

Check against delivery

“The IPCC after the Paris Agreement”, event of the Geneva Environment Network

16 June 2016, 15:00

Hoesung Lee, IPCC Chair

*(13 minutes)*

Thank you, Jonathan.

Your Excellency, Ambassador Laurin, Permanent Representative of France,  
Your Excellency, Ambassador Choi, Permanent Representative of the Republic of  
Korea,  
Ms Tsutsumi, Representative of the United Nations Environment Programme,  
Mr Cullmann, Representative of the World Meteorological Organization,  
Mr Romero, Representative of the Swiss Federal Office for the Environment,  
Excellencies, Ladies and Gentlemen,

Firstly, I would like to take this opportunity to thank the Geneva Environment Network, the Permanent Mission of France, the Permanent Mission of the Republic of Korea and the Swiss Federal Office for the Environment for organizing this event.

I'm truly honoured today to have the opportunity to tell you about the current work of the IPCC, in particular how it is responding to the challenges set out by the Paris Agreement.

The IPCC exists to provide policymakers with policy-relevant but neutral information about climate change, its causes and impacts, possible future risks and options for tackling it. In other words, our scientific work is conducted within, and in awareness of, a surrounding policy environment and process.

We are at the start of two interlinked journeys. Last October the IPCC elected a new Bureau to oversee work on the scientific reports that we will produce during the Sixth Assessment Cycle. And last December nations came together to reach the Paris Agreement at the climate talks. Over 170 countries signed the Paris Agreement in April, the ratification process is underway, and work is starting on preparing for its implementation. The Paris Agreement and related decision both reflect the previous findings of the IPCC, and greatly affect what we will be doing in the next six years.

Furthermore, four weeks ago at the summer meetings of the UNFCCC subsidiary bodies, scientists, including the IPCC, and policymakers examined the information

gaps that researchers need to address in the coming years, and look at how the IPCC can feed into the policy process.

The IPCC has been busy in this time too, and I would like to discuss with you the priorities and challenges that the IPCC faces in the post-Paris period.

The agreement and related decisions shape our work in a number of ways. Firstly, COP21 invited the IPCC to produce a special report on the impacts of global warming of 1.5 degrees Celsius and the related emissions pathways. The COP also agreed that the global stocktake – the five-yearly reviews of progress on curbing emissions to reach the global warming targets – will use the latest reports of the IPCC as one of its inputs.

Two months ago the IPCC met to map out its work-plan for the coming years in the light of these developments. Most topically, we accepted the invitation of the COP to produce the 1.5-degree report, to be delivered in 2018 in time for the facilitative dialogue that the UNFCCC will hold that year. This will be of great interest to policymakers, because at the time of our last comprehensive report, the Fifth Assessment Report, there was relatively little information about the impact of 1.5 degrees warming. For instance we know that limiting warming to less than 1.5 degrees would allow some warm-water coral reefs to survive, but there are many gaps to our knowledge. The Paris decision to pursue efforts to limit warming to 1.5 degrees has catalysed the research community and there will be plenty of material for us to assess.

As you can imagine, there is enormous interest in this report. The IPCC received nearly 600 nominations for experts to take part in the scoping meeting in August that will draw up the contents and structure of the report.

Policymakers also asked us to undertake two further special reports in the coming years: one on climate change, oceans and the cryosphere – looking at the interplay between the vulnerability of ice-sheets and sea-level rise and generally at sustainability issues related to oceans and coastal regions – and one on climate change and desertification, land degradation, sustainable land management, food security and greenhouse gas fluxes in terrestrial ecosystems. This is highly policy-relevant as weakening food and water security can undermine development and aggravate the forces leading to human displacement, that is contribute to instability.

Both these reports will of course also look carefully at solutions to the problems raised. Preparations for these two reports have also started.

We will also update the methodologies that countries use to measure and report their greenhouse gas emissions and removals – crucial for tracking progress on their commitments under Paris – and we will produce future assessments in line with the five-yearly rhythm of the global stocktake rather than the 6-7 years we have had recently. The Sixth Assessment Report itself will be completed in 2022, in good time for the first global stocktake in 2023.

Our member states asked us to pay special attention in the Sixth Assessment Report to the particular issues of climate change and cities – where, already housing over half the world's population, there are so many specific challenges and opportunities for adaptation and mitigation.

Now, sometimes we hear the question, why do we need another set of IPCC reports. After all the last one was quite explicit: “human influence on the climate system is clear” and “warming of the climate system is unequivocal”.

Well, there are still many areas where our knowledge is incomplete: I have already mentioned sea-level rise, for example. Let me spell out a few of the research gaps:

- 1.5 degree pathways will require earlier and more aggressive mitigation action. We need research to improve the technical and economic performance of energy efficiency, renewable energy, energy storage and other mitigation options. Some jurisdictions have effective mitigation policies, but we don't yet know how to implement them internationally.
- Some 2-degree pathways rely on negative emissions or geo-engineering measures during the latter part of the century. They may play a larger role in 1.5 degree pathways, so we need to learn a lot more about those options, including biomass combustion with CCS, biochar and biomass burial, ocean geo-engineering, and solar radiation management.
- For the special report on oceans and cryosphere we need research on the consequences of changes in precipitation on Antarctic sea ice thickness and volume, and on potential "tipping points" in ocean circulation patterns and the disintegration of ice sheets.

- For the special report on land use issues we need modelling of the potential location and scale of desertification and land degradation due to climate change. We need to understand the relationships between climate, food production, and human security, including the potential for adaptation and impacts on migration.

There is another important set of information gaps. We have a good picture of climate change and its impacts globally, but know far too little about how it is playing out at the local level, which is of course the most policy-relevant. We would like to see the research community in developing countries tackle these questions and provide us with scientific literature that can feed into future assessments. We also hope that developing countries will nominate more scientists as IPCC authors across the range of topics that we assess – please pass on that message in your contacts with colleagues from developing countries.

More generally, the forthcoming reports will see a shift of emphasis. As you know, we are now entering the phase of turning commitments into implementation. Accordingly, the IPCC reports will look more closely at solutions. We need a better understanding now of the economics of climate change – the costs and benefits of action and inaction. We need to improve our understanding of the institutional implications of different policy options.

As you can see, the IPCC has a very substantial programme of work in front of it for the coming few years. We will again need experts to contribute generously with their time and expertise to work as authors and reviewers of our reports. Moreover, our own analysis shows that the IPCC Trust Fund could run out of savings by 2018, which could adversely affect the completion of the Sixth Assessment Report and the Special Reports that I have described. So to those of you present who have the ears of your governments, we also need generous financial support.

Excellencies, Ladies and Gentlemen, all this means that the IPCC has a rich and ambitious scientific agenda for the coming years. The global community too has set itself ambitious tasks on climate change and sustainability: with the help of science it will face this challenge. Thank you.