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## IPCC STATEMENT

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### Statement on the 30<sup>th</sup> anniversary of the IPCC First Assessment Report

IPCC Chair Hoesung Lee

GENEVA, 31 Aug – Thirty years ago the Intergovernmental Panel on Climate Change, not yet two years old, completed its First Assessment Report (FAR), with the approval of the report's [Overview](#) at the Fourth Session of the IPCC in Sundsvall, Sweden.

Today, IPCC authors are busy working on the Sixth Assessment Report (AR6), in the midst of challenging conditions due to the impacts of the COVID-19 pandemic. Since the First Assessment Report, all IPCC reports have provided policymakers and the public with a robust, rigorous, exhaustive and transparent assessment of the state of knowledge of climate change. Specifically, over the years, the work of the IPCC has shown constant improvements in understanding, scope, policy relevance and interdisciplinarity. This has largely contributed to a massive increase in public awareness of climate change, and a greater readiness of governments and other actors to address the challenge.

#### Progression in understanding

Then as now, each report provides an assessment of confidence in findings, and identifies key sources of uncertainties and knowledge gaps, which contributes to the maturation of knowledge and the stimulation of further research.

From the First to the Fifth Assessment Report (AR5), there has been substantial progress in understanding of climate science.

To give just one example, on the attribution of the causes of climate change, the First Assessment Report reported global warming and sea level rise, and stressed :

“Emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gases (...) These increases will increase the greenhouse effect, resulting on average in an additional warming of the Earth’s surface. (...) The unequivocal detection of the enhanced greenhouse effect from observations is not likely for a decade or more.”

Since the First Assessment Report, global greenhouse gas emissions have continued to increase, leading to further global warming, with characteristics that had been correctly anticipated in the first generations of climate models.

The Synthesis Report of the Fifth Assessment Report in 2014 stated that :

“Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems.”

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This improved understanding over the course of the past three decades can be explained by exponential rise in publications of scientific literature related to climate change, meaning that the number of scientific publications to be assessed in each IPCC report has grown.

Indeed, for the 2018 and 2019 IPCC Special Reports on *Global Warming of 1.5°C*, *Climate Change and Land*, and on *the Ocean and Cryosphere in a Changing Climate*, IPCC authors assessed around 20,000 publications and considered around 100,000 comments from more than 2,500 experts and governments in preparing these three special reports.

### **Progression of scope and content**

Over time, the focus of IPCC reports has expanded from establishing the nature of the climate problem to zooming into regional characteristics of climate risks of impacts and exploring possible solutions to the challenge of climate change and impacts from the response options. This has led to the range of disciplines included in the assessment also expanding over the years, and the IPCC has played a key role in the integration of knowledge across research disciplines.

The First Assessment Report puts together emerging thoughts in economic and social issues of climate change, recognising that most socio-economic impacts and consequences will be “major” and “considerable”, in spite of uncertainties.

The First Assessment Report stated with confidence that carbon dioxide (CO<sub>2</sub>) is responsible for over half of the greenhouse gas effect in the past, and that continued “Business as Usual” emissions would commit us to increased concentrations for centuries.

It acknowledged that there were many uncertainties particularly with regard to the timing, magnitude and regional patterns, and that predictions were on the conservative side, with climate change likely to be greater.

The report was clear that the potentially serious consequences of climate change gave sufficient reasons to begin adopting response strategies that could be justified immediately – then – even in the face of significant uncertainties.

When we look back at the First Assessment Report, we are also struck by the continuities with our current work. Already in the First Assessment Report we had a contribution looking at solutions from Working Group III, then called the Response Strategies Working Group.

The First Assessment Report found that sustainable development should be the basis for continued economic growth in both industrialised and developing countries and that the most effective response strategies were those that were beneficial for reasons other than climate change; cost effective and compatible with sustainable economic growth; serving multiple socio-economic and environmental purposes; flexible and phased; and country-specific.

The report also gave options for reducing climate change, including efficiency measures, phasing out chlorofluorocarbons (CFCs), sustainable forestry, clean energy. It stated that “One option that governments may wish to consider is the setting of targets for CO<sub>2</sub> and other greenhouse gases.”

The main message from the Fifth Assessment Report is that the scientific case for urgent action on climate change is clearer than ever. We have very little time before the window of opportunity to stay within 2°C closes forever but we still have that opportunity. The choice is within our hands. The Fifth Assessment Report provides a framework to support good decisions and better integrates adaptation, mitigation, development and equity.

In the Sixth Assessment Report each of the three Working Groups will bring different perspectives to solutions and response options, through assessments of climate information relevant for decision-

making, risk assessment, adaptation, mitigation, climate-resilient development pathways, and sustainable development.

A focus on risks and solutions and their regional specificities will be the hallmark of the Sixth Assessment Report.

This solution orientation underpins the policy relevance of the IPCC, which serves as an interface between the policymaking and scientific communities.

### **Enhanced policy relevance**

At the international level, the First Assessment Report gave impetus to the political process leading to the negotiations for an effective United Nations Framework Convention on Climate Change (UNFCCC), the global body for negotiating climate agreements.

The Second Assessment Report (SAR) was largely influential in defining the provisions of the Kyoto Protocol. The Third Assessment Report (TAR) was influential in defining the rules of meeting the targets set out in the Kyoto Protocol. It also provided strong grounds for starting the process towards the development of a global climate goal. The Fourth Assessment Report informed the decision on the ultimate objective (2°C) and created a strong basis for a post Kyoto Protocol agreement and long-term cooperative action.

The Fifth Assessment Report informed the review of the 2°C objective in the context for preparing the UNFCCC's Paris Agreement, adopted in 2015. The Paris Agreement agrees to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C".

### **Strengthening of the IPCC processes and procedures**

Over the years the IPCC has introduced increasingly rigorous procedures, including a conflict of interest policy, an enhanced role for review editors, and an error protocol, to strengthen confidence in its assessments.

From the start, the IPCC was concerned to ensure the participation of scientists from developing countries in our work. Indeed, alongside the three Working Groups, the IPCC then had a Special Committee on the Participation of Developing Countries, which contributed to the First Assessment Report.

We continue to work on this question, and there is much to do, but we passed an important milestone with the Special Report on *Climate Change and Land*, released last year, where over half of the author team came from developing countries.

### **Toward the Sixth Assessment Report**

Halfway through the AR6 cycle, the COVID-19 pandemic hit, and the IPCC has again risen to the challenge.

Because the pandemic has for now prevented large-scale in-person meetings, all our working groups have reorganized their author coordination activities online, building on the existing use of teleconference and other remote working methods, and enabling us to continue advancing the preparations for the Sixth Assessment Report.

I would like to pay tribute here to the commitment and dedication of our authors and expert reviewers, who volunteer their time and expertise to the IPCC. I also acknowledge the precious support of our member governments and observer organizations, especially those member governments of both developing and developed countries that contribute financial resources to the IPCC Trust Fund.

Further, I acknowledge the valuable contribution of our Bureau members and the staff of our Technical Staff Units and Secretariat at this difficult time.

I am confident, given the scale of new knowledge, and the dedication of authors and expert reviewers, that the Sixth Assessment Report we are now preparing will once again provide policymakers and the public with a robust, rigorous, exhaustive and transparent assessment of the state of knowledge of climate change and do more – providing novel dimensions to our understanding of climate change and the options for addressing it, from knowledge relevant to decision-making in cities and other sub-national levels to a better understanding of the implications of climate action and its costs and benefits for socio-economic development.