Presented to Chief Robertson on October 10, 1992

American Forests

American Forest Council

REPORT

Hardwood Research Council

OF THE

National Association of Professional Forestry Schools and Colleges

BLUE RIBBON PANEL

National Association of State Foresters

ON

National Woodland Owners Association

FOREST INVENTORY

National Council of the Paper industry for Air and Stream Improvement

AND

National Forest Products Association

ANALYSIS

Society of American Foresters

Tennessee Valley Authority

Wilderness Society

INTRODUCTION

Forest Inventory and AnaLysis (FIA), a program of USDA Forest Service Research, provides information to both the public and private sector on the status and use of U.S. forests This information is essential in guiding resource management and investment decisions which affect the environmental quality and economic strength of the United States. Controversies surrounding the spotted owl old growth, wetlands, and biological diversity underscore the critical need for high quality resource data. Yet, this research continues to receive only maintenance-level funding and its worth and potential are appreciated by only a small portion of the natural nxoresource community.

ACKNOWLEDGMENT

The information, findings, and recommendations contained in this report are endorsed by the following organizations, most of which participated actively in the panel discussions: American Forests, American Forest Council, Hardwood Research Council, National Association of Professional Forestry Schools and Colleges, National Association of State Foresters, National Woodland Owners Association, National Council of the Paper Industry for Air and Stream Improvement, National Forest Products Association, Society of American Foresters, Tennessee Valley Authority, and Wilderness Society.

THE BLUE RIBBON PANEL ON FIA

The intense interest in FIA data has raised questions about inventory methods and policies. In early 1991 the American Forest Council (AFC) Forest Resources Research Committee discussed many of these FIA issues with Forest Service Chief Dale Robertson. The AFC committee suggested, and Chief Robertson agreed, forming a panel of high-level leaders from the full forestry community, including federal and state agencies, industry, academia, environmental organizations, and other user groups. Their mission would be to develop a national vision and strategy, as well as goals and objectives, for meeting the present and future needs for forest resource inventory information.

The panel would be asked to evaluate the current Forest Servuce FIA program and:

- determine the future needs of all user groups;
- identify how FIA can better serve the public and the various user groups;
- identify the scientifically valid uses of FIA data;
- assist in increasing public recognition that FIA data are basic information needed by society as a whole; and
- generate Congressional and Administration funding support for FIA programs.

Fourteen panelists, representing a broad cross-section of FIA user groups, met in Washington, DC on Sept. 26,1991 to participate in a brainstorming session on how to achieve the above goals. From the start, these individuals recognized that they represented only the beginning of a Blue Ribbon Panel on FIA. The Panel concluded that their Sept. 26 discussions should be summarized and forwarded to a broader audience of FIA users for review and comment and additional participation in the efforts of the FIA Blue Ribbon Panel should be encouraged.

The preliminary report was widely circulated for review and comment among academia, conservation and environmental groups, federal and state agencies, industry, and professional organizations. The review generated more than 100 pages of comments.

On July 23,1992 the Blue Ribbon Panel on FIA met again in Washington, DC to review all the comments and suggestions and to develop the following consensus background information, findings and recommendations for continuously improving FIA. Participants on the Blue Ribbon Panel on FIA are listed in the Appendix.

BACKGROUND

The mission of the Forest Service Forest Inventory and Analysis Program (FIA) is:

> ***"TO improve the understanding and management of our Nations' forests by maintaining a comprehensive inventory of the status and trends of the country's diverse forest ecosystems, their use, and their health. "***

FIA has traditionally focused on the Following four research areas: (1) maintaining a comprehensive inventory of U.S. forest ecosystems; (2) identifying noncommodity forest values; (3) determining levels of commercial use of forests; and (4) conducting timber production analyses.

FIA, initially known as the Forest Survey, was conceived over six decades ago when Congress acknowledged the need for information on the supply and condition of the Nation's timber resources. The Forest Research Act (McSweeney-McNary) of 1928 established the national inventory program. This 1928 Act was expanded and replaced by the Forest and Rangeland Renewable Research Act of 1978. Today, comprehensive inventories are periodically updated by combining inventory information provided by federal land management agencies and the remeasurement of a network of remotely-sensed and field-plot locations distributed throughout all non-federal forests of the United States. The period between remeasurement is known as the inventory cycle." Inventory cycles average 6 to 8 years in the South and 10 to 14 years in the North and West. The difference in inventory cycles is a function of funding levels; the difficulty of sampling in inaccessible and mountainous terrain; and changing forest conditions.

FIA identifies trends in noncommodity forest values through the comprehensive inventory and associated studies. This research provides information on noncommodity resources such as wildlife habitat, watershed conditions, and recreation use. The information provided by FIA allows the evaluation of both the quantity and quality of these important forest resources.

The data collected through the comprehensive inventory allow Forest Service scientists to determine the current forest area, timber volumes, growth, harvests, mortality, and management of U.S. forests. These data also provide the information necessary to model future timber volumes. Taken together with associated research on current and future demand for wood products, this area of research provides useful information on the balance between supply and demand for wood products both nationality and regionally.

FIA is also responsive to the nation's increasing demands for forest resource information. New research areas include forest health monitoring and urban forest inventories. FIA is guided by the following principles:

- provide accurate and timely forest resource statistics;
- provide leadership for inventory and change monitoring of the Nation's forests;
- assist in addressing global forest resource problems;
- work to establish universal protocols to assure compatible global statistics;
- maintain and enhance service to clients and cooperators;
- actively develop improved inventory methods and technology in support of major clients and their missions; and
- recruit, train, and retain a competent and highly dedicated and diverse work force.

FINDINGS AND RECOMMENDATIONS

Future Demands and Enhancements

The following six categories of future demands and enhancements are the highest priority for ensuring continuous improvement of FIA:

- Improve and Expand Information on Ecosystems and Noncommodity Values;
- Recognize and Identify Ownership, Regulatory, and Social Impacts on Forest Productively

  Produce the Most Current Resource Data Possible;
- Implement a Uniform Approach On All Ownerships;
- Increase Consistency and Compatibility among FIA Units; and
- Enhance Coordination Between FIA and Public Agencies.

Improve and Expand Information on Ecosystem and Noncommodity Values

In accomplishing its mission, FIA should view "forest" in the broadest context. In this context FIA should improve and expand inventory information on ecosystems and noncommodity values. The term "ecosystem requires a more precise definition; however, comprehensive and standardized inventory information is needed on subjects such as ecosystem sustainability, fragmentation, spatial distributions, and biological diversity. New technologies, analytical tools and innovative approaches will be required to provide this information. Approaches to accomplish this might include some link between FIA and ecological classification Systems and/or the identification of the most ecologically significant forest ecosystems.

As the Forest Service, and perhaps other forest managers and landowners, move towards "ecosystem management,' FIA is in the best position, and is the most qualified and appropriate organization, to provide inventory information on ecosystems and noncommodity vlaues. In order to maintain this position, FIA must be alert and responsive to new or expanded demands for forest resource information. New demands for forest resource information, if not supplied by FIA, will be supplied, at a higher cost or potential lesser quality, from other sources.

Recognize and Identify Ownership, Regulatory, and Social Impacts on Forest Productivity

FIA should identify and incorporate the implications of changing landowner demographics, attitudes, and economic imperatives in reporting current and projected commodity and noncommodity resource availability and productivity. The individual and cumulative effects of issues such as: local, state, and federal land use regulations and tax laws should also be incorporated in this FIA reporting. Fulfilling this demand may require special research and landowner surveys, procedures which are beyond FIA's current field sampling and measurement techniques. An important near-term goal would be providing information on land owner tract size.

Produce the Most Current Resource Data Possible

Recognizing the ever-increasing need for current forest resource information, the Administration and Congress should provide the financial support to significantly reduce the length of inventory cycles in each region of the country. The Administration and Congress should adopt a goal of a five-year inventory cycle in each region, with more frequent updates where there are specific regional needs or as new technology is adopted. A five-year inventory cycle would enhance the quality of the RPA Assessments and Updates prepared by the Forest Service.

FIA can assist in achieving a five-year inventory cycle by: (1) developing and implementing new technology, such as remote sensing, to accomplish inventory in a more cost-effective and efficient manner; (2) improving the quality and credibility of data through procedures such as the use of inventories to validate growth and yield models at different levels; (3) expanding joint data collection efforts with state agencies; and (4) promoting innovative ideas and approaches for inventory of noncommodity forest values.

Implement a Uniform Approach on All Ownerships

A uniform approach to collection and analysis of forest inventory information across all ownerships is necessary to improve the accuracy, usefulness, and efficiency of the nation’s comprehensive inventory of the forest ecosystems. FIA should incorporate all federal lands (e.g. National Forests, National Parks, and BLM) in its network of inventory plots. *To ensure consistency, FIA* should *also be responsible for the collection, analysis, reconciliation, and reporting of extensive forest inventory information on federal land.*

Increase Consistency and Compatibility Among FIA Units

To ensure the usefulness and credibility of FIA data, it is essential to strive for uniform procedures, wherever possible, among FIA units, including field procedures, analytical methods, and reports. User groups must be able to combine and analyze data from different FIA units and uniform standards would help ensure data compatibility. Also, a *strong quality assurance and quality control program*, as well as thorough documentation of all procedures, are key to promoting continuous improvement. An organized quality control program within FIA should include participation by outside users groups. Updating the FIA Handbook would help to accomplish this objective.

Enhance Coordination between FIA and Public Agencies

Developing solutions to natural resource concerns, such as global warming, old growth, forest health, and endangered species, increasingly involves special inventories or studies to gather basic data or reanalyze existing data. These studies often are undertaken by federal and state agencies (including branches of the Forest Service not associated with FIA) that are not traditionally involved in the forest inventory process. When FIA data, models, or plots are involved in these special studies, FIA should have a lead role in coordinating these efforts. FIA should also have a preeminent position in all federal efforts to inventory and monitor forest resource conditions at the regional and national levels. At the state and local levels, FIA should have an oversight role in federal efforts and consultant role with other efforts to ensure that (1) analytical procedures are scientifically valid; and (2) the demand for resource information is met in the most efficient manner possible.

Generating User Group Support

User group support is a key component of any strategy to achieve increased public recognition and federal funding for FIA. To increase user group support FIA must:

. Improve Service to User Groups; and
. Expand Clientele.

Improve Service to User Groups

While working to meet the six major demands identified above, FIA can make several procedural or administrative changes which will improve its service to the user groups. The following recommendations are achievable within the current funding levels for FIA:

- **Implement an ongoing FIA user review process - know your customers.** Developing a process at the local, regional, and national groups to promote user group review and comments will assist FIA in becoming rnore rcsponsive to users' needs. This process should include regional and national meetings which target important user groups who have not traditionally been directly involved with FIA. The process would help define the needs of FIA's clientele and would have significant value as a tool to promote FIA

- **Promote FIA and its products.** FIA should pursue opportunities to increase recognition of its products and its contributions to major Forest Service projects. For example: a brief description of FIA could be printed on the inside cover of all FIA publications; and major publications, such as the RPA Assessment should highlight the contributions of FIA. Also, to reach potential users and buttress support from current users, FIA should consider developing a promotional brochure, a "yellow pages" of services, press briefings when new information is released, an FIA newsletter, and/or promotional articles in current and potential user group publications.

- **Thoroughly document FIA procedures.** To increase the usefulness and marketability of FIA products, all procedures must be documented. This process should also include tailoring-or simplifying- documentation and information for specific user groups.

- **Communicate the scientifically valid uses of FIA information.** To maintain the credibility of the program, FIA, working together with experienced biometricians, must issue clear direction on the scientifically valid uses of FIA data without creating disincentives to innovation and advancement of technology. It is impractical, if not impossible, to ensure only valid uses of FIA data; however, by developing clear direction and disclaimers, FIA can avoid being linked to

erroneous analyses. FIA should also strongly encourage users of the data to submit their findings for peer review.

- Maintain focus on FIA's fundamental long-term mission. FIA should continue to work towards its established mission. Expanding the responsibilities of FIA to include issues which may attract funding in the short-term may diminish FIA's effectiveness in the long-term.

Expand Clientele

While providing the expected level of service to maintain the support of traditional user groups, FIA must aggressively seek to expand its base of users - its clientele. Expanding this base of users will increase recognition and support for FIA.

There are currently two broad types of user groups: *cooperators and accessors.*

Cooperators are those groups that have *traditionally* cooperated fully with FIA as partners in the collection, analysis, use, and improvement of FIA information. *Accessors are those* groups that occasionally use FIA data or results. *FIA must place a special emphasis on expanding its network of cooperators by encouraging "accessors" to become "cooperators. ."* The following table lists the current status of user groups. The accessors which have been highlighted are those FIA should, in the near-term, pursue as cooperators.

COOPERATORS

Forest Products Industry
State Forestry Agencies
Forest Service Research
Universities
Tennessee Valley Authority

ACCESSORS

Environmental/Conservation Organizations
State and Private Forestry
National Forest System
National Park Service
EPA
Dept. of Energy
Dept. of Defense
Dept. of Commerce
Soil Conservation Service
Bureau of Land Management
Bureau of Indian Affairs
Fish and Wildlife Service
State Department
Congress
Consultants
Extension Agents
Native American Tribal Organizations
Regional/Local Governments
International Organizations
(FAO, ITTO, UNEP, etc.)
Wildlife Society
The Nature Conservancy
Local Environmental Groups
National Environmental Groups
World Bank
State Wildlife Agencies
Small landowners
Public Relations Firms
Investment Community
Chamber of Commerce
Media
Equipment Manufacturers
Educators
Drug Companies
Students
State Regulatory Bodies
Lawyers

STRATEGY FOR CONTINUOUSLY IMPROVING FIA

Objectives

Ensure implementation of the recommendations of the Blue Ribbon Panel on FIA

The following strategy components are key to establishing a reliable process for continuously improving FIA:

- Broaden user group support of panel recommendations
- Work with Forest Service Chief & staff to convince the Administration that the recommendations are necessary
- Generate increased congressional support for FIA
- Establish a Blue Ribbon Task Group.

Broaden User Group Support of Panel Recommendations

This report will be distributed to a broad group of users and potential users to generate additional support—a coalition for achieving the objective of continuously improving FIA. Individual panel members will solicit additional participation within their own interest groups. Implementation of this component begins with the release of this report to a wide audience of current and potential users of FIA.

Work with Forest Service Chief & Staff to Convince the Administration that the Recommendations are Necessary

Panel members, representing all interest groups, will brief the Forest Service Chief and staff on the recommendations contained in the report. The briefing will be used to reach agreement on a process to implement the recommendations under "Improve Service to User Groups" in the short-term and within current budgets. It will also seek to secure a commitment to develop a budget request which will address the future demands/enhancements recommended by the Panel.

Panel members will also meet with the Deputy Assistant Secretary and OMB to convince them that the budget request for FIA is important, appropriate, and is supported by a broad cross-section of interest groups.

Generate Increased Congressional Support for FIA

The panel will conduct a briefing for key congressional staff with the objective of conveying the importance of FIA and the broad support for improving FIA. The panel will develop one-page summaries for use in individual congressional office educational meetings. Developing broad user group support for the Panel recommendations is key in this phase of the strategy, as the non-traditional user groups may have access to members of Congress heretofore unaccessible by traditional users.

Congressional briefings and education of key members should begin immediately upon release of the report to generate general support for FIA. However, major efforts with Congress should be keyed to Agency/Administration requests for funding.

Establish a Blue Ribbon Task Group

A task group representing the full range of interests participating on the Panel, and any other interested groups, will be established and meet on at least an annual basis in order to continue to monitor, promote, coordinate, and develop a timeline for implementation of the recommendations. The task group will also serve as a sounding board for innovative approaches to continuously improving FIA

APPENDIX: BLUE RIBBON PANEL ON FIA

Rex McCullough, Chairman	Weyerhaeuser Company
Terri Bates	National Association of State Foresters
Larry Biles	Extension Service
Jim Bones	Forest Service- Research W.O.
Glenn Cleveland	International Paper
Sharon Friedman	Forest Service- RPA Staff W.O.
Wayne Haines	International Paper
John Heissenbuttel	American Forest Council
David Hyink	Weyerhaeuser Company
Fred Kaiser	Forest Service Research W.O.
Al Lucier	National Council of the Paper Industry for Air and Stream Improvement
Jim Newberry	Potlatch Corporation
Jeff Olson	Wilderness Society
Doug Powell	Forest Service- Research W.O.
Gerald Rose	Minnesota State Forester
Al Sample	American Forests
Al Schacht	Forest Service- State and Private Forestry
Brad Smith	Forest Service- Research W.O.
Greg Smith	Society of American Foresters
Emmett Thompson	Auburn University

Providing Additional Review of Report:

Keith Argow	National Association of Woodland Owners
Bill Banzhaf	Society of American Foresters
Robert Brooks	Tennessee Valley Authority
Tony Dorell	Forest Service- Cooperative Forestry W.O.
Al Dyer	University of Colorado
W.E. Frayer	Michigan Technical University
Robert Forney	Hardwood Research Council
George Furnival	Yale University
Frank Gladics	National Forest Products Association
Bill Hager	National Association of Conservation Districts
Tom Hamilton	Forest Service- Research W.O.
Terry Johnson	Soil Conservation Service
M. Dean Knighton	Forest Service- Intermountain Research Station
Ronald Lindmark	Forest Service- North Central Research Station Director
Douglas MacCleery	Forest Service- National Forest System W.O.
H. M. Montrey	Forest Service- Rocky Mountain Research Station Director
Conrad Monyta	Vermont State Forester
Charles Philpot	Forest Service- Pacific Northwest Research Station Director
Ric Preve	Association of Consulting Foresters
Peter J. Rousspoulos	Forest Service Southeast Research Station Director
Neil Sampson	American Forests
John Sargent	New Hampshire State Forester
James Steams	Washington State Forester
James Stewart	Forest Service- Research W.O.
Ronald Stewart	Forest Service- R5 Regional Forester
David Thorud	University of Washington
Larry Tombaugh	North Carolina State University
Ross Whaley	State University of New York