

**CHECK AGAINST DELIVERY**

**Responding to Paris: the IPCC's programme for the coming years**

**IPCC side event at COP22**

**14 November 2016**

Thank you Jonathan. The IPCC's current work programme can best be understood in the context of the decisions taken a year ago at COP21 when the Paris Agreement was struck. The COP decided:

- to invite the IPCC to prepare a special report on the impacts of global warming of 1.5°C and related emissions pathways;
- to ask parties to report regularly on emissions and removals by using IPCC methodologies (Article 13); and
- to use the latest reports of the IPCC as an input into the global stocktake

In addition, the IPCC is examining how it can align its work with the five-yearly stocktake process, something under discussion here at SBSTA.

The IPCC has responded positively to this agenda. At our session in April, we included the special report on 1.5 degrees in the list of special reports to be produced in this cycle. We held the scoping meeting in August, and at the IPCC session last month we approved the outline of *Global Warming of 1.5°C*. We are currently seeking nominations for authors – the deadline is 11 December – and the special report will be delivered in 2018 in time for the facilitative dialogue later that year at COP24. Thelma will provide you with more details of this extremely important and eagerly awaited report.

The April session of the IPCC also decided to update our methodologies, given the central role they play in the transparency mechanism of the Paris Agreement. We have scoped out that report, and approved the outline of the *2019 Refinement to the 2006 IPCC Guidelines* at our session last month. Again, we are seeking nominations for authors, with a deadline of 9 December. Kiyoto will tell you more about that.

Our next comprehensive assessment, the Sixth Assessment Report will be finalized in 2022, with its Synthesis Report, in time for the first global stocktake in 2023.

As you know, the IPCC in recent years has produced its assessments every 6 or 7 years. So the Panel is now examining how to align our production with the new five-yearly rhythm of the stocktake. We intend to have proposals for that in 2018.

What else is the IPCC doing? Besides *Global Warming of 1.5°C* we will prepare two other special reports – one on climate change and oceans and the cryosphere and one on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. These two highly policy-relevant special reports will be delivered in 2019. We will scope the oceans report in three weeks' time in Monaco, and the land issues report, if I may call it that for short, in February next year. Both outlines will be submitted for approval in April with the call for nominations for authors immediately afterwards.

This list of special reports, on top of the methodology update and regular assessment, represents the most ambitious work programme ever undertaken by the IPCC, and we are now working at full capacity.

When we looked at the special reports in April, among the many topics up for discussion was climate change and cities. Cities already house half the world's population and that proportion is rising, so give rise to many opportunities as well as challenges of mitigation and adaptation. We decided that cities would get their own special report in the next assessment cycle. In the meantime we will pay particular attention to this topic in AR6. We also hope to encourage research in this area by co-sponsoring a workshop on climate change and cities in 2018.

With AR5 and our earlier assessments we have a relatively good global picture of global climate change. There are some basic scientific questions we need more information on in AR6, and we also hope to add to knowledge about the more policy-relevant local and regional levels.

Generally speaking, with the focus now on implementing the Paris Agreement, we will put more of an emphasis on solutions. So experts from the social sciences, economics, psychology and so on will be called up to help us improve our understanding of the economics of climate change – the costs and benefits of action and inaction and of the institutional implications of different policy options. In this context we need to move away from the phrase “business as usual”. In my view business would be very far from usual in a world of warming of four degrees or more.

Basic climate science can also contribute to solutions. Improving our understanding of the climate system, for example through enhanced monitoring, better knowledge of processes and improved models contributes to solutions by strengthening disaster risk reduction and understanding potential consequences of climate action.

The barriers to a zero-carbon society do not arise in science; after all, we already know enough to take action on the path to a carbon-free economy, and that was one of the key messages of the

Fifth Assessment Report in 2013/2014 and its predecessor, the Fourth Assessment Report in 2007. Most of the barriers are economic, social, institutional and political.

That said, there are significant gaps in our knowledge about the challenges and risks associated with some of the technologies that have been mentioned as contributing to a carbon-free economy. These include carbon dioxide removal (CDR), afforestation, and BECCS – the combination of bio-energy and CCS, where CO<sub>2</sub> is absorbed from the atmosphere by growing bio-matter such as trees which are then burned in power plants while sequestering the resulting emissions. We do not yet know enough about the extent to which these technologies can be scaled up, and hence what their potential is. Planting forests to absorb carbon or provide energy would eventually run up against the need for land for food. Examining these questions will be another focus of our forthcoming reports.

Earlier today the WMO announced that 2016 was set to be the hottest year on record, breaking even the record heat of 2015. Of course, we look at the long-term trend rather than one year's data, but if confirmed it would mean that 16 of the 17 hottest years on record have been this century (with the 17<sup>th</sup> being 1998). So this is a reminder that the climate is not standing still.

The policy context has also changed. Even before the start of this COP, the Paris Agreement had come into force, crossing the ratification thresholds in record time. While we are here, major economies continue to ratify the accord. A few weeks ago we also saw agreement on offsetting the increase in aviation emissions, and an amendment to the Montreal Protocol to phase down HFCs, which some say could save half a degree of warming. Governments have shown they are ready to act. We can no longer say that policymakers are ignoring the voice of science. Now it is up to the scientific community to give policymakers the robust scientific evidence they require to formulate sound climate policy. The work programme I have outlined will do just that. Thank you for your attention.