IPCC Approval of the Special Report on 1.5°C
Debriefing from the plenary and main messages

After intense and overnight discussions, the IPCC 48th plenary succeeded to approve the Special Report on 1.5°C, well behind schedule. This "special Special Report" on 1.5°C will be a critical piece informing the Talanoa dialogue and the next round of NDCs. This was a political request by governments when they adopted the Paris Agreement in December 2015 at the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC).

This briefing:

1. Proposes key messages coming out of the Special Report on 1.5°C.
2. Analyses the plenary and explores interactions with further ICP Hub work for the coming weeks until COP24

WHY A SPECIAL REPORT ON 1.5°C, AND WHAT IS AT STAKE?

The document approved is the Summary for Policy Makers (SPM) of a special report titled "Global Warming of 1.5 °C, an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty" or SR 1.5. Please find here the official SR 1.5 Headlines.

The 30+ page report contains four sections, and relies on more than 6000 scientific papers, and hundreds of pages from the five underlying chapters.

This work represents a tremendous effort from the scientific community, which, just after COP21 was mostly confused and, for the most part, reluctant about doing such a report because of the small amount of scientific literature available around 1.5°C at the time. Nonetheless, the political ask drove an enormous amount of research and this special report is the outcome of very intense work over the past 3 years.

This report should be the scientific compass to drive ambition for the Talanoa Dialogue at COP24, and beyond at the UNSG Summit. For countries, it should be guiding ambition for the new round of NDCs expected before 2020.

WHAT DOES THE REPORT SAY?

The messages below come from the SPM and the underlying chapters, the Summary for Policy Makers, as its name indicates, contains only "high level” messages:

MAIN SUGGESTED POLITICAL TAKEWAYS:

General messages about the report

- The topic of 1.5°C is relatively new for the scientific community, and with more than 6,000 scientific papers examined, 42,000 comments received from experts and governments, this report on 1.5°C of warming is a one of a kind: for the first time in 30 years of IPCC history, a report is produced by the three working groups together, in an integrated and comprehensive manner.
- The scientists should be congratulated. Now that the report is approved by all governments: it is a critical piece to drive ambition and to get us on track with the Paris goals.
- The Paris Agreement drove the scientific community to look for answers to the following questions:
What would be required to limit warming to 1.5°C (mitigation pathways);
What are the impacts of 1.5°C of warming, compared to 2°C and higher;
How to strengthen the global response to climate change/ mitigation and adaptation options.

1.5°C: Where are we now?

- Temperatures are already up more than 1°C compared to pre-industrial levels and are rising at a rate of 0.2°C per decade, thus a 1.5°C warmer world is not far off if the business as usual path continues to be followed.
- Risks are not only higher at 2°C compared to 1.5°C, but are riskier than previously thought. Risks are lower if global warming stabilises compared to an overshoot situation.
- Economic growth is projected to be lower at 2°C warming than at 1.5°C, whereas impacts (sea level rise, warmer temperatures, extreme weather events) and their consequences will be higher, and more costly.
- Current climate plans (NDCs) will not be enough, thus we need to have rapid and far reaching transitions, to act quicker and faster.

It is feasible, and every fraction of degree matters

- Although a complex task, scientists tell us it is a feasible one and that the costs and consequences could be far higher if we keep the same emission trajectory. In addition, 1.5°C consistent pathways can present numerous co-benefits ( economical, social and environmental).
- Keeping warming to 1.5°C has far more synergies than tradeoffs with SDGs. This is especially true for reducing poverty, ensuring good health and promoting well-being for all.
- Scientists tell us it is feasible to limit temperature rise to 1.5°C and avoid the worst impacts if we make radical emissions cuts now and if we redirect financial flows and enable conditions for the needed transitions. It depends on political choices.
- It is technically feasible, even without using the Bioenergy Carbon Capture and Storage (BECCS) which is probably the least controversial of the geoengineering technologies.
- IPCC scientists provide barriers and also potential solutions which should now be taken on board by policy makers.

On Impacts and risks

- Global warming of 2°C compared to 1.5°C would not only substantially increase extremes (e.g. cyclones, heavy precipitation events, extreme droughts), but also imply high risks of impacts on biodiversity and ecosystems and potential irreversible impacts with temperature overshoot (e.g. Arctic sea ice ecosystems and coral reefs).
- A world at 2°C compared to 1.5°C would also mean an additional 0.1m of sea level rise, increasing salt water intrusions, flooding, damage to coastal infrastructures and putting more people expected to be at risk (2°C vs. 1.5°C).
- At 1.5°C warming, there will be impacts on several sectors and there will be an effect on underlying potential for economic growth; and adaptation is required within the assessed sectors of energy, land and ecosystems, urban, industrial as well as cross sectors (Disaster Risk Management, health, education).

On the 1.5°C Emission pathways and system transitions

- To limit overshoot with potential irreversible consequences, greater emission reductions is due well before 2030, and achieving net zero CO2 emissions has to happen mid-century. Non CO2 gases (such as methane - CH4) are part of the problem, but also the solution.
- 1.5°C consistent pathways can have different levels of Carbon Dioxide Removal (CDR) (limited geophysical understanding), even without Bioenergy Carbon capture and Storage (BECCS). Behavioral changes, demand reduction policies and emission reduction policies are key. Forest and agriculture sectors have an important role to play in sequestrating carbon.
- 2°C or 1.5 °C have similar pathways, but the speed and scale required are not the same.
- Renewables are projected to supply 50-65% of primary energy.

Strengthening the global response
• Actual climate plans (NDC) are leading us to a more than 3°C world. **Next round of NDC have to be more ambitious.**

• Finance (subsidies reforms, carbon pricing, de-risking of investments, etc.), technology (e.g renewables) and behavioral changes are key to overcoming barriers to the implementation of the needed mitigation and adaptation actions.

• **Investments in low carbon technologies and energy efficiency will need to double when fossil fuel extraction decreases by 1/4 in the next two decades.**

• There is a need for **enhanced cooperation** and the strengthening of institutional capacities at various levels and with various stakeholders (civil society, private sector, cities, local communities and Indigenous people).

**WHAT'S NEXT?**

Please use the messages above in communication strategies to increase the political momentum towards COP24.

• It will be key to keep the IPCC Special Report on 1.5°C high on the agenda after this week’s media coverage when preparing and during COP24 and in the run up to the UNSG Summit.

• It is important to keep in mind that, in 2019, two other special reports will be published: (1) **Climate Change and Land**, and (2) the **Ocean and Cryosphere in a Changing Climate**, along with a revised version of the IPCC’s 2006 Guidelines on National Greenhouse Gas Inventories (the latter focuses on very technical issues, which could ultimately have strong political implications). The three Working Group contributions to the Sixth Assessment Report will be published in 2021, and 2022, just ahead of the first Global Stocktake in 2023.

• The **IPCC have some resources to propose events in developing countries to explain the findings of this special report**, and interact with the scientific communities, policymakers and stakeholders.