The Intergovernmental Panel on Climate Change (IPCC) has specified five indicators of inventory quality:

Transparency: Assumptions and methods are explained clearly so the inventory can be understood and replicated

Accuracy: Estimates reflect actual emissions and removals, with no systematic overestimation or underestimation

Completeness: All existing, relevant sources, sinks, and gases across a country's full geographic area are included

Consistency: The same methodologies and consistent data sets are used for the base and all subsequent years in estimating emissions and removals, so differences in results between years and categories reflect real differences in emissions

Comparability: The methodologies used to develop estimates of emissions and removals, and how the inventory is reported, allow the inventory to be compared to those developed by other countries

Valuable Assistance for Preparing National GHG Inventories

Your GHG inventory team can take advantage of valuable funding, support, and technical resources to improve the quality of your national inventory.

- Apply for **financial support** from the Global Environment Facility for preparing National Communications and Biennial Update Reports for submission to the UNFCCC
- Receive **technical assistance** on GHG inventory management, methods, and activity data collection from the U.S. Environmental Protection Agency and U.S. Agency for International Development
- Participate in **training** from the UNFCCC Consultative Group of Experts (CGE)
- Download Agriculture and Land Use (ALU) National GHG Inventory **software** for estimating emissions and removals from Agriculture and from Land Use, Land-Use Change, and Forestry, which is consistent with Intergovernmental Panel on Climate Change guidelines
- Download the United Nations Development Programme National Communication Support Program **handbook**, *Managing the National Greenhouse Gas Inventory Process*

Learn more at www.epa.gov/climatechange/capacitybuilding

EPA
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460
www.epa.gov

Recycled/Recyclable
Printed with Vegetable Oil Based Inks on Recycled Paper
(Minimum 50% Postconsumer)

EPA USAID FROM THE AMERICAN PEOPLE

National Greenhouse Gas Inventories

A Foundation for Low Emission Development

Build a Solid Foundation for Low Emission Growth

A greenhouse gas (GHG) inventory can be a valuable tool for developing policies and programs that address climate change and economic development. GHG inventories estimate emissions to and removals from the atmosphere over time. This information can help your country:

- Understand national GHG emissions, removals, and trends
- Identify cost-effective policies and programs to reduce emissions
- Measure success in reducing emissions and enhancing removals
- Provide input into economic assessments
- Enhance management of natural resources such as forest stocks and food production
- Fulfill United Nations Framework Convention on Climate Change (UNFCCC) reporting requirements for Biennial Update Reports and National Communications

But that's just the beginning!

GHG inventories provide an analysis of the economic activities associated with emissions and removals, such as fossil fuel combustion, cement production, forest management, crop production, and livestock production. In addition, the process of collecting and analyzing the data needed to develop an inventory supports participation in climate change programs, advances economic development, informs investments, and helps with managing natural resources.

Participate in International Climate Change Programs

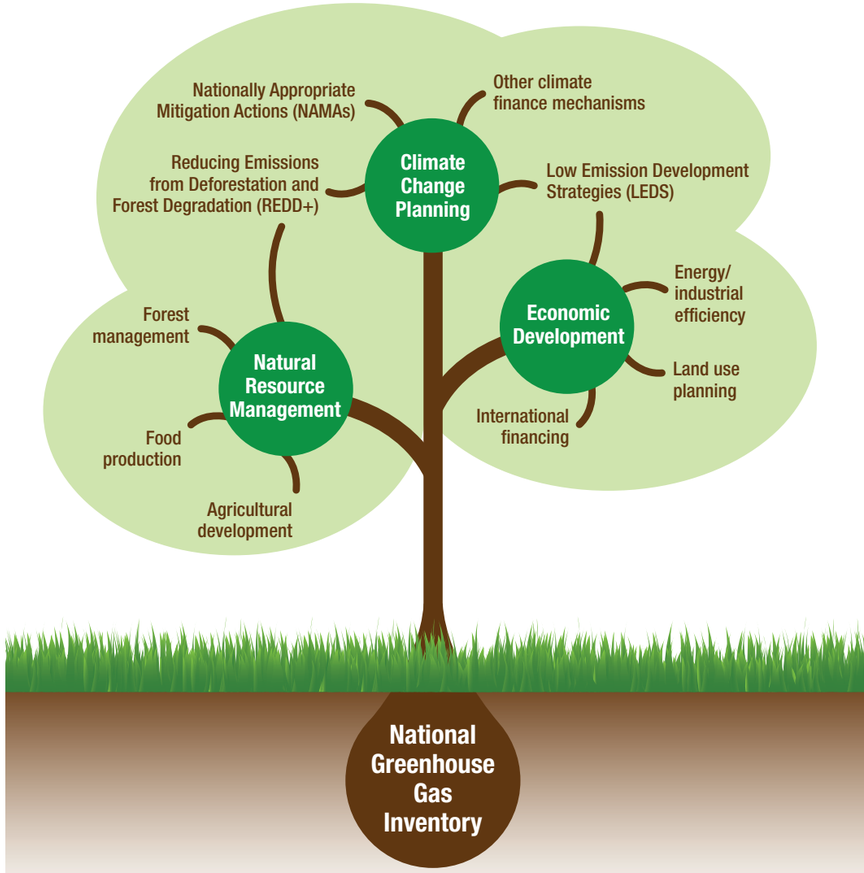
With a complete inventory, countries can:

- Build technical expertise that can be applied to other climate change policies and programs
- More easily access climate financing, such as funds available from the Global Environment Facility
- Estimate and report forest-related carbon emissions and removals, which will help a country prepare for participation in REDD+, an international effort to create financial value for maintaining or increasing carbon stored from forests in developing countries
- Inform Low Emission Development Strategies (LEDS) and Nationally Appropriate Mitigation Actions (NAMAs) to reduce emissions and promote economic growth

Use Inventory Data and Analysis to Support Multiple Priorities

Inventory data and emission estimates can help identify strategies for improving a country's economy and managing natural resources. In many countries, data relevant to preparing an inventory is collected for other purposes. If not, data collected for inventory purposes can be used to support economic development, natural resource management, and much more. For example:

- Data on raw material production and energy consumption can be used to help industry improve processes and increase efficiency
- GHG emission rates (e.g., emissions per unit of milk or meat production) can be compared to rates in other countries to identify and address inefficiencies in livestock management
- Data on the size and types of forests in your country (and how they change over time) can be used to promote sustainable harvesting of timber for wood products, ensuring the long-term viability of the timber industry, while protecting watersheds and biodiversity and enhancing the tourism industry
- Data on agricultural practices can be shared with land managers to create sustainable approaches to food production, agricultural development, and rural development

Activities Supported by National GHG Inventories

National GHG inventories provide a foundation for sustainable development decisions and growth. A high-quality inventory can support a variety of areas of activities and programs related to natural resource management, climate change planning, and economic development, as illustrated in the figure below.