



Forest Inventory & Analysis

What is Forest Inventory and Analysis?



FIA Fact Sheet Series

Mission. The Forest Inventory and Analysis (FIA) program of the USDA Forest Service has been in continuous operation since 1930 with a mission to:

"make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the US."

The FIA Program collects, analyzes, and reports information on the status and trends of America's forests: how much forest exists, where it exists, who owns it, and how it is changing, as well as how the trees and other forest vegetation are growing and how much has died or has been removed in recent years. This information can be used in many ways, such as in evaluating wildlife habitat conditions, assessing the sustainability of ecosystem management practices, and supporting planning and decision-making activities undertaken by public and private enterprises.

The FIA Program combines this information with related data on insects, diseases, and other types of forest damages and stressors to assess the health condition and potential future risks to forests. The program also projects what the forests are likely to be in 10 to 50 years under various scenarios. This information is essential for evaluating whether current forest management practices are sustainable in the long run and whether current policies will allow future generations to enjoy America's forests.

Background. FIA, initially known as the Forest Survey, was conceived almost 100 years ago when the Congress acknowledged the need for information on the supply and condition of the Nation's timber resources. The Organic Act of 1897, which established the National Forest System, included provisions for inventory and management of these lands. Later the Forestry Research Act (McSweeney-McNary) of 1928 directed the Secretary of Agriculture to make and keep current a comprehensive inventory and analysis of the nation's forest resources. The Resources Planning Act of 1974 (RPA, PL 93-378) amended the earlier research act and directed the Secretary to:

"make and keep current a comprehensive inventory and analysis of the present and prospective conditions and of the requirements for the renewable resources of the forests and rangelands of the United States."

The Forest and Rangeland Renewable Resources Research Act of 1978 (PL 95-307), which replaced the earlier Forestry Research legislation, repeated the amendment contained in the RPA and instructed the Secretary to:

"...obtain, analyze, develop, demonstrate, and disseminate scientific information about protecting, managing, and utilizing forest and rangeland renewable resources in rural, suburban, and urban areas."

The National Forest Management Act of 1976 (PL 94-588) directed the USDA Forest Service to:

"insure research on and (based upon continuous monitoring and assessment in the field) evaluation of the effects of each management system..."

The 1999 Farm Bill (PL 105-185) directed the Forest Service to make a transition to approach where each state is inventoried annually. Taken together with the recommendations of the Second Blue Ribbon Panel, the following needs were identified:

- Data collected annually, analyzed promptly, and used to produce individual State Reports every 5 years;
- Consistent core data and analyses across political and administrative boundaries and different land ownerships;
- Current information that is consistent with historical information;
- Data sets and analytical results that include a wide array of forest ecosystem parameters that address the health status and condition of the forests in addition to traditional productivity measures;
- Data that can be post stratified and analyzed in numerous ways;
- Data that are readily available in elemental, summarized, and analyzed forms, targeted at different audiences;
- Data that are reliable and credible because data quality attributes are fully documented;
- Analyses and interpretations of trends in the data, including making projections that look ahead 20 years.

Further, the 2014 Farm Bill (PL 113-79) suggested 11 elements for consideration:

- Complete transition to annual inventory and include interior Alaska;
- Implement an annual inventory of urban trees;
- Report information about renewable biomass and carbon stocks by ownership type at varying spatial scales;
- Engage State foresters and other users to demonstrate the need for core data;
- Improve the timeliness of the annual timber product output program;
- Foster greater cooperation with partners;
- Improve information management through the use of non-Federal resources;
- Integrate new technologies through collaborations with other Federal agencies;
- Understand and report on changes in land cover and use;
- Promote sustainable forest stewardship through increased understanding of forest owners;
- Improve the statistical precision of estimates at the sub-State level.

The FIA Strategic Plan (2014-2016) includes an evaluation of organizational changes, implementation tactics, and associated costs of the recommended elements. Based on funding levels from the Federal government and partners, the FIA program is working towards all of the listed elements.

Vision. The USDA Forest Service delivers current, consistent, and credible information about the status, condition, ownership, and timber outputs of America's forests. We summarize and report the most current information about forest health and productivity in each State every five years. We collect and analyze a consistent core set of ecological data on all forests so that comparable information and trends exist for all regions and ownership categories. In each region, we collect additional data beyond the core set and customize analyses to address specific regional and local issues. Consequently, our information and trends are important indicators of the conservation and sustainable management of America's forests.

We use the latest technologies to acquire data through remote sensing and field activities. We use experts from universities and elsewhere to augment our research and analytical capabilities and to help us develop new inventory and monitoring techniques. We use rigorous quality assurance procedures to verify the accuracy of our estimates and validate our analytical results. Consequently, State, Federal, and international agencies, industries, environmental organizations, private landowners and consultants can rely on the credibility of our information to make critical land management, policy, and investment decisions.

Our partners are an integral part of our forest inventory and monitoring activities. Without their contributions of personnel and funding and their continued support, this vision cannot be attained.

Program Components:

Coverage. All public and private forest land is included in a single inventory program

Equity. All public and private forest land is included in a single inventory program

Sampling Intensity. The base program includes sampling levels of 15% per year in the eastern US and 10% per year in the western US.

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Information Management.

External and internal data needs are met through a nationally consistent set of tables, data validation procedures, algorithms, analytical and compilation procedures, and data access tools. The FIADB is publicly available for download and the number of analytical tools available online continues to increase.

Analysis. Core data is compiled into standard tables and reports for each state annually, a comprehensive analytical report is produced every 5 years for each state, and a National summary report will be prepared periodically for the Resources Planning Act (RPA) Assessment.

Research and Development.

Investments in the latest technology and modeling techniques allow the program to improve efficiency and report on relevant information.

Customer Needs. Key customer groups include:

- State and national forest policy decision makers
- State foresters
- Industry and consultants
- Environmental organizations
- Forest Service officials
- Researchers
- Journalists
- Interested private citizens

For more information regarding the FIA Program:

- Visit our national FIA website: www.fia.fs.fed.us