

Forests and Climate Change - The Impact of a Global Assessment

By Alexander Buck (GFEP Coordinator) and Tarun K. Bathija (IUFRO, PR & Communications)

"Adaptation of Forests and People to Climate Change", coordinated by IUFRO through the Collaborative Partnership on Forests (CPF) is the first product of the Global Forest Expert Panels (GFEP) initiative. Authored by 35 leading scientists in the field of forestry and climate change, the global assessment provides up-to-date information on the ability of forests to adapt to climate change. The report played a key role during the eighth session of the United Nations Forum on Forests (UNFF) last April.

UNFF welcomed the report

This report presented to more than 600 participants the state of scientific knowledge regarding the current and projected future impacts of climate change on forests and people along with options for adaptation. The UNFF welcomed the report and adopted a resolution on forests in a changing environment taking into account several key messages of the assessment report. Furthermore, it invited the GFEP to continue to provide science-based information relevant to the themes of the Forum.

Social and economic consequences of climate change

Professor Risto Seppälä, Chair of the Expert Panel on Adaptation of Forests to Climate Change, stated that projected increases in frequency and severity of extreme weather events and forest disturbances will have far-reaching social and economic consequences particularly for the forest-dependent poor. At the same time, the assessment indicates that climate change can also have positive effects on forest ecosystem services. As an example, it can increase the supply of timber in some regions and even globally – due to increased tree growth. Professor Seppälä also pointed out the limitations in our current knowledge. More information about the regional and local impacts of climate change, the socio-economic impacts and the effectiveness of management and policy measures of adaptation is still needed.

REGIONAL IMPACTS

Tropical forests: increased productivity where water is available, but decline in dry areas; considerable risk of biodiversity losses.

Subtropical forests: decreased productivity in most parts; risk of severe biodiversity losses.

Boreal forests: particularly affected; increased tree growth in most areas; more fires and pests.

Temperate forests: less affected than other forest types; both increased and decreased tree growth.



"Despite the limitations of current knowledge, climate change is progressing too quickly to postpone adaptation actions pending the outcomes of future studies!"

– Risto Seppälä (Chair of the Expert Panel on Adaptation of Forests to Climate Change)

Making forests fit for change

The side event *Making Forests Fit for Change* organized by IUFRO, allowed more time for in-depth presentations and discussions. Professor Andreas Fischlin, one of the lead authors of the report and a coordinating lead author with the Intergovernmental Panel on Climate Change (IPCC), presented the results of the assessment regarding current and projected environmental impacts of climate change on forests. He especially pointed out the risk of losing the carbon sink regulating service of forests beyond a global warming of 2.5°C relative to pre-industrial levels.

"Even if adaptation measures are fully implemented, unmitigated climate change would, during the course of the current century, exceed the adaptive capacity of many forests", said Professor Fischlin. "The fact remains that the only way to ensure that forests do not suffer unprecedented harm is to achieve large reductions in greenhouse gas emissions."

Professor Jeremy Rayner, another leading author of the report, stated that sustainable forest management (SFM) is integral to reducing the vulnerability of forests to climate change. Therefore, commitment to achieving the goals of SFM must be strengthened at both the international and national levels. *"The international dialogue on forests has succeeded in forming a consensus around the idea of SFM. The time spent for forging a new consensus can never be re-covered",* said Professor Rayner.

The next steps

IUFRO will also present the report to negotiators at the United Nations Climate Change Talks to be held this June in Bonn, Germany. This event is a significant step in the international climate change negotiations that will culminate in the UN Climate Change Conference in Copenhagen, Denmark, this December. So far forest-related deliberations have focused mainly on carbon emissions from deforestation. The analysis shows that policy makers also must consider how the world's forests are likely to suffer as the earth is getting warmer.