
The Reporting Revolution—The Southern Endeavor

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Abstract.—The need for expeditious portrayal of statewide inventory findings is paramount. Demand is intensifying. Yet, to date, relaying data results and analysis through traditional publications has been extremely time consuming. To address this issue, southern forest inventory and analysis (FIA) reporting is in transition. This article discusses the evolution of authorship, reporting formats, and incorporating nontraditional topics and presents examples of new instruments, such as “Factsheets” and “Congressional Corner” Web sites, and the advantages to address timely output. This article summarizes ventures into wildland-urban interface analysis, National Woodland Owner Survey categorization, invasive/exotic species identification, National Forest System reporting, and nontimber-product use arenas beyond regular reporting. Finally, differences in key issues and other considerations identified that impede standardized format goals are discussed. Beyond the hurdle of transitioning from periodic to annual reporting, the future appears brighter; however, currently mandated timeframes and unresolved format consensus are leading to more succinct methods of output under present organizational staffing.

Introduction

As the population of the United States increases, pressures and demands on its forest resources rise as well. The need for information about the status of these forest resources is critical. Data from the forest inventories conducted by the Forest Inventory and Analysis (FIA) work units of the Forest Service, U.S. Department of Agriculture are sought by a wide variety of clientele. These end users highly anticipate new data after it is

completed at the field level. Demand for access to the data and expectations of analytical findings reported are intensifying and time is of the essence. Simultaneously, FIA has implemented a plethora of changes to the inventory it conducts. These changes stemmed from Congressional mandates toward a national system and involved plot design, sample intensity, methods, cooperators, and frequency of the inventory. As a result of these changes, FIA has been in transition in its data acquisition, processing, and reporting. To accommodate mandated timeframes and more frequent data output, analytical reporting is evolving.

The purpose of this article is to summarize southern FIA endeavors to maintain traditional reporting while incorporating new topics and issues relevant to forest resources, all the while being more expedient in the process. This effort is a revolution at best and a challenge at the least. A synopsis is presented of where southern FIA has been in reporting, what southern FIA has done and is doing to address the evolving challenges, why they are doing these things, and when they expect to achieve the goals.

Evolution of Reporting (Traditional, Authorship, and Formats)

Where southern FIA has long focused its reporting revolves around traditional forestry related subjects. Southern FIA primarily reported on area, ownership, treatments, volume, growth, removals, mortality, and timber product output (TPO) for decades. Many reports were produced under sole authorship, but gradually, multiple authorship was used. Still, these authors were usually within the southern FIA unit. Now it is common, if not expected, to include a State cooperator in the authorship. In addition, other FIA units or other agencies may be included as coauthors.

Report formats changed gradually from black and white with typewritten text and tables to color covers with a few text-related graphs along with the tables. This format with a color cover continued to be used for several survey periods. Begin-

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ning in the 1990s, color was incorporated throughout, including graphics. This era saw growing use of more graphs and maps within the publications. Historically, the reports were mostly text documents, whereas now a preponderance of the findings is presented through the use of maps, charts, and graphs, which often outweigh the text.

Evolution of Report Types

What southern FIA has done to address the reporting challenge is to deviate in the report types used and expand the topics covered. Formerly, report types largely adhered to unit, State, TPO, and analytical reports. The transition to annual inventories and the associated frequency of output has created or coincided with the need to produce or utilize other instruments for data reporting. These include National Forest System (NFS) reports, newsletters, quarterly magazines, brochures, fact sheets, catastrophic assessments, specialty reports, and Web links to quickly provide access to key data or explanatory caveats. The reporting types used varied depending on end-user needs to be addressed or for publication expediency requirements. Individual survey unit reports ceased along with the last periodic inventories. Interim reports were published as requested by a State, such as the “South Carolina’s Forest Resources—2000 Update” (Conner and Sheffield 2001), which was based on three panels of annual inventory data.

Analytical reports continue to require the most effort and consume the most time for publication. They have expanded over time from reporting on traditional timber related subjects to encompassing many more topics related to the forest resource that will be discussed later in the article. TPO report formats (Bentley and Lowe 2006) have changed the least over time, as have their data collection. They also have remained the most consistent in delivery time, perhaps a testimony to the impacts of change or lack thereof on the overall reporting process.

The NFS reports (Oswalt 2005) are new to southern FIA. They are designed to report on all the national forests within a single State as opposed to individual forest reports. Plot intensification was necessary to achieve adequate sample sizes. Future inclusion of these reports as chapters within the analytical reports is being debated.

Southern FIA reinstated the use of a newsletter, titled *The Inventory* (USDA Forest Service 2006e), which is used to keep its constituents abreast of field inventory status, survey updates, data posting, and other FIA information and news. Southern FIA periodically uses the Station’s quarterly magazine, *Compass* (USDA Forest Service 2006b), as an outlet for articles involving survey findings and other research derived from inventory data. More recently, brochures were developed to identify threats to southern forests, clarify data access, and summarize what FIA does and can provide. One brochure was produced in conjunction with the Southern Forest Research Partnership (Southern Forest Research Partnership, Inc. 2006) and the others were produced internally.

Factsheets (e.g., USDA Forest Service 2006a) are one of the most recent instruments created to quickly portray many key results from a State inventory. Factsheets for 10 of the 13 southern States have been completed and posted on the Web this year. This instrument has proven to be the quickest approach to data output thus far. They have been well received and feedback indicates high value for legislative and executive summaries. In-house production and reproduction of factsheets on an immediate or as-needed basis offer tremendous advantages in time, cost, and distribution. Initial attempts in forming factsheets sought a standard design and content, but differences between the States in issues and economies required flexibility in the type of data reported.

Catastrophic assessments (e.g., Glass and Oswalt, n.d.) and reports, although not new, are much improved. After hurricanes and major ice storms, urgent demand exists for data. With this emphasis and the advent of factsheet style in reporting, assessments are being produced in a timely manner. Southern FIA intermittently produces specialty reports, such as the avian diversity study conducted on St. John (Oswalt *et al.*, in press), but time spent on routine inventory reporting limits these opportunities.

Lastly, southern FIA is using Web sites or URL links to make key State-level data or explanations of use quickly accessible. On the Station’s Congressional Corner (USDA Forest Service 2006c) for instance, totals for key data items are provided by clicking on an individual State. In Mapmaker (USDA Forest Service 2006d), a link was added in the selection window for

the State of Louisiana to explain differences in volume computation among surveys and to provide recomputed data.

Evolution of Report Topics

Southern FIA continues to report on traditional timber-related items of area, volume, growth, removals, mortality, TPO, treatments, harvest, and regeneration, among others. Although in some cases, these subjects are reported in lesser detail than in earlier reports. In essence, this trend has become somewhat necessary to capture discussion of a wider range of topics affecting the forest resources. Many of these topics are related to subjects that many perceive as threats to southern forests and are becoming increasingly important to assess. Urbanization, parcelization, ownership change, population shifts, and invasive species are on this list.

Forest health data are now incorporated into southern analytical reports. This incorporation first began with the 2001 South Carolina report (Conner *et al.* 2004), and forest health data are expected to remain a standard subject in analytical reports. The National Woodland Owner Survey findings are also new to southern analytical reports, again beginning with the 2001 South Carolina report. Although covered to some degree through other outlets, another topic recently added to analytical reports is the assessment of invasive/exotic species present in the State's forests. This assessment first appears in the 2002 North Carolina report (Brown *et al.* 2006). A discussion of the wildland-urban interface is new to analytical reporting for southern FIA and was first approached in the 2002 North Carolina report. Information gleaned from these last four topics could help evaluate the degree to which the perceived threats mentioned above are present in a State's forests.

Other new topics have begun to be included as well. An assessment of nontimber products from a State's forests was incorporated in the 2004 Kentucky report (Turner *et al.* n.d.) and the 2002 North Carolina report (Brown *et al.* 2006). These specialty forest products include edible, medicinal, dietary, floral, and crafts. Some analysts are investigating incorporation of ecoregion data, more detailed snag information (although this information is somewhat addressed in forest health sections), and possible inclusion of the NFS data in their analytical

reports. An urban inventory pilot test may lead to future inclusion of this subject as well.

Considerations

The mandates for an analytical report every 5 years or five panels and the change from periodic to annual inventories requiring annual updates is why reporting is in transition. As a result, the need for expedient means of reporting data is paramount. Thus, the use or creation of alternative instruments and other outlets to make inventory results available as soon as possible are being explored. When will these feats be accomplished? Southern FIA's first obstacle was the transition from periodic to annual inventories. The differences in plot design, inventory methods and procedures, sample intensity, and data processing that often led to distorted data comparisons between inventories gradually have been addressed. Analysts' time spent struggling with these issues is on the decline as processing systems are edited. Analysts should eventually have more time to devote to the analysis and reporting process.

Other issues exist, however, that give pause to the reporting process. Consensus on reporting formats and types is still developing. Differences within and between State forests in the South can be significant enough to require varied content. Physiography, species diversity and range, and even climate can differ. For example, Florida contains tropical species to the south and temperate ones in the north. Texas has pine and cypress in the east and mesquite in the west. Another anomaly is that many States are not consistent in the collection rate of their panel data, and many are collecting at rates differing from neighboring States. Situations like these could complicate reporting at the State level and affect reporting on regional items. Reports could be every 5 years or every five panels or otherwise.

An important issue in the South is the changing ownership of the forests. Forest industry ownership has been declining and other private entities, such as timber investment management organizations and real estate investment trusts, are increasing. Tracking these changes is difficult on its own, and particularly so with the ceasing of enumerating ownership data. Another

issue in the South is the parcelization of the forests to smaller tracts, which complicates true determination of timberland status as well as ownership. High rates of urbanization in certain States are an issue complicating accurate assessment of diversions from forest land. Finally, the need to collaborate with State partners in the reporting process can lead to lengthier or even multiple reviews, which extends the timeframe of completing a publication.

Future

Under currently mandated timeframes for reporting the data, FIA analysts are properly investigating all avenues for streamlining the reporting process and getting findings into the public forum as expediently as possible. The analytical reports remain the most challenging to expedite and format consensus remains unresolved. Analysts continue to be faced with emerging and lingering considerations when analyzing the data. A growing list of forest-resource-related topics requiring expert address has created the need for multiple authors, and the association with State partners in conducting the inventory has established multiagency authorship. Under the limitations of present organizational staffing, southern FIA envisions smaller and shorter publications along with the use of more graphics and map products. Perhaps that is when the reporting challenges facing FIA will be met.

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