## **CHECK AGAINST DELIVERY**

Keynote speech to the 23<sup>rd</sup> Session of the Committee on Forestry (COFO 23) and 5<sup>th</sup> World Forest Week (WFW)

Food and Agriculture Organization of the United Nations (FAO), Rome, 18 July 2016 By Hoesung Lee, Chair of the IPCC

Your Royal Highness Prince Laurent, FAO Special Ambassador for Forests and Environment

Your Excellency Mr Vidar Helgesen, Minister for Climate and Environment of Norway Your Excellency Mr Rafael Pacchiano, Ministry for Environment and Natural Resources of Mexico

Dr Bharrat Jagdeo, Chair of the Committee on Forestry Mr José Graziano da Silva, Director-General of the FAO Excellencies, Distinguished delegates

2015 was a landmark year in the global development agenda. The world agreed the Sustainable Development Goals, and then came together at the 21<sup>st</sup> Conference of the Parties (COP 21) to the UN Framework Convention on Climate Change (UNFCCC) to reach an ambitious agreement on tackling climate change.

This week in Rome we are exploring ways in which forests and sustainable forest management can contribute to the new global objectives.

Today I would like to concentrate on the Paris Agreement, and the challenges for implementation. In particular I would like to look at how the Intergovernmental Panel on Climate Change is supporting governments' efforts to turn climate action into reality, and the role of agriculture and forests in that work.

For our treatment of forests holds one of the keys to tackling climate change. Among the many precious eco-services that the world's forests offer us are sinks for carbon emissions. If we exploit or clear forests indiscriminately we exacerbate global warming. We can use trees to absorb carbon. But there are limits to afforestation – we need land to grow food as well!

In Paris nations set themselves the ambitious goal of holding global warming well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit it to 1.5 degrees. That goal will be reached, not through top-down targets, but by nationally determined contributions set by each country. Parties to the agreement will regularly monitor progress towards the goal, and consider whether their contributions need to be ratcheted up, with a "facilitative dialogue" in 2018 and a first "global stocktake" in 2023 and every five years thereafter.

That agreement reflects the findings of IPCC assessments. Future IPCC reports will feed into the global stocktake process, and our work plan will be aligned with it.

The main findings of our last assessment, the Fifth Assessment Report, or AR5, are:

- Human activity is disrupting our climate
- The more we disrupt our climate the more we risk severe, pervasive and irreversible impacts
- We can make the choice to limit climate change and build a more prosperous world

Specifically, on the subjects we are discussing this week, we found that in 2010, agriculture, forestry and other land use, or AFOLU, accounted for 24% of greenhouse gas emissions, the second biggest contributor after energy. And yet while overall emissions growth accelerated in the first decade of this century to 2.2% a year, that was due to growth in all other sectors – not AFOLU – reflecting a slowdown in deforestation at that time.

Mitigation strategies consistent with a "likely" (i.e. two thirds or more) chance of keeping warming below 2 degrees by the end of the century typically involve a temporary overshoot in concentrations of greenhouse gases. These scenarios then involve negative emissions, often relying on the availability of bioenergy with carbon capture and storage, or BECCS, and afforestation in the second half of the century. The availability and scale of these technologies is uncertain.

These and other uncertainties will be examined in the next set of assessments.

We will start preparations on the Sixth Assessment Report later this year, finishing in 2022 in time for the first global stocktake. In the meantime we will update the methodologies by which countries measure and report their greenhouse gas emissions and removals in 2019, and produce three special reports:

- on the impacts of global warming of 1.5 degrees above pre-industrial levels and related global greenhouse gas emission pathways
- on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, and
- on climate change and oceans and the cryosphere.

Each of these is highly relevant to this community. The report on 1.5 degrees – requested by COP 21 in Paris – will increase our knowledge on the impact on ecosystems of holding warming to only 1.5 degrees. At the time we produced AR5 there was relatively little scientific literature available on this for us to assess. And the sections on emissions pathways will consider the methods and technologies, including BECCS and afforestation, which might take us to that goal.

The topics of the land use report speak for themselves. And the report on oceans will have implications for fisheries management and the health of maritime ecosystems services.

Reflecting the fact that we are now in an implementation phase of dealing with climate change, all of these reports will put a greater emphasis on solutions. At the same time we need to close information gaps on the impact of climate change at the local and regional level.

Areas of research of interest to this community that we will need to examine include work on negative emissions such as biomass combustion with CCS, biochar and biomass burial, ocean geo-engineering and solar radiation management. For the report on land use issues we need modelling of the potential location and scale of desertification and land degradation due to climate change, and we need to understand the increasingly complex dynamic inter-relationships between climate, food production and human security, including the potential for adaptation and impacts on migration.

Failure to take action poses high risk of abrupt and irreversible regional–scale changes in the composition, structure, and function of terrestrial and fresh water ecosystems, leading to substantial additional climate change.

Linkages among water, energy, food/feed/fibre, and climate are strongly related to land use and management, such as afforestation.

Many of these interactions can compromise security of supplies of food, energy and water.

This nexus is increasingly recognized as critical to effective climate resilient pathway decision-making, but tools to support local and regional-scale assessment and decision support remains very limited.

We will lower this barrier through our Sixth Assessment. Agriculture and forestry lie at the heart of efforts to understand and tackle climate change. We believe the efforts of the FAO will be crucial to meeting these aspirations and look forward to collaboration with and support from the FAO. Together the science and policy communities can address this great challenge. Thank you.