



North
American

Forest
Commission



Climate, Atmospheric Change & Forests Working Group



Mission

Through science and monitoring, international cooperation, dissemination of new technologies and techniques, the Climate, Atmospheric Change and Forest Working Group promotes knowledge-gathering of the effects of atmospheric pollutants and climate change on forests ecosystems.

Objectives

1. Promote the collection, exchange and dissemination of information and techniques in the field of monitoring and evaluating the effects of atmospheric and climate change on forests.
2. Foster tri-national cooperation, to address mitigation of atmospheric and climate change by the forest sector, its impacts on forests, and adaptation to variability.
3. Prepare publications, maps, and databases on the state of the health and productivity of forests in North America, based on the monitoring of forest health conditions in the three countries.

4. In the field of detection and effects of atmospheric and climate changes on forests within North America, foster international cooperation among scientists and forest managers, policy makers, and other natural resource agencies, and related tri-lateral programs on areas of common interest (for example, the Commission for Environmental Cooperation and the North American Carbon Program).
5. Collaborate with other NAFC Working Groups and with those of other FAO Regional Forestry Commissions in crosscutting issues.

Current Activities/Impacts

- A continued service as a venue for fostering collaborative research. For example: facilitating participation by U.S. and Canadian scientists in a proposal to the U.S. National Science Foundation, titled “The effects of forest management on changing forests of North America: scaling from the stand to the continent.” This continental-scale analysis of management, disturbance, and climatic effects on forest structure and function will lead ecologists and forest resource managers toward a new understanding that supports improved stewardship of forest resources.
- Development of a North American forest biomass map, integrating work performed independently in each country into a cohesive and harmonized geospatial product. The first version of this map has been posted on a USDA web site: (agb_na_150dpi_03052014.pdf). This work will continue, placing an increased

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emphasis on including biomass of “trees outside forests”, such as in urban and suburban areas.

- Work initiated on a North American forest soils map, in collaboration with the International Soil Carbon Network.
- Close collaboration with the ad-hoc “Resiliency Working Group”, to develop scenarios for building a more resilient forest sector. Specifically, the group initiated a contract with the Institute for Alternative Futures, to guide the NAFC to develop and apply concepts and processes from the field of strategic foresight, which will enhance the ability of the North American Forestry Commission and resource management organizations in North America to plan and operate within an environment of growing uncertainty and rapid change.
- In collaboration with other cooperative efforts, the working group developed a successful project addressing the use of the Carbon Balance Model: Integrated Modeling and Assessment of Mitigation Options in the Forestry Sector in North America.

Publications & Links

[Integrated Modeling and Assessment of North American Forest Carbon Dynamics Technical Report](#)

[Modelización y evaluación integradas de la dinámica del carbono forestal en América del Norte](#)

US

[Silviculture for Climate Change](#)

[Silvicultura para el Cambio Climático](#)

[Detecting Tree Migration with Forest Inventory Analysis](#)

[Uso del análisis del inventario forestal para detectar migraciones de árboles en respuesta al cambio climático](#)

Canada

[Operational-scale Carbon Budget Model of the Canadian Forest Sector \(CBM-CFS3\) version 1.2: user’s guide](#)

[Modelo de balance de carbono del sector forestal Canadiense \(MBC-SFC3\) a escala operativa, versión 1.2: guía del usuario](#)

[Modèle du bilan du carbone du secteur forestier canadien \(MBC-SFC3\) à l'échelle opérationnelle. Version 1.2 : guide de l'utilisateur.](#)

[Carbon Budget Model of the Canadian Forest Sector \(CBM-CFS3\): Archive Index Database table and parameter descriptions](#)

[Modelo de balance de carbono del sector forestal Canadiense \(MBC-SFC3\): Descripciones de tablas y parámetros de la Base de datos de índice de archivo](#)

[Modèle du bilan du carbone du secteur forestier canadien \(MBC-SFC3\) : Description des tableaux et paramètres de la Base de données de l'index des archives](#)

Mexico

[Good Practices and Lessons Learned](#)

[Buenas prácticas y lecciones aprendidas](#)

[National Atlas of Vulnerability to Climate Change Atlas Nacional de Vulnerabilidad al Cambio Climático](#)