

Is Stewardship Certification?

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Introduction

In response to social and environmental concerns, some environmental organizations, retailers, and forest products companies are encouraging consumers to purchase wood and wood-based products originating from certified forests. A significant number of these efforts are intended to counter an increasingly common perception by the general public that harvesting wood irreversibly damages the environment. The basis for certification is complex. For some, it meets a perceived need for neutral third-party organizations to assure consumers that forest managers are employing sound practices that will ensure sustainable forest sustainability. Others are involved in certification to protect their share of the forest products market and/or to assure that their philosophical approach to certification is available in the marketplace (Moffat et al. 2000). Given that certification may result in changes to forest products markets and forestland management, many groups have a stake in forest certification, including the timber industry, private for-profit and private non-profit standards programs, landowner assistance organizations, consulting foresters, and perhaps most importantly, non-industrial private forestland owners (NIPFs).

Why are NIPF owners so important? Two reasons. The first is related to ownership patterns. Of the two-thirds of the nation's forests which are classified as timberland, 358 million acres (73%) are in private ownership (Birch 1996), and according to Smith et al. (2001), the private individuals and groups that make up the NIPF category own 59% of America's timberland. While NIPF owners may own as few as one acre or up to thousands of acres of forest, in the southern United States, nearly two-thirds own fewer than 100 acres (Birch 1996). The second factor that makes NIPFs so important is related to demographics. NIPF owners are defined as private forest owners who do not own or operate wood processing facilities, and include farmers, miscellaneous individuals, and non-forest industry corporations, such as banks, insurance companies and the like (Bliss et al. 1997). Just as ownership patterns vary, so do individual's reasons for owning forestland. Research has shown that NIPF owner's attitudes towards forests, while highly variable, as a whole do not differ much from views held by the general public, especially in regards to environmental issues. As a result, few NIPFs are engaged in the active management and stewardship of their land.

Despite this general lack of active management, NIPF lands are a significant source for the nation's annual output of forest products. A long-running challenge has been encouraging and educating NIPF owners to devise and implement multi-resource management strategies for their holdings both to better protect their forests' resources and to improve the quality of their forests' timber and fiber. The USDA Forest Service's Forest Stewardship Program is one significant national effort to improve management by NIPFs.

The Forest Stewardship Program

The Forest Stewardship Program was authorized in 1990 as part of the first farm bill to specifically have a section devoted exclusively to forestry. The Cooperative Forestry Assistance Act was originally intended to update, expand, and eventually replace the Forestry Incentives Program (FIP), which provides cost-share dollars to assist landowners with tree planting. While FIP has been a successful program, its sole focus is timber management. In contrast, the Stewardship Program promotes multiple resource management. Professional land managers assist participating NIPF landowners in writing and implementing management plans that integrate timber with water quality, wildlife, soil, recreation, and aesthetics.

The USDA Forest Service administers the Stewardship Program and implements it via cooperative agreements with each state forestry office. Individual states have the flexibility to develop specific program guidelines and to involve state and local resource agencies and land-grant universities with program implementation. This flexibility also means that many state and federal resource management agencies may be involved in the Stewardship Program depending upon the way individual states interpret the legislation.

As authorized, The Cooperative Forestry Assistance Act has many parts, including a section to authorize the Forest Stewardship Program and the Stewardship Incentives Program. The Forest Stewardship Program makes it possible for professional resource management specialists from state and federal bureaus to provide on-site technical assistance for landowners wishing to participate. From 1990 to 1999, the Stewardship Incentives Program (SIP) provided cost-share funding to assist landowners with the costs of drafting and implementing their Stewardship management plans. All NIPF landowners willing to meet the requirements of the Act were eligible for this assistance. Cost-share assistance has not been available under SIP since 1999, although landowners can still participate in the Stewardship Program in other ways.

The Louisiana Forest Stewardship Program and Certification

The Louisiana Office of Forestry is the lead agency for the Forest Stewardship Program in Louisiana. This program provides a means for state, federal, and private agencies to better coordinate their services to the private, non-industrial forest landowners for total resource management.

The Forest Stewardship Program recognizes and rewards landowners who are managing their forestlands in such a manner that their forests are making a valuable contribution to Louisiana and to America. Timber, clean air and water, soil protection, healthy populations of fish and wildlife, other native biota, quality recreational experiences, aesthetics and environmental enhancements are multiple-use benefits resulting from forest stewardship.

The goal of the Forest Stewardship Program is to assist private forest landowners to more actively manage their forest and related resources; to keep these lands in a productive and healthy condition for present and future owners; and to increase the social, economic and environmental benefits of these lands. (Anonymous 2002)

In a study of Louisiana non-industrial private forestland owners, respondents were asked their preferences regarding certification for their own properties and if they had suggestions as to what might be viable alternatives to third-party certification for NIPF lands. The option most highly preferred by the respondents was to have the Louisiana Department of Agriculture and Forestry (LDAF) be the certifying agency. Respondents felt that state guidelines, and primarily the Louisiana Forest Stewardship Program, are sufficient and that monitoring by the LDAF would be most acceptable to them (Vlosky and Granskog 2001). A key question remained, however: Is the approach currently utilized by the LDAF to implement Stewardship an equivalent surrogate for certification?

This research attempts to answer that question by comparing the Louisiana Forest Stewardship Program with the guidelines of four sustainable forest management (SFM) standards and certification approaches: The American Forest and Paper Association's Sustainable Forestry Initiative (SFI), The Rainforest Alliance's SmartWood Program, Scientific Certification Systems' (SCS) Forest Conservation Program, and The National Woodland Owners Association's Green Tag Forestry Program.

This is a logical next step in identifying options for Louisiana NIPF owners and, by proxy, others enrolled in stewardship programs nationwide. By comparing the Louisiana Forest Stewardship program with these certification and standards programs, LDAF officials can identify strengths and weaknesses in the state's Stewardship program in relation to certification should state, regional, and national Stewardship directors choose to seek mutual recognition between the Forest Stewardship program and private sector SFM programs.

Research Methodology and Design

The ideal way to determine how stewardship compares to certification would be to have a team of auditors from each SFM standards and certification program conduct a field inspection of a representative sample of stewardship forests. Given the financial and time considerations of that approach, as well as the potential for landowners to limit access to their property, we determined that a reasonable surrogate would be to have representatives from each SFM standards and certification program compare Stewardship Forest management plans with plans that have met their program's guidelines. Accordingly, fourteen management plans out of the ± 100 properties in the Louisiana Stewardship program were selected for the study using an every-nth process. All information that might have allowed researchers and collaborators to identify property owners was deleted from each plan to protect confidentiality.

A two-part evaluation instrument was developed. The first part presented a matrix of Information Elements, Timber Management Elements, and Environmental Elements found in the four SFM standards and certification programs (**Table 1**). A set of Likert- scale questions was used to compare each Stewardship plan as "Highly Favorable, Favorable, Unfavorable, Adequate, Unfavorable, and Highly Unfavorable" (1) in relation to each of the three elements and (2) overall. Additionally, to identify pertinent elements not addressed in the selected management plans, auditors were allowed to respond "Cannot Assess." The second component consisted of two open-ended questions: (1) "If this plan rated unfavorable or highly unfavorable overall, what changes could be made to raise its rating?" and (2) "If you inspected this property and found that the plan is being followed by the landowner, what do you estimate its chances of receiving recognition by your organization?" Auditors from the four SFM standards and certification entities evaluated identical sets of fourteen Louisiana Stewardship plans using the forms we provided.

Table 1. Certification Management Plan Elements Evaluated

Information Elements

• General Information
• Forest Security
• Management Plans
• Management History
• Harvest Levels

Timber Management Elements

• Sustained Yield Mgmt.
• Annual Harvest Plans
• Harvesting Guidelines
• Felling Guidelines
• Clearcutting Guidelines
• Road Guidelines
• Skidding Guidelines
• Post-harvest Assessment
• Reforestation Guidelines
• Water Quality
• Chemical Guidelines
• Fire/Insects Disease

Environmental Elements

• Long-term Productivity
• Non-Timber Products
• Basal Area Retention
• Rotation-age Guidelines
• Fragmentation Guidelines
• Biological Resources
• T & E Species Protection
• Biological Diversity
• Wildlife and Fisheries
• Species Conversions
• Soil Conservation
• Protected Zones

Results

Stewardship Plans by Individual Elements

Figure 1 shows the auditors' evaluations for the Information Elements found in the standards certification guidelines. Aside from the SmartWood rating of 3.7 (approaching unfavorable) for Management Plans, the range of responses is narrow (between 2.0 and 3.2) indicating that information contained in the sample plans compared favorably to adequately with plans from certified forests.

The Timber Management Elements evaluation resulted in a wider spread of average scores between certification and standards programs. As can be seen in **(Figure 2)**, there is no clear pattern between individual elements. None of the plans contained felling guidelines; accordingly none of the auditors could assess that particular category, even though it is an attribute some auditors want to see addressed in plans for the forests they certify.

The range for Environmental Elements **(Figure 3)** was from a score of 1.0 (highly favorable) for Threatened and Endangered Species Protection by the SFI auditors to a 4.0 (Unfavorable) for Fragmentation Guidelines by the SCS auditors. Once again, for the balance of elements in this category, no clear pattern emerges.

Figure 1.

All Plans Combined Informational Elements

Scale: 1=Highly Favorable; 2=Favorable; 3=Adequate; 4= Unfavorable; 5= Highly Unfavorable

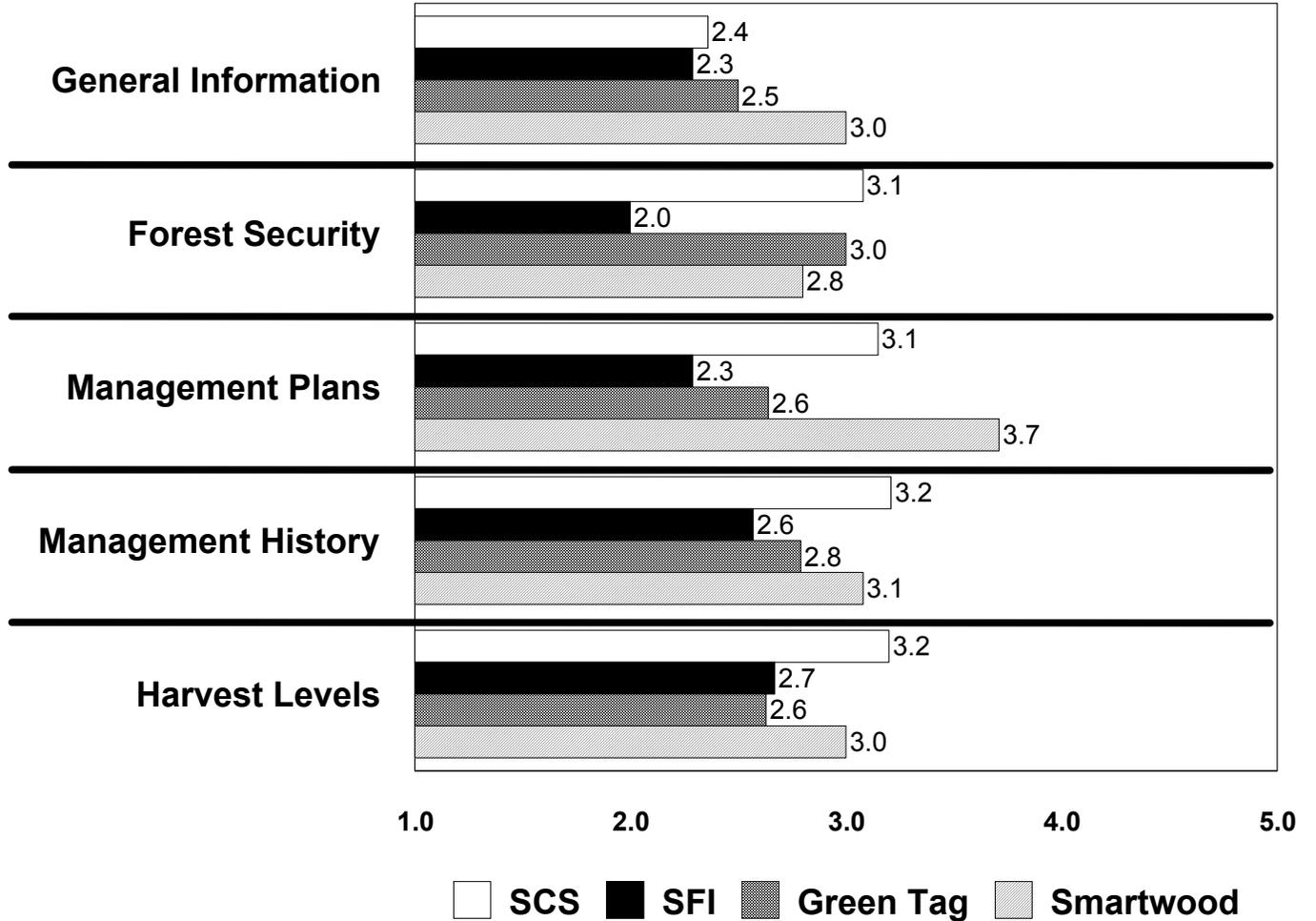


Figure 2.

All Plans Combined Timber Management Elements

Scale: 1=Highly Favorable; 2=Favorable; 3=Adequate; 4= Unfavorable; 5= Highly Unfavorable

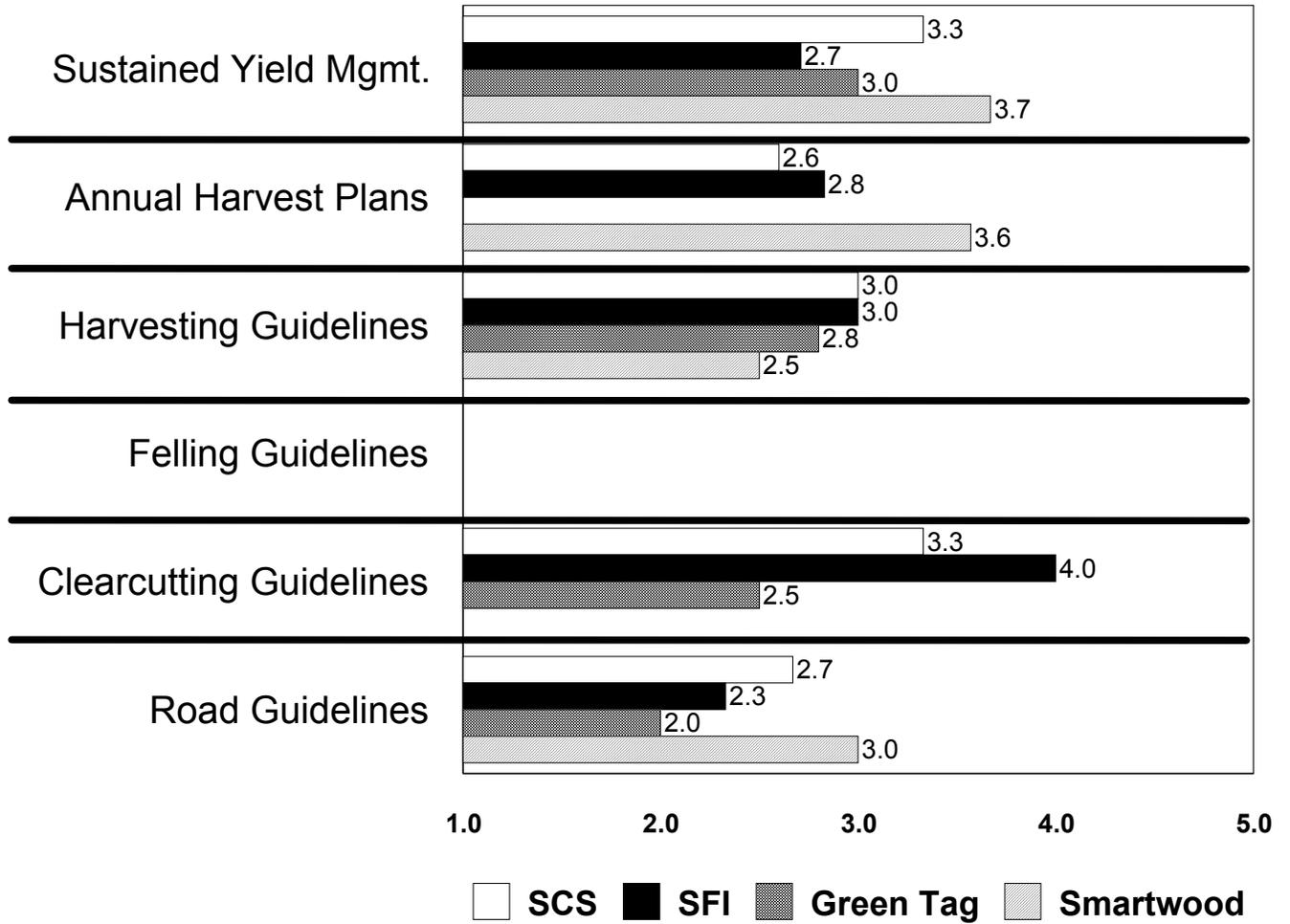


Figure 2 (continued)

All Plans Combined Timber Management Elements

Scale: 1=Highly Favorable; 2=Favorable; 3=Adequate; 4= Unfavorable; 5= Highly Unfavorable

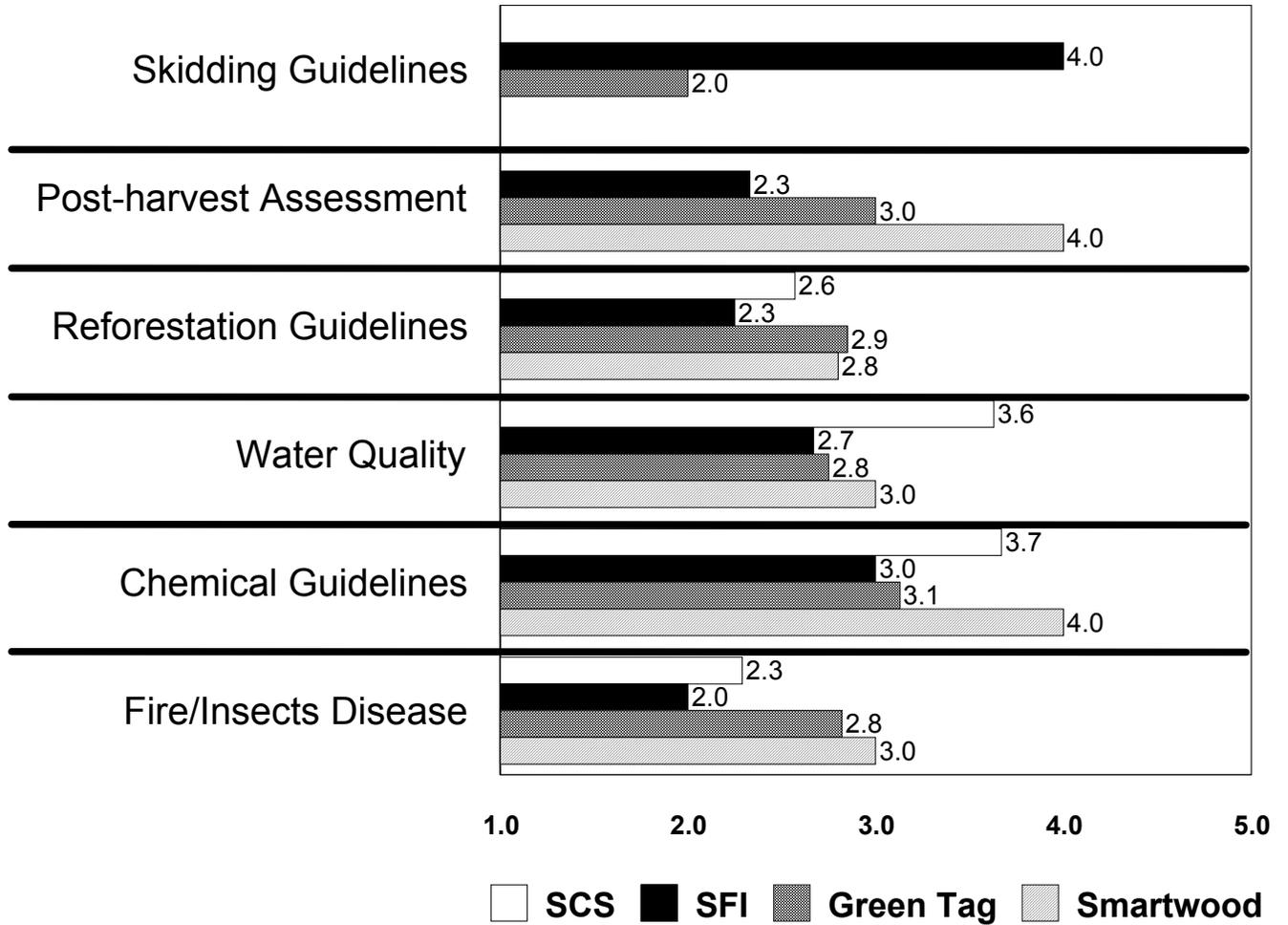


Figure 3.

All Plans Combined Environmental Elements

Scale: 1=Highly Favorable; 2=Favorable; 3=Adequate; 4= Unfavorable; 5= Highly Unfavorable

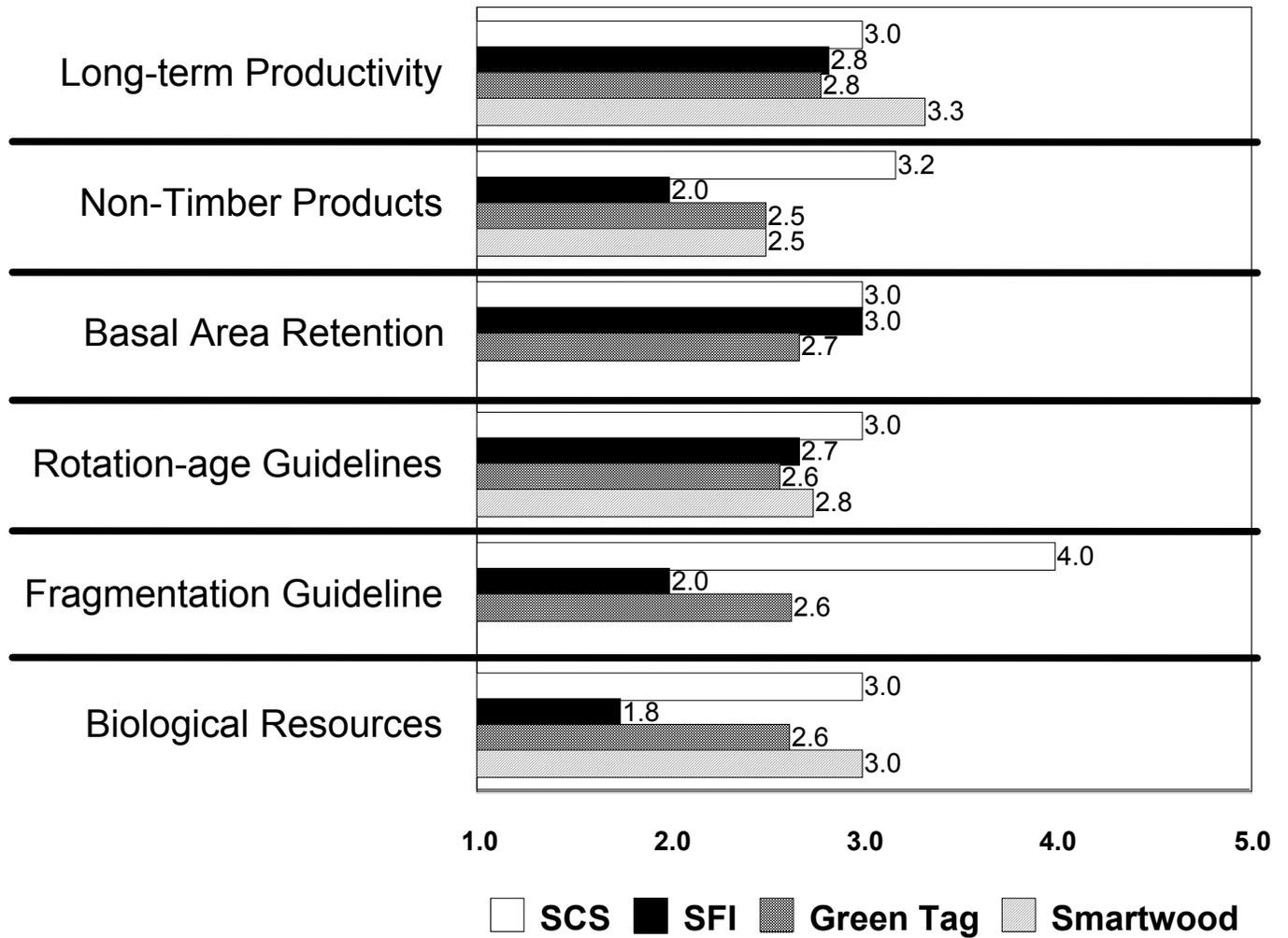
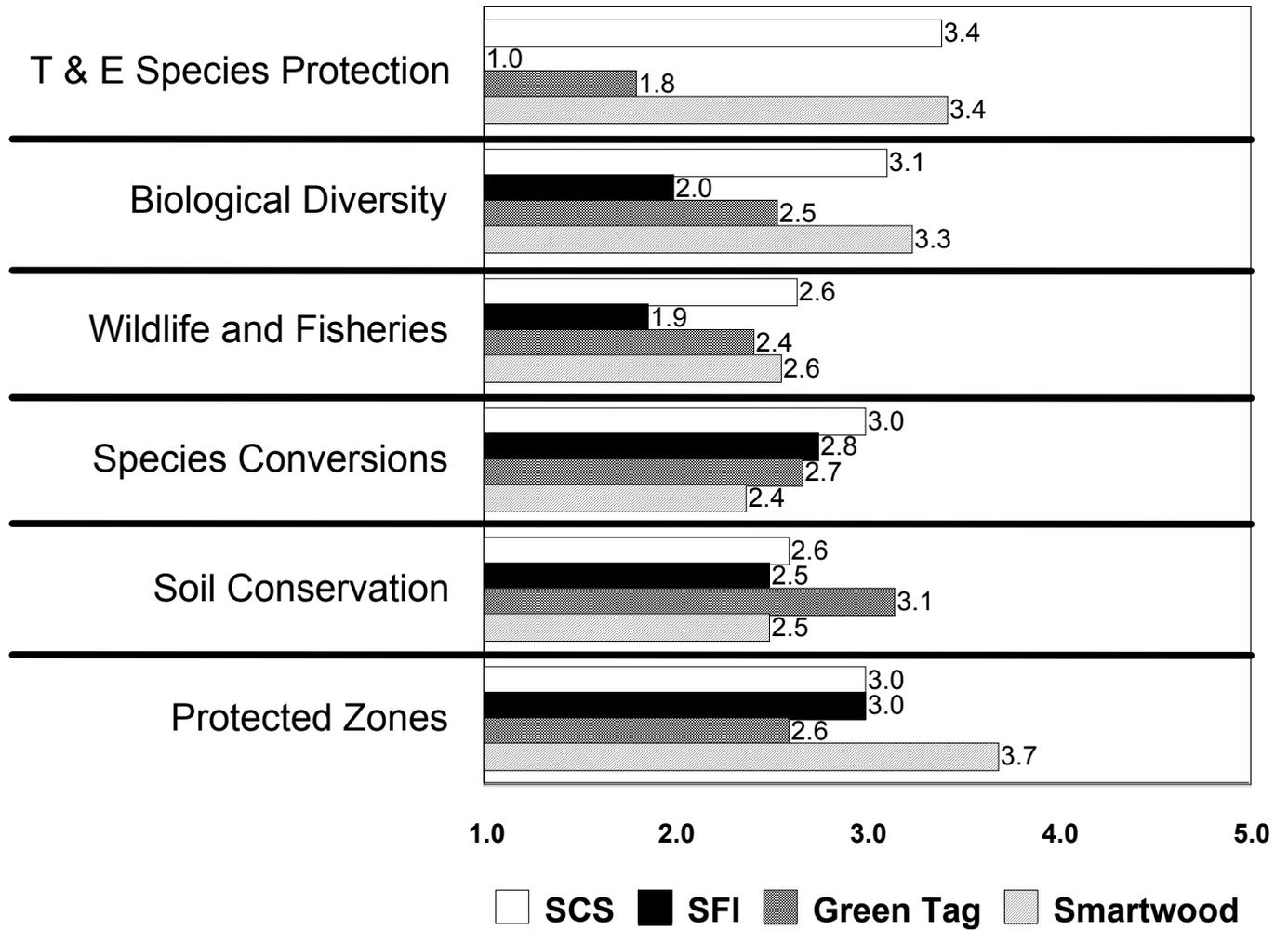


Figure 3 (continued).

All Plans Combined Environmental Elements

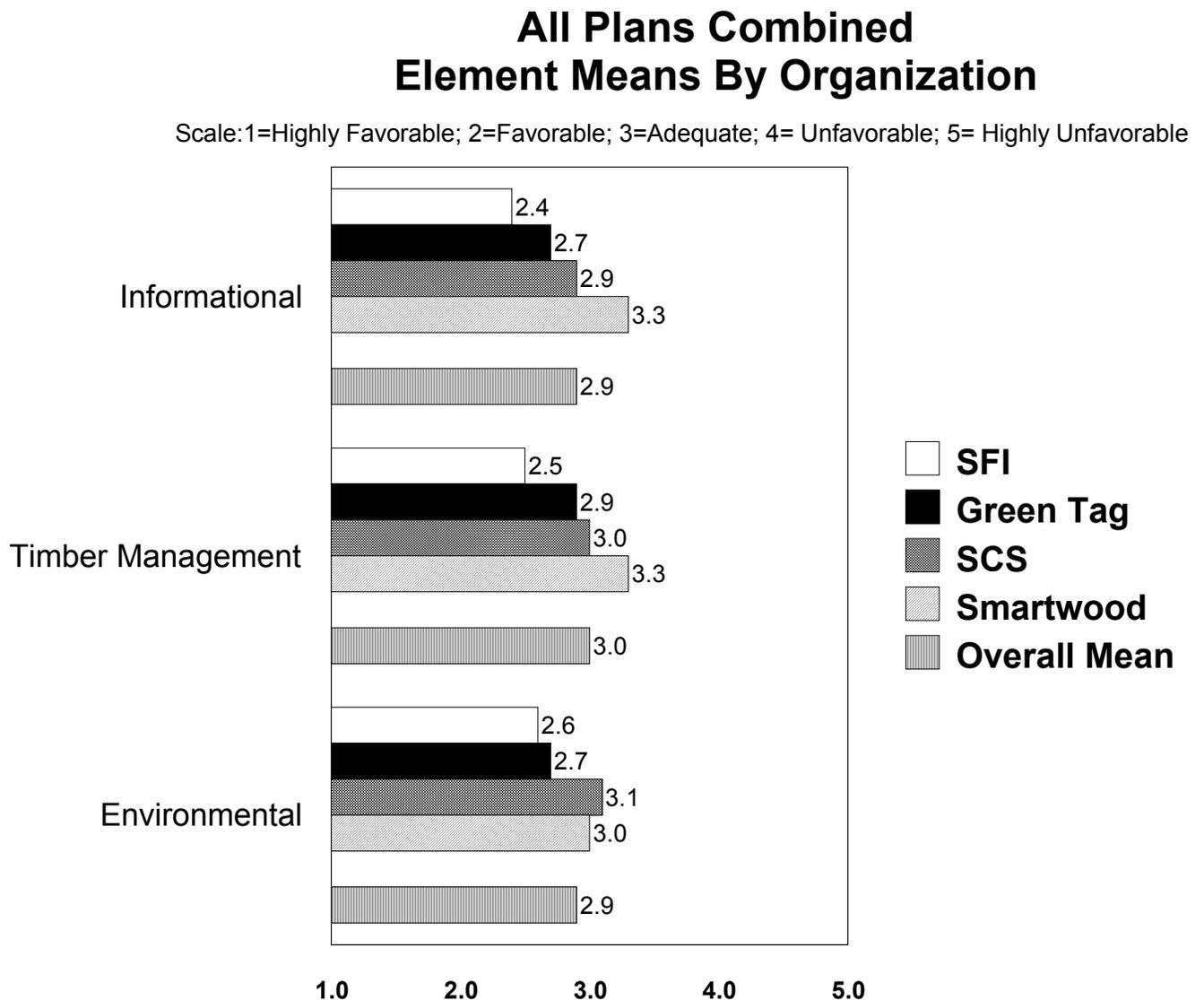
Scale: 1=Highly Favorable; 2=Favorable; 3=Adequate; 4= Unfavorable; 5= Highly Unfavorable



Stewardship Plans by Aggregated Elements

On average for a combined index of all Informational Elements (**Figure 4**), responses ranged from the SFI auditors rating of 2.4 (Favorable) to the SmartWood auditors' 3.3 (Adequate) rating. The overall mean for Informational Elements across all certifiers was 2.9, or very close to Adequate. On average for the index of Timber Management Elements, the range was again bounded by the SFI auditors' 2.5 (Favorable) evaluation and the SmartWood auditors' 3.3 (Adequate) evaluation. The overall mean for Timber Management Elements across all certifiers was 3.0, or Adequate. Finally, results for the index of Environmental Elements show that SFI auditors rated the plans 2.6 (Favorable) and SCS auditors rated them 3.1 (Adequate). The overall mean for Environmental Elements across all certifiers was 2.9, or very close to Adequate.

Figure 4.



Overall Comparison Between Plans and Certification Likelihood

Auditors were asked to compare the Stewardship plans forest management plans that had been certified under their respective organizational standards and guidelines. Using a five-point scale of: 1=Highly Favorable, 2=Favorable, 3=Adequate, 4=Unfavorable and 5= Highly Unfavorable, the Louisiana Stewardship plans on average compared adequately (3.0) under the SFI standard, between adequate and unfavorable for SCS' guidelines (3.3), and unfavorable for both SmartWood (3.9) and Green Tag (4.0) certification systems. Finally, auditors were asked to estimate the likelihood that the Louisiana Stewardship forests represented by these management plans would receive certification assuming an audit proved that the Stewardship plans were being implemented as written. The scale used was: 1=Highly Unlikely, 2=Likely, 3=Possible, 4=Unlikely and 5=Highly Unlikely. Compared to the SCS (2.9) and SFI standards (2.8) , Stewardship forests were deemed “Possible”, Green Tag auditors estimated the chances of certification as between “Likely” and “Possible” (2.6), and SmartWood auditors estimated the likelihood of certification between “Possible” and “Unlikely” (3.4).

Evaluating Missing Elements

To identify which certification elements were not found in the selected Stewardship management plans, the responses “Cannot Assess” and “Did Not Assess” were evaluated. **Table 2** contains a generalized interpretation of the level of acceptance for each element taking into account these additional possible responses.

Table 2. Generalized Interpretation of the Level of Acceptance for each Study Certification Element

Information Elements

General Information...	favorable to adequate
Forest Security... ..	cannot assess
Management Plans ...	adequate
Management History...	normally distributed from highly favorable to highly unfavorable; midpoint of adequate
Harvest Levels ...	bimodal; adequate and cannot assess

Timber Management Elements

Sustained Yield Mgmt.	bimodal; adequate and cannot assess
Annual Harvest Plans ...	no clear pattern
Harvesting Guidelines...	cannot assess
Felling Guidelines ...	cannot assess
Clearcutting Guidelines	cannot assess
Road Guidelines ...	cannot assess
Skidding Guidelines ...	cannot assess
Post-harvest Assessment	cannot assess
Reforestation Guidelines	favorable to adequate
Water Quality	adequate
Chemical Guidelines ...	cannot assess
Fire/Insects Disease	split between favourable, adequate, and cannot assess

Environmental Elements

Long-term Productivity	bimodal; adequate and cannot assess
Non-Timber Products ...	bimodal; adequate and cannot assess
Basal Area Retention ...	bimodal; adequate and cannot assess
Rotation-age Guidelines	cannot assess
Fragmentation Guidelines	cannot assess
Biological Resources...	cannot assess (except for Green Tag-adequate)
T & E Species Protection...	cannot assess
Biological Diversity ...	no pattern
Wildlife and Fisheries...	adequate
Species Conversions ...	bimodal; adequate and cannot assess
Soil Conservation	no pattern
Protected Zones	no pattern

Summary

Non-industrial private forestland (NIPF) owners comprise a significant part of forest ownership in the United States. Studies have shown that NIPF goals and objectives for their forestland are diverse. In the context of forest certification, initiatives are being developed by certifiers to accommodate the unique ownership characteristics of NIPFs.

To date, there has been scant research that looks at state-level programs that perform in a fashion analogous to private NIPF certification. This research partially fills that gap by looking at the potential for participation by the Louisiana Department of Agriculture and Forestry through the Stewardship Program as a possible alternative to third-party certification.

On average, the fourteen Forest Stewardship Program management plans do not compare favorably to the certification schemes represented in the study. The AF&PA SFI program rated highest for all critical element areas examined (Informational, Timber Management and Environmental) while the plans compared least favorably to SmartWood criteria.

The authors suggest that mutual recognition agreements between the Stewardship Program and the certification organizations would benefit all parties, with the biggest potential benefit going to forest landowners. Prior research indicates showing that Louisiana NIPF landowners prefer state certification (in theory, at least), which is a strong case for growing the Stewardship program.

This information may help in the development of viable alternative strategies to third-party certification in Louisiana as well as help landowners develop certification planning and marketing tools for those that wish to participate in the third-party certification process.

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