

National Greenhouse Gas Inventory: Land Use Change and Forestry in Canada (1997)

Client: Environment Canada – Pollution Data Branch - GHG Division

Using IPCC methodology SGA calculated the annual emissions and sequestrations from all sources and sinks in the forestry and land use change category for the year 1990. The methodology considered changes in forest and other woody biomass stocks, forest and grassland conversions, abandonment of managed lands and emissions and removals from soils. In the process SGA established the groundwork for modelling annual emissions and sequestrations for all years of the National Inventory.

The International Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories Chapter 5 details the background and methodology for estimating greenhouse gas emissions and CO₂ removals as a result of land-use change and forestry. SGA modelled net emissions and removals for Canada in the year 1990 following, to the extent possible, IPCC methods. The study has paved the way for introduction of the Land Use Change and Forestry module into Canada's National Inventory and to expand the subsequent annual National Inventories.

Four activity subcategories are considered. These are:

1. Changes in Forest and Other Woody Biomass Stocks due to biomass growth and commercial or energy extraction;
2. Forest and Grassland Conversions to agriculture or urban uses;
3. Abandonment of managed agricultural lands to forests;
4. CO₂ Emissions and Removals from Agricultural Soil.

The final report is divided into four parts. FINDINGS summarizes the results of the inventory, DISCUSSION AND RECOMMENDATIONS provides suggestions for next steps and for ways of strengthening the study findings, METHODOLOGY outlines data sources, assumptions and methods used for the detailed calculations and, USER GUIDE provides a discussion for a novice user on how to develop estimates of emissions and removals for years other than 1990.