



Tools are now available to  
better manage forests for  
greenhouse gas mitigation

2013–2014 Project

## **Integrated Modeling and Assessment of North American Forest Carbon Dynamics and Climate Change Mitigation Options**

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This project, initiated by the three national forest services of North America, contributed to the development of science-based decision-support models that quantify the impacts of alternative forest and land management options on the carbon balance of North American forests. It also supported the development of land cover and land-cover change products at the continental scale.



## Key Accomplishments

- Advancement of methods for monitoring and reporting forest sector greenhouse gas emissions and removal estimates
- Development of a set of continental land-cover change products
- First study to show that increasing the spatial resolution of remote sensing products improves the ability to detect changes in tropical regions where small plots of land undergo change

## Products

- Summary report entitled: *Integrated Modeling and Assessment of North American Forest Carbon Dynamics: Tools for Monitoring, Reporting and Projecting Forest Greenhouse Gas Emissions and Removals*
- Four research projects:
  - a. Estimating North American forest carbon budgets: development and testing of computational tools and modeling approaches
  - b. Estimating carbon dynamics and potential impacts of climate change and disturbances on carbon sequestration in the North American forests using process models: model evaluation and case study
  - c. Remote sensing observations of forest disturbances and their impact on forest carbon dynamics
  - d. Assessment of data sets and change detection approaches for forest carbon mapping in the Yucatán peninsula
- Land cover 2010 and land-cover change 2005–2010 maps and associated data

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## Partners, Stakeholders and Beneficiaries

Partners include the North American Carbon Modeling Group and North American Land Change Monitoring Group. Stakeholders and beneficiaries include: Natural Resources Canada—Canadian Forest Service and Canada Centre for Remote Sensing; University of British Columbia; US Forest Service; US Geological Survey; *Comisión Nacional Forestal*; *Instituto Nacional de Estadística y Geografía*; *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*; *Proyecto México Noruega*.

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### About the CEC

The Commission for Environmental Cooperation (CEC) was established by the governments of Canada, Mexico and the United States through the North American Agreement on Environmental Cooperation, the environmental side agreement to NAFTA. An intergovernmental organization, the CEC is composed of a Council of cabinet-level environmental officials from the three countries, a Joint Public Advisory Committee and a Secretariat that provides operational support for cooperative work between the three countries. The organization brings together citizens and experts from governments, nongovernmental organizations, scientists, researchers and businesses to seek solutions to protect North America's shared environment while supporting sustainable economic development.

