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FOREST SERVICE

The All-Resource System's Cost Features and Areas for Future Improvements



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The Honorable Sidney R. Yates
Chairman
The Honorable Ralph Regula
Ranking Minority Member
Subcommittee on Interior
and Related Agencies
Committee on Appropriations
House of Representatives

At the Subcommittee's direction, we have assisted the Forest Service during the past 2 years in the design and development of a system for reporting costs related to National Forest System programs. At last year's Forest Service appropriations hearings, we advised the Subcommittee on the progress of this effort in a report entitled, Forest Service: Status of the All-Resource Cost Reporting Project (GAO/AFMD-89-65, April 14, 1989). That report also identified the type of financial information then proposed for the new system. The purpose of this report is to respond to the Subcommittee's request for an update on the Forest Service's progress in developing the all-resource cost reporting system, to highlight the basic features intended for the system, and to discuss areas where the Forest Service can improve the system design as it continues to be developed.

Results in Brief

Since last year's hearings, the Forest Service has documented the initial design for the all-resource cost reporting system and has begun testing aspects of the system. The initial design of the system identified the appropriations to be accounted for and the programs and related activities for accumulating costs. In addition, it described the system's basic features.

Development work on the all-resource cost reporting system is continuing. As part of that effort, the Forest Service can improve the system's proposed basic design in several areas. These areas include (1) charging or allocating elements of protection costs to National Forest System programs, (2) reporting revenue and nonrevenue activities separately, (3) including regional office and headquarters overhead costs that benefit National Forest System programs with forest level costs when necessary for special purposes, such as when setting fees, and (4) ensuring that costs are charged to the correct program activity. Improvements such as these would help ensure that the system conforms with federal

Objectives, Scope, and Methodology

The objectives of this report are to outline the Forest Service's progress in developing the all-resource cost reporting system, to describe basic features proposed for the system, and to discuss areas where the Forest Service can improve the system as it continues to be developed.

Our work in assisting the Forest Service develop the all-resource cost reporting system included serving as team members on a joint project team. The team's work included collecting data on programs and cost at the forest level. Since April 1989, when we last reported to the Subcommittee, the team has made visits to two additional national forests, bringing the number of forests visited since the project's inception to six. The Service selected the six forests we visited since they volunteered to participate in the project. They represent a range of different National Forest System programs. (See appendix I.) At these forests, the team developed case studies on forest programs and costs, which were used as the basis for proposing financial reports for accumulating costs and revenues and for measuring accomplishments. Report formats which could be produced by the all-resource cost reporting system were developed. The team also identified sources for obtaining the data to be included in the reports.

We worked closely with the Forest Service throughout the project. This work included attending meetings and conferences at which development of the all-resource cost reporting system was discussed, reviewing draft materials related to the system, and providing our views on the system and federal accounting requirements.

In gaining an understanding of the system's basic design, we reviewed the Forest Service's proposed package of detailed instructions to field staff in nine national forests where aspects of the proposed system are being tested. We also reviewed a status report on the system prepared by the Forest Service in February 1990. In addition to the work conducted at the forests, we discussed progress and problems in developing the all-resource cost reporting system with managers at Forest Service headquarters.

Our work was conducted from July 1988 through April 1990. Responsible Forest Service officials provided comments on this report. These comments are presented and evaluated throughout the report.

seven programs are carried out through various activities related to forest operations. For example, the activity of grazing management is performed as part of the range program. Some of these programs involve revenue-producing activities, in which case the all-resource cost reporting system will also accumulate revenue information.

The Forest Service has identified the programs and program activities for which the all-resource cost reporting system will report cost and revenue information. A complete list of National Forest Service programs and the related program activities for which reports would be prepared are shown in appendix II. This appendix also identifies which of these programs and activities have collection of revenue.

In addition to identifying appropriations to be accounted for and programs and program activities for which reports will be produced, the project has progressed to the point where we can advise the Subcommittee on some of the basic features planned for the system. The Forest Service's initial design proposal includes the following major aspects.

- Cost and revenue information is expected to be provided on an accrual basis, as required by federal accounting requirements. As presently proposed, this type of information would be reported for National Forest System programs and program activities annually.
- The system would be capable of matching revenue generated, if any, with the costs incurred to produce that revenue. This matching would be provided through separate reports for each program for each forest.
- Financial information would be derived from the Department of Agriculture's central accounting system, which maintains general ledger accounts for the Forest Service. This would help ensure that all-resource cost reporting information is consistent with other accounting reports for the Service, such as a complete set of financial statements, including a balance sheet report.
- Some indirect costs at the forest level, such as those incurred for the general administration of forest operations, are planned to be allocated to program activities.
- Output measures related to program activities are being identified and would be reported. This would enable cost data to eventually be developed on the basis of each program activity's output and would help forest managers monitor their progress in implementing forest plans.

The national forests have been proposed as the cost accounting centers for reporting costs and revenues under the all-resource cost reporting system. Forest level cost reporting was proposed because the forests are

all-resource cost reporting system during future developmental work. These areas are listed below.

- Charging or allocating elements of "protection" costs to National Forest System programs.
- Segregating costs and revenues related to program activities for better reporting.
- Allocating regional office and headquarters overhead costs that benefit National Forest System programs with forest level costs when necessary for special purposes, such as establishing user fees.
- Charging costs to the correct program activity.

We believe that improving the initial all-resource cost reporting system's basic design in these areas would help ensure conformance to federal accounting standards and enhance the usefulness of the system's reports to the Congress and the public. We will continue to work with the Service on these matters.

Charging or Allocating Protection Program Costs

The Forest Service has proposed that some of its activities (such as insect and disease suppression, law enforcement, and fire protection) be reported in the all-resource cost reporting system as a separate program entitled, "protection." The Service reasons that by law, regulation, and congressional direction, these activities have separately identified goals and are not linked to accomplishing National Forest System program objectives. Further, the Service has advised us that these activities would continue even if other programs stopped.

We believe that the term "protection" inherently identifies a causal relationship between the programs and activities requiring protection and the costs of rendering protection. The cost allocation concepts promulgated by the former Cost Accounting Standards Board suggest that such costs be charged to the relevant cost objectives. We believe that, in the case of the all-resource cost reporting system, at least a portion of protection costs would be chargeable or allocable to National Forest System programs and activities.

Further, the National Forest Management Act of 1976, Multiple-Use Sustained-Yield Act of 1960, and other acts identify the broad resource management programs applicable to the National Forest System. We believe costs incurred in carrying them out, including at least some of those costs incurred by the protection activities should be reported as part of the costs for these programs.

Separately Reporting Costs and Revenues for Revenue and Nonrevenue Program Activities

An objective established by the Chief of the Forest Service for the all-resource cost reporting system was that it be capable of matching expenses with revenues for each program's revenue-producing activities. This objective is consistent with federal accounting requirements for matching costs with revenue.

The system's program activity Statement of Revenues and Expenses would show costs and revenues related to each program's activities. However, these reports do not clearly indicate which activities are revenue-producing and which are not. We have discussed this with the Service, and suggested that better disclosure would occur if the revenue-producing activities were clearly shown separately from the nonrevenue-producing activities. See appendix III for an example.

In commenting on our report, Service officials stated they would consider providing disclosure as outlined above during the fiscal year 1991 test year. The Service's major concern is that the system should not be overly complex, especially in areas where they believe line managers do not yet see a value to such information. While we agree with the Service's view as to complexity, we believe that overall financial reporting would be enhanced by reporting in our suggested format.

Allocating Regional Office and Headquarters Overhead Costs for Special Purposes

The all-resource cost reporting system's basic design incorporates the concept of responsibility reporting. Under this concept, reports at the forest level show costs which are controllable at that level. This information is, therefore, a tool for forest managers' use in controlling the costs for which they are responsible.

According to a Forest Service official, however, regional and national office overhead costs benefit, but are not directly chargeable to a forest's National Forest System program activities. For example, a regional review team may visit a forest to ensure procedures, paperwork, and project activities conform with regional and/or national priorities. Publication of regional guides for land management planning and regional review and comment on national forest plans are other examples.

For certain purposes, such as for establishing user fees, the Forest Service would have to know the total costs related to program activities, including regional and headquarters costs that indirectly benefit programs at the forest level. Understated cost information would result if these costs were excluded in instances where knowledge of the full costs of a forest's program activities is necessary.

procedural changes would be needed to define and uniformly apply work descriptions and related cost codes.

At your request, we have studied the issue of whether the Forest Service is charging costs properly in greater detail than is discussed in this report. The results of that work will be reported to you separately. However, Service officials told us that this particular issue is a continuing item of concern among Service managers.

Conclusions

The Forest Service has made progress since last year's appropriations hearings in developing an all-resource cost reporting system. Appropriations to be accounted for and program and program activities for accumulating costs have been identified. Also, the Forest Service has completed an initial design for the system at the forest level and aspects of the system are being tested.

As proposed by the Forest Service, the basic design of the all-resource cost reporting system is expected to have many positive features. However, as discussed in this report, there are instances where the basic design can be improved. In this connection, the Forest Service has stated that it will determine the proper portions of "protection" costs to be charged to National Forest System programs. Furthermore, the Service said it will design and implement a means to separately report costs and revenue related to revenue and nonrevenue program activities. Finally, when necessary for special purposes, regional and headquarters overhead costs that benefit forest level operations are to be included with forest cost.

Agency Comments

Responsible Forest Service officials provided comments on this report. They agreed with our findings, and their comments are presented and evaluated throughout the report.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to the Secretary of Agriculture, the Chief of the Forest Service, interested congressional committees, and other interested parties. Copies will also be made available to others upon request.

National Forest System Revenue and Nonrevenue Programs and Activities

Program and activity	Revenue	Nonrevenue
Minerals program		
Leasable Minerals	X	
Mineral Materials	X	
Locatable Minerals		X
Reserved and Outstanding Rights		X
Protection program		
Special Uses - General	X	
Real Estate (Lands)		X
Insect and Disease Suppression		X
Law Enforcement		X
Fire		X
Range program		
Grazing Management	X	
Vegetation Management		X
Horses and Burros		X
Recreation program		
Developed Recreation	X	
Special Uses Recreation	X	
Dispersed Recreation		X
Wilderness		X
Cultural Resources		X
Timber program		
Timber Purposes	X	
Other Purposes	X	
Personal Use	X	
Watershed program		
Watershed		X
Air		X
Wildlife and fish program		
Wildlife		X
Inland Fish		X
Anadromous Fish		X
Threatened, Endangered, and Sensitive Species		X

Example of Program Summary Statement of Revenues and Expenses Report

National Forest A

SUMMARY PROGRAM STATEMENT OF REVENUE AND EXPENSES
Fiscal Year 19xx

(Accrual Basis)

National Forest System Programs								
	Water	Range	Timber	Recreation	Wildlife & Fish	Minerals	Protection	Total
REVENUES								
EXPENDITURES								
Operations and Maintenance Expenses								
Investment Allocation Costs								
Subtotal Program Expenditures								
Allocated Indirect Costs								
Total Expenditures								
Balance Before Provision for Payments to States								
Payments to States								
Balance After Provision for Payments to States								

Note: This is an example of the program summary statement at the forest level. Comparable statements will be prepared at the regional and national levels. Certain terms, such as expenditures, used in this report may not agree with those used to describe accrual-based accounting.

Source: Forest Service

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Example of Program Activity Statement of Revenues and Expenses Report

National Forest A						
RECREATION PROGRAM ACTIVITY STATEMENT OF REVENUES AND EXPENSES						
Fiscal Year 19xx						
(Accrual Basis)						
Recreation Program Activity						
	Revenue producing ^a			Nonrevenue-producing ^a		Total
	Developed Recreation	Special Uses	Dispersed Recreation	Wilderness	Cultural Resources	
REVENUES						
Program Receipts						
Cooperative Work						
Reimbursements						
Other Collections						
Interest and Penalties						
Total Revenues						
EXPENDITURES						
Operations & Maintenance						
Operations						
Coordination						
Maintenance						
Subtotal						
Investment Allocation Costs						
Facilities/Sites Depreciation						
Road Structures & Improvements						
Depreciation						
Trails Depreciation						
Subtotal						
Total Program Expenditures						
Balance Before Indirect Costs						
(Revenues Less Program Expenditures)						
Indirect Costs						
General Administration						
General Facilities Depreciation						
Land Management Planning						
Subtotal						
Total Expenditures						
Balance (Revenues Less Expenditures)						
Key Measures of Program Accomplishments						

Note: Items are for illustrative purposes; actual report line items will vary by National Forest System program. Comparable statements will be prepared at the regional and national levels. Certain terms, such as expenditures, used in this report may not agree with those used to describe accrual-based accounting.

^aRepresents an example of GAO's suggestion for improving disclosure of financial information discussed in the report.

Source: Forest Service

National Forests Visited During Development of the All-Resource Cost Reporting System

Carson National Forest, New Mexico

Clearwater National Forest, Idaho

Humboldt National Forest, Nevada

Medicine Bow National Forest, Wyoming

National Forests in Mississippi, Mississippi

White Mountain National Forest, New Hampshire

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This report was prepared under the direction of Jeffrey C. Steinhoff, Director, Financial Management Systems and Audit Oversight. Major contributors are listed in appendix V.

A handwritten signature in black ink, appearing to read "Donald H. Chapin". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Donald H. Chapin
Assistant Comptroller General

In this connection, the former Cost Accounting Standards Board's cost concepts suggest that where cost information will be used to set prices, all costs associated with running an agency as a whole should be allocated to the final cost objective. We believe that the Forest Service's all-resource cost reporting system's basic design would be strengthened if it provided a means for allocating regional office and headquarters costs that indirectly benefit program activities at the forest level when such information is necessary for special reporting purposes. One possible way of doing this would be by allocating these costs to forest level program activities through cost finding techniques.

In commenting on our report, Service officials expressed the view that they saw limited application of full costing from a line management standpoint. They expressed their concern with the complexity involved in apportioning regional and headquarters overhead; however, they agreed to work to develop an appropriate methodology by which to accomplish allocation of these costs.

Charging Costs to the Correct Program Activity

The information reported by a system is only as good as the care that is taken in capturing and accumulating that system's data, and the underlying internal controls which ensure consistent, timely, and reliable reports. Regarding such proper charging of costs, the former Cost Accounting Standards Board's cost accounting standards state that "expenses that can be associated on the basis of causal or beneficial relationship with a specific segment should be charged directly to that segment." For the all-resource cost reporting system, this means that when a cost can be traced directly to a program activity, it is a direct cost of providing that activity and must be included as part of that activity's costs.

In 1986, we reported that the Forest Service's existing accounting system may not provide accurate cost information.² At the time, we expressed our concern that a proposed reporting system may not provide sufficient detail to compare actual costs and benefits.

We reported to you last year that implementation of a system such as the all-resource cost reporting system requires procedural changes to ensure that data are aggregated and reported correctly. For example,

²Timber Sale Accounting: Analysis of Forest Service's Proposed Timber Program Information Reporting System (GAO/AFMD-86-42, April 4, 1986).

For example, according to the criminal investigator at one forest we visited, law enforcement costs at that forest consisted of the following categories (1) costs for national forest personnel investigating a suspected timber fraud situation, (2) contract costs for a county sheriff to patrol specified campgrounds, and (3) costs for training certain forest personnel in law enforcement skills. Forest Service officials also related that at times the Service will contract with a county sheriff to patrol remote areas of the forest with the objective of providing a general presence and protection of the public at large.

We believe activities in the first two of these categories directly benefit the timber and recreation programs, respectively, and the costs incurred in performing these activities are directly chargeable to these programs. The third activity cited benefits all National Forest Service programs and a portion of the related costs are allocable to each of these programs. Finally, the last activity cited does not directly or indirectly benefit any of the programs and would be a cost of protection unrelated to any natural resource program.

As another example, the Timber Staff Officer at a case study forest indicated that insect and disease suppression activities may be undertaken to protect any National Forest System resource from infestations. For instance, these activities enable timber to grow for harvest. In this case, some insect and disease suppression costs are chargeable directly to the timber program. To the extent insect and disease suppression activities generally protect forest resources, these costs could be considered indirect costs of all National Forest System programs.

By charging at least a portion of forest protection activities directly or indirectly to National Forest System programs, the Forest Service has an opportunity to more fully accumulate costs associated with program activities. By doing so, the full cost of these programs, together with the related result of operations where services are provided for a fee, would be available to the Congress and others.

In commenting on our report, the Service agreed that in viewing the costs related to the protection category, some costs would be considered as direct costs, some could be viewed as indirect costs needing allocation, and some remain a cost of protection. During the continuing work on all-resource accounting, the Service will re-examine the costs to determine the most appropriate disposition of the costs contained within the category.

a primary organizational unit held accountable for planning, implementing, and managing resource programs. The Service believes that cost and revenue information produced at the forest level would provide information needed for management control at higher organizational levels as well.

The following two reports would be prepared to accomplish cost and revenue reporting at the forest level.

- Program Activity Statement of Revenues and Expenses. This report would be prepared for each National Forest System program and is capable of displaying expenses and revenues for each program's revenue-producing activities. For nonrevenue-producing activities, the report would include expenses, and any receipts applicable to that activity. The types of expenses that are intended to be reported for both types of program activities include the costs of planning, preparing, and administering programs and specific types of investment-related costs (such as depreciation for roads, trails, and facilities). Further, expenses and revenue for all of a program's activities would be combined on the report to show excess of income over expenses for the program. An example of this report's format, as proposed by the Forest Service, is shown as appendix III.
- Program Summary Statement of Revenues and Expenses. Based on the program activity Statement of Revenues and Expenses report, this report would provide a summary of expenses and revenues displayed by program for each forest. An example of this report's format, as proposed by the Forest Service, is shown as appendix IV.

In addition to these forest level reports, similar reports will be produced at the regional and headquarters office levels. Reports at these levels will summarize the forest level reports, as well as report costs related to regional and headquarters operations. Together, these reports would facilitate issuing to the public a comprehensive reporting package that would disclose the full cost of National Forest Service program operations.

Areas Where the Service Can Improve Basic System Design

While the Service has developed the basic features for the forest level all-resource cost reporting system, further development is planned for fiscal year 1990. This work includes refining the system's concepts. In working with the Forest Service on this project, we noted areas where we believe the Service can improve the basic design proposed for the

Progress on the All-Resource Cost Reporting System and Its Basic Features

In last year's report, we advised the Subcommittee that the Service was expected to finish outlining the system's design during fiscal year 1989. A preliminary design of the all-resource cost reporting system applicable at the forest level has been developed and the Service began testing the system at nine national forests throughout the country in October 1989. Following the fiscal year 1990 test, the Service will (1) evaluate the system's concepts, (2) refine these concepts to meet information needs of the Congress, the public, and Service managers, (3) identify future testing and development needs, and (4) prepare an implementation schedule.

The Forest Service's all-resource cost reporting system is intended to provide meaningful, useful, and reliable cost information. The first steps in developing a system to provide this information are identifying the appropriations to be accounted for and the programs and program activities for which costs will be reported. In addition, basic features of the system must be articulated and report formats must be devised. The Forest Service has progressed in these areas, as discussed below.

We believe that appropriations to be accounted for have been adequately identified. The system would include those costs which stem from all National Forest System appropriations and cooperative agreements involving management of a national forest. Costs related to the Research or the State and Private Forestry appropriations would not be included in the system, unless such costs are incurred in support of national forest activities. Nor would the system include transfer appropriations, which primarily include appropriations transferred from the Department of Labor to the Forest Service for its human resources program.

The programs defined by the project team for reporting costs through the all-resource cost reporting system are: (1) range, (2) minerals, (3) recreation, (4) wildlife and fish, (5) watershed, and (6) timber.¹ These are also the National Forest System programs prescribed through the Multiple-Use Sustained-Yield Act of 1960 and the Mining Act of 1872, among others. The Service believes that, in addition to these programs, its management of national forests involves protection of forest resources. Therefore, it has established an additional program category called "protection." (This is discussed further in the next section.) These

¹The Forest Service presently has a Timber Sale Program Information Reporting System, which we helped the Service develop and which has been of continuing interest to the Subcommittee. This system would ultimately be incorporated into the all-resource cost reporting system.

accounting requirements and would enhance the usefulness of information reported through the system.

Background

The Subcommittee and the Forest Service have been especially receptive to concepts and ideas that will provide Service managers with useful financial information. In its report on the Department of the Interior and Related Agencies appropriations bill for fiscal year 1989 (House Report 100-713), the House Committee on Appropriations directed us to assist the Forest Service in addressing cost accounting issues. Your August 31, 1988, letter, further directed us to work with the Forest Service to develop an outline of a system for reporting the cost of the Service's National Forest System's operations. More recently, the report from the Committee on Appropriations for fiscal year 1990 (House Report 101-120) stated that the Committee expects the Service to continue to work with us as it develops and tests the proposed system.

The Forest Service carries out its mission through three major areas—forest research, state and private forestry, and management of national forests and grasslands. Under this latter area, the Forest Service manages about 191 million acres of public land. These public lands, known collectively as the National Forest System, encompass 156 national forests and 19 national grasslands. This National Forest System includes several basic programs, such as range and recreation, for which the all-resource cost reporting system is being developed. The National Forest System is managed through nine geographic regions, headed by regional foresters. Each region consists of several forests headed by forest supervisors and each forest is divided into a number of districts headed by district rangers. In addition to the Chief of the Forest Service, these line managers are intended to be among the primary management users of the all-resource cost reporting system that is discussed in this report.

Under 31 U.S.C. 3511, the Comptroller General is required to establish accounting principles and standards for the federal government. These principles and standards are prescribed in Title 2 of GAO's Policy and Procedures Manual for Guidance of Federal Agencies. For guidance on specialized cost accounting issues, this document directs agencies to refer to the Cost Accounting Standards issued by the former Cost Accounting Standards Board.
