (co-sponsored)	1 workshop (moved from 2017)	200,000 50 journeys	34,000	234,000
TFI Methodological devt. Science meeting	1 meeting	60,000 15 journeys	10,200	70,200
TFI Methodological devt. Lead Author meetings	2 meetings	872,000 218 journeys	148,240	1,020,240
TGICA	1 meeting (contingency)	48,000 12 journeys	8,160	56,160
EFDB Editorial Board	1 meeting	96,000 24 journeys	16,320	112,320
EFDB Data meeting	1 meeting	40,000 10 journeys	6,800	46,800
EFDB and Software Users Feedback (Japan)	1 meeting	44,000 11 journeys	0	44,000
<b>SUB-TOTAL</b>				<b>3,862,880</b>
<b>Other Expenditures</b>				
2006 GL software	maintenance/development			6,000
EFDB maintenance	update/management			7,000
Publications/Translations	IPCC publications			200,000
Communication	AR6 material/travel/events			260,500
Distribution	IPCC publications			100,000
Webconferences	licences & communication costs			30,000
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
<b>SUB-TOTAL</b>				<b>851,628</b>
<b>Secretariat</b>				
Secretariat	staff costs/misc expenses			1,912,500
Resource Mobilization	travel costs (Phase I: 2017-2019)			15,600
<b>SUB-TOTAL</b>				<b>1,928,100</b>
<b>TOTAL</b>				<b>8,415,608</b>

New activity as compared to budget noted in IPCC-42 subject to Panel approval in IPCC-46  
All other activities with no colour are also subject to Panel approval in IPCC-46

\* Plenary session to be removed pending changes to AR6 Strategic Planning Schedule

## INDICATIVE 2019 BUDGET NOTED BY IPCC-XLV

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
<b>Governing bodies</b>				
IPCC-49 4 days	Programme and budget Acceptance MR	480,000 120 journeys	280,000	760,000
IPCC-50 4 days	Programme and budget Acceptance SR 2	480,000 120 journeys	280,000	760,000
IPCC-51 4 days	Programme and budget Acceptance SR3	480,000 120 journeys	280,000	760,000
Bureau 4 days	2 sessions	0	120,000	120,000
Executive Committee 4 days	2 sessions and consultations	0	10,880	10,880
TFB	1 session	36,000 9 journeys	6,120	42,120
UNFCCC and other UN meetings		80,000 20 journeys	0	80,000
<b>SUB-TOTAL</b>				<b>2,533,000</b>
<b>Lead Authors, scoping, expert meetings and workshops</b>				
WG I AR6 LA 2 and LA 3	CLA/LA meeting	800,000 200 journeys	136,000	936,000
WG II AR6 LA 2	CLA/LA meeting	400,000 100 journeys	68,000	468,000
WG III AR6 LA 1 and LA 2	CLA/LA meeting	800,000 200 journeys	136,000	936,000
SR 2 (Land) LA 4	CLA/LA meeting	292,000 73 journeys	49,640	341,640
SR 3 (Oceans) LA 4	CLA/LA meeting	180,000 45 journeys	30,600	210,600
SYR AR6	Scoping meeting 2	160,000 40 journeys	27,200	187,200
SYR AR6	CWT-1 meeting	60,000 15 journeys	10,200	70,200
TGICA	1 meeting (contingency)	48,000 12 journeys	8,160	56,160
EFDB Editorial Board	1 meeting	96,000 24 journeys	16,320	112,320
EFDB Data meeting	1 meeting	40,000 10 journeys	6,800	46,800
EFDB and Software Users Feedback (Japan)	1 meeting	44,000 11 journeys	0	44,000
TFI Methodological devt	1 prep meeting before Plenary (moved from 2017)	80,000 20 journeys	0	80,000
TFI Expert meeting	1 meeting (contingency)	100,000 25 journeys	17,000	117,000
<b>SUB-TOTAL</b>				<b>3,605,920</b>
<b>Other Expenditures</b>				
2006 GL software	maintenance/development			6,000
EFDB maintenance	update/management			7,000
Publications/Translations	IPCC publications			200,000
Communication	AR6 material/travel/events			260,500
Distribution	IPCC publications			100,000
Webconferences	licences & communication costs			30,000
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
<b>SUB-TOTAL</b>				<b>851,628</b>
<b>Secretariat</b>				
Secretariat	staff costs/misc expenses			1,912,500
Resource Mobilization	travel costs (Phse I: 2017-2019)			15,600
<b>SUB-TOTAL</b>				<b>1,928,100</b>
<b>TOTAL</b>				<b>8,918,648</b>

New activity as compared to budget noted in IPCC-43 & IPCC-44, subject to Panel approval in IPCC-48  
All activities subject to Panel approval in IPCC-48

## INDICATIVE 2020 BUDGET NOTED BY IPCC-XLV

Activity	Purpose	DC/EIT support	Other Expenditure	Sub-total
<b>Governing bodies</b>				
IPCC-52 4 days	Programme and budget	480,000 120 journeys	280,000	760,000
IPCC-53 4 days	Programme and budget	480,000 120 journeys	280,000	760,000
Bureau 4 days	2 sessions	0	120,000	120,000
Executive Committee 4 days	2 sessions and consultations	0	10,880	10,880
TFB	1 session	36,000 9 journeys	6,120	42,120
UNFCCC and other UN meetings		80,000 20 journeys	0	80,000
<b>SUB-TOTAL</b>				<b>1,773,000</b>
<b>Lead Authors, scoping, expert meetings and workshops</b>				
WG I AR6 LA 4	CLA/LA meeting	400,000 100 journeys	68,000	468,000
WG II AR6 LA 3 and LA 4	CLA/LA meeting	800,000 200 journeys	136,000	936,000
WG III AR6 LA 3 and LA 4	CLA/LA meeting	800,000 200 journeys	136,000	936,000
SYR AR6	CWT-2 meeting	60,000 15 journeys	10,200	70,200
SYR AR6	CWT-3 & CWT-3bis meetings	120,000 30 journeys	20,400	140,400
TGICA	2 meetings contingency	96,000 24 journeys	16,320	112,320
EFDB Editorial Board	1 meeting	96,000 24 journeys	16,320	112,320
EFDB Data meeting	2 meetings	80,000 20 journeys	13,600	93,600
EFDB and Software Users Feedback (Japan)	1 meeting	44,000 11 journeys	0	44,000
TFI Expert meeting	1 meeting contingency	100,000 25 journeys	17,000	117,000
<b>SUB-TOTAL</b>				<b>3,029,840</b>
<b>Other Expenditures</b>				
2006 GL software	maintenance/development			6,000
EFDB maintenance	update/management			7,000
Publications/Translations	IPCC publications			200,000
Communication	AR6 material/travel/events			260,500
Distribution	IPCC publications			100,000
Webconferences	licences & communication costs			30,000
IT Infrastructure	web hosting/cloudflare/upgrades			13,128
External Audit	fee			20,000
Advisory Services	Conflict of Interest			30,000
Co-Chairs	support			200,000
<b>SUB-TOTAL</b>				<b>866,628</b>
<b>Secretariat</b>				
Secretariat	staff costs/misc expenses			1,912,500
Resource Mobilization	travel costs (Phase II: 2020-2022)			15,800
<b>SUB-TOTAL</b>				<b>1,928,300</b>
<b>TOTAL</b>				<b>7,597,768</b>

All activities subject to Panel approval in IPCC-51



## Terms of Reference for the Ad Hoc Task Group on the Financial Stability of the IPCC

### 1. PURPOSE

The purpose of the Ad Hoc Task Group on the financial stability of the IPCC (ATG) is to propose, for consideration by the Panel, funding options, and implications therein, which aim to provide predictable, sustainable and adequate means for a smooth implementation of the IPCC's programme of work.

### 2. MEMBERSHIP

The ATG has the following core membership:

Members

1. Core members of the Financial Task Team
2. Co-Chairs of the Financial Task Team
3. Secretary and Deputy Secretary

The group is open to government representatives.

The ATG is co-chaired by two of the Vice Chairs of the IPCC, Thelma Krug, Brazil, and Youba Sokona, Mali.

### 3. ROLES AND RESPONSIBILITIES

The ATG will identify matters affecting the financial stability of the IPCC and submit to the Panel a report that includes options for:

1. increasing the contributions from governments, including in-kind contributions, and broadening the donor base in terms of contributing governments;
2. exploring means to mobilize additional resources, including from UN organizations and others (e.g., UNEP, GEF, GCF), and evaluating their potential implications, in particular issues related to conflict of interest and legal matters; and
3. providing guidance on the eligibility of potential donors, including the private sector.

The ATG will seek to reflect in the report experiences and lessons learnt from other international organizations.

### 4. MODUS OPERANDI

The ATG will work under the leadership of the co-chairs to establish a work plan, and communicate preferentially via electronic correspondence. The group will hold teleconferences as appropriate and required for the advancement of the work.

The ATG will work in close collaboration with the Financial Task Team.

The Secretariat of the IPCC will provide advisory, legal and administrative support to the ATG, as needed

### 5. TERM

The ATG will initiate its work immediately after the 45th Session of the IPCC and continue its activities until the time of the 46th Session of the IPCC, which is provisionally scheduled for September 2017. At this meeting its term will be reviewed.

**List of In-kind Contributions/Activities  
(August – December 2016)**

(In the following cases no financial support for hosting/meeting facilities was provided by the IPCC Trust Fund)

Government/Institution	Activity	Type
France	Technical Support Unit – WG I	Hosting
China	Technical Support Unit – WG I	Hosting
Germany	Technical Support Unit – WG II	Hosting
South Africa	Technical Support Unit – WG II	Hosting
India	Technical Support Unit – WG III	Hosting
United Kingdom	Technical Support Unit – WG III	Hosting
Japan	Technical Support Unit – TFI	Hosting
Peru	Technical Support Unit – TFI	Hosting
Germany	IPCC Data Distribution Centre	Hosting
United Kingdom	IPCC Data Distribution Centre	Hosting
United States of America	IPCC Data Distribution Centre	Hosting
WMO	Post of Secretary of the IPCC	Salary
UNEP	Post of Deputy Secretary of the IPCC	Salary
Republic of Korea	IPCC-43, Nairobi, Kenya (11-13 April 2016)	Reception
Thailand	IPCC-44, Bangkok, Thailand (17-20 October 2016)	Reception
Monaco	Scoping Meeting on Special Report on Oceans and the Cryosphere (6-9 December 2016)	Hosting

**INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE**

**45<sup>TH</sup> SESSION OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE  
Guadalajara, Mexico, 28 – 31 March 2017**

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