

Barriers to Integrating
Forest Planning and Budgeting
in the U. S. Forest Service

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INTRODUCTION

The Forest and Rangelands Renewable Resources Planning Act (RPA) as amended by the National Forest Management Act (NFMA) and the resulting regulations and manual direction have attempted to establish an integrated system that links planning and budgeting within the Forest Service. The planning process resulting from RPA/NFMA is a hierarchical process (Cortner and Schweitzer, 1983). That it is intended to be an iterative, integrating process is clear from the NFMA Regulations and the Manual direction describing the process.

From the Code of Federal Regulations (Part 219):

219.4 (a) . . . In this structure, regional planning is a principal process for conveying management direction from the national level to the forest level and for conveying information from forest level to the national level. The planning process is essentially iterative in that the information from the forest level flows up to the national level where in turn information in the RPA Program flows back to the forest level.

(b) . . . A portion of each national objective developed in the RPA Program shall be distributed to each region and be incorporated into each regional guide. Resource objectives shall be tentatively selected for each forest planning area. In formulating the objectives for each region and forest planning area, local supply capabilities and market conditions will be considered.

From the Forest Service Manual (Title 1900):

1913 . . . One of the major roles of the Program is to establish output targets and costs that form the basis for regional planning and budget formulation for Forest Service activities for the 5-year period between Program updates.

1913.21 . . . Implementation of the RPA Program is accomplished through assignment of program direction, objectives, and targets to the Regions, Areas, and Stations for their use in guiding regional and forest planning and Program Development and Budgeting.

1913.13 Data and information collected during forest planning . . . should be aggregated through the regional planning process in a manner which makes it transferable to the development of the RPA Program.

1920.2 . . . The objectives of land and resource management planning are: . . .

5. To serve as a source of information in developing the RPA Assessment and Program and to provide the means for implementing the National Forest System portion of the Renewable Resources Program.

1921.11 . . . Regional planning results in: . . .

4. The region's input and response to RPA alternatives.
5. The assignment of RPA Program targets to forests.

Although the Regulations and Manual Direction clearly

envision an entire process which results in linkages between planning and budgeting, in my experience working on a planning team at the Forest level I've seen little indication that there is much linkage between forest planning and the budgeting process. Now that forest plans are approaching completion, it is crucial to make the linkages which allow for implementation of the plans.

There are many barriers to integration between the forest planning and budgeting processes. Some of these barriers are inherent to the differences between planning and budgeting and it would not be easy (or even necessarily desirable) to get rid of them. Others are more a result of actions or characteristics of the Forest Service, and there may very well be changes that can be made to lessen these barriers. In either case, recognition and awareness of the barriers can improve the ability to deal with them, and thus increase the chances of making the linkages between land management planning and budgeting where they are most appropriate and necessary.

This paper examines the barriers to integrating budgeting and planning at the forest level, specifically as they relate to implementation of forest plans, and makes recommendations about how linkage can be improved to increase the likelihood of effective implementation.

BACKGROUND

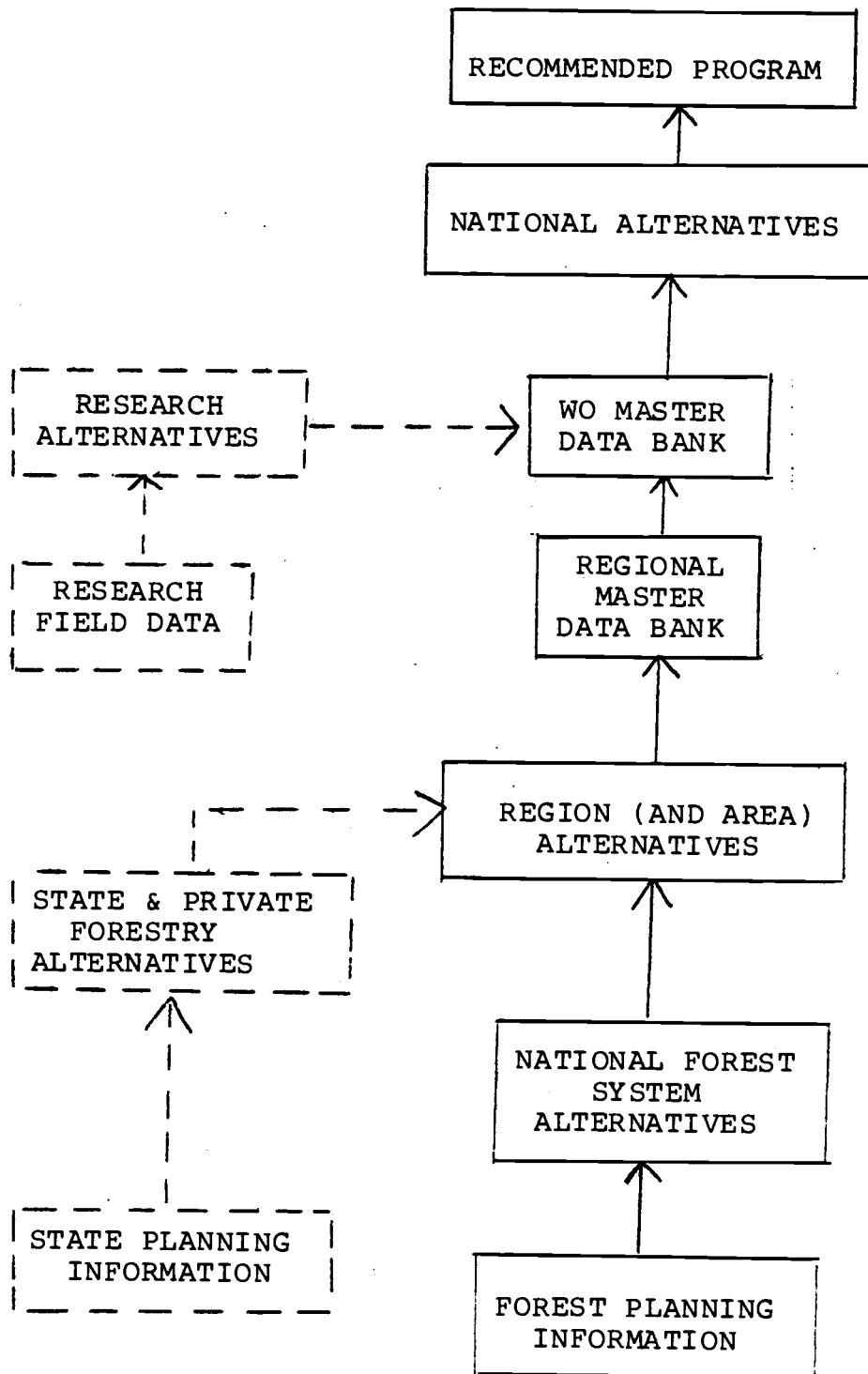
Resources Planning Act

The Resources Planning Act of 1974 (RPA) directs the U. S. Forest Service to develop an Assessment of the present and expected future demand, supply, and use of the nation's renewable resources. An Assessment is to be conducted every ten years. Along with the Assessment, the Forest Service is to develop a Renewable Resource Program, which consists of a set of alternatives for management of the National Forest System (NFS). These alternatives are to include the various options for development and management of the National Forest System, and are to show expected outputs, costs, and benefits. A Program is to be developed every ten years, with an update of that program every five years. Diagram 1^{1/} displays the process for developing the Program. The Assessment and Program, along with the President's Statement of Policy, are to be used in framing budget requests for the Forest Service activities outlined for the five or ten year period in question. The President's budget requests submitted annually to Congress are to state the extent to which

1/ Although there are three major branches of the Forest Service, the emphasis of this paper is on the National Forest System. Certain diagrams in the paper will make reference to the other two branches, State and Private Forestry (S&PF) and Research, but the paper will not explicitly discuss them. Omission of this discussion does not significantly affect the relevance of the paper, however, the reader should keep in mind that they are factors which also add to the complexity of the topic under consideration.

DIAGRAM 1

Information Flow in Developing the 1985 RPA Program



the activities and policies included in the budget meet those specified in the RPA program, and if they fail to meet the RPA program, the President must give Congress reasons for asking it to approve the request (PL 93-378, 1974).

National Forest Management Act

The RPA was amended in 1976 by the National Forest Management Act (NFMA). (Throughout this paper, the amended Act will be referred to as RPA/NFMA.) The RPA/NFMA requires that Regulations are to be issued describing the land management planning (LMP) process, and that plans are to be developed for each national forest in the NFS. The plans are to be developed by interdisciplinary teams, with extensive public participation, and they are to be revised at least every fifteen years (PL 94-588, 1976).

Land and Resource Management Planning

The Final Revised RPA/NFMA Regulations and Guidelines were issued in September 1982. These Regulations outline the planning levels and the requirements for the planning processes. The Regulations state that "a portion of each national objective developed in the RPA program shall be distributed to each region and be incorporated into each regional guide." In the same manner, resource objectives are to be tentatively identified for each forest within a region. The Regulations further note that local supply capabilities and market conditions are to be taken into account when determining the region and forest resource objectives (CFR 47, 1982).

At least one of the forest plan alternatives must incorporate the resource objectives of the RPA Program as presented in the Regional Guide, although the preferred alternative, as approved by the Regional Forester, may include adjustments to this "RPA alternative."

As stated in FSM 1920.2, the objectives of land and resource management planning are:

1. To determine the capability of a planning area to supply goods and services in an environmentally sound manner.
2. To determine the most cost-efficient method of supplying goods and services from a planning area to maximize net public benefits in response to society's demand.
3. To develop a fully integrated plan for management of the land and resources within a planning area.
4. To display in an easily understood manner, short and long-term management intent to the public; Federal, State, and local governments; and industrial and other users.
5. To serve as a source of information in developing the RPA Assessment and Program and to provide the means for implementing the National Forest System portion of the Renewable Resources Program.

A forest plan provides direction for all resource management programs, practices, uses, and protection measures for each administrative unit of the National Forest System. It

provides the guidance necessary to manage the various resources of the forest. The implementation schedule provides the more site-specific, project level decision-making necessary to achieve the objectives of the plan (FSM 1920).

The forest plan is developed by an interdisciplinary planning team (IDT) composed of planners and representatives of the various resource areas. The forest planning process legislatively established by RPA/NFMA is designed as a rational and comprehensive planning model (Cortner and Schweitzer, 1981). It can be summarized in the four steps outlined as one of the classic planning model descriptions (Shepard, 1985):

1. Establish weighted (ranked) goals.
2. Estimate consequences of all alternatives.
3. Evaluate alternatives by comparing consequences to weighted goals.
4. Pick that alternative with estimated consequences closest to weighted goals (Shepard, 1985).

The intent of the process is that once the plan has been finalized, the forest annually submits budget requests for sets of specific management activities consistent with that plan, implements activities to the extent budgeted, and monitors the results to ensure that planning expectations are realized (Cortner and Schweitzer, 1983).

Program Development and Budgeting

The program development and budgeting (PD&B) process of the Forest Service is an intermediate step in the Forest Service Management process which provides the mechanism for documenting and scheduling specific means of achieving goals and objectives specified in the RPA program as well as in the forest plans (FSM 1930). This process is outlined in Appendix A.

This PD&B process is part of the Department of Agriculture and Office of Management and Budget's zero base budget (ZBB) planning process (FSM 1930). Essentially, ZBB is a management process that provides for systematic consideration of all programs and activities in conjunction with the formulation of budget requests and program planning (OMB, 1977).

Traditionally, only increments to existing programs or new programs were subject to detailed scrutiny and justification by managers within public agencies. Ongoing or base programs weren't examined to determine if they effectively contributed to the agency's goals and objectives. Theoretically, under the ZBB concept, managers can no longer take the current budget for granted since both the base programs and the incremental programs are examined and must be justified (Sarant, 1978).

Zero base budgeting is somewhat of a misnomer. In reality, all program elements within a program are not necessarily

reviewed and justified under the ZBB approach. The thrust of the approach, however, is that it:

- deals with practically all elements of the managers' budget requests, not just increments or changes over the previous year.
- examines ongoing activites just as closely as proposed activities.
- provides the managers a range of choices in setting priorities and funding levels (Sarant, 1978).

RPA Field Guide

According to the Technical Field Guide for the 1985 RPA Process, Regional alternatives will form the basis for building national alternatives, and the Regional alternatives, in turn, are to be based on Forest alternatives which, for the first time, are to be based on forest planning information. Each Region will develop a set of alternatives based on national direction using the data base built from the spectrum of Forest planning alternatives, and the Washington Office (WO) will use the data from these Regional alternatives to build the national alternatives and a preferred alternative. However, these alternatives will not necessarily be just an aggregation of the Regional alternatives. While they will consider local and regional data, they will also include data on national priorities as well (Technical Field Guide, 1982).

The 1985 RPA Program was intended to represent major progress in making the Forest Service management model and its linkages actually work. In a discussion on the importance of good LMP-derived RPA data, the Field Guide points out that the RPA process brings land management planning information and data to the National level where it can interact with the policy, program, and budget formulation process. RPA acts as a transition link between LMP and Program Development and Budget (PD&B) in that the data from the land management plans are translated into potential operating programs Nationally and Regionally through the development of National alternatives.

BARRIERS

In researching the topic of this paper, several people on different forests working in both land management planning and budgeting were consulted. People at the regional and national levels of the agency, people within the Department of Agriculture, and people outside the government who have an interest in and knowledge of the planning and budgeting processes were also interviewed. Through these discussions and research of the available literature, two main points emerged:

1. There is no clear understanding of just how the processes of planning and budgeting can or should be linked.
2. There is strong interest in this subject currently.

With the completion of forest plans in sight, many people are becoming increasingly involved in trying to determine just what links can and should be made, in terms of personnel, data bases, computer software, etc. Task forces have been established at the various levels within the agency to explore the options for implementation, and a major aspect of this is the tie between land management planning and budgeting.

Before the appropriate linkages can be made, however, it is necessary to understand the barriers that currently exist which inhibit linkage.

Forest Service Management Model

One of the barriers to linkage is the delusion factor of the Forest Service Management Model (Wegner, 1985). The Forest Service Management Model (FSMM) outlines the general framework for integrated Forest Service planning, and the general relationships between planning levels and the different types of plans (Diagram 2).

While the regulations and manual direction make some reference to the need for adjustments throughout the processes in their description of the Forest Service Management Model, they do not nearly describe what actually goes on. If one follows the diagram or a description of the FSMM, one gets the impression that there is a flow of information which can be tracked from one level to another, through one process to another (i.e., from planning to budgeting, etc.) This simply is not the case.

There are many factors which enter in to this. One reason, of course, is that timing of the various processes has not yet allowed this to occur. Forest Plans are not yet completed, and by and large, were not available as input to the 1985 RPA Update. This is not the entire explanation, however.

Budgeting, despite attempts to make it otherwise, is basically an incremental process. The largest determining factor of the size and content of the national budget in any particular year is the previous year's budget. Most of the budget is a product of previous decisions, and there is little flexibil-

ity because of the tremendous commitments which are made years ahead. According to Wildavsky (1984), the beginning of wisdom about an agency budget is that it is almost never actively reviewed as a whole every year in the sense of reconsidering the value of all existing programs as compared to all possible alternatives. Instead it is based on last year's budget with special attention given to a narrow range of increases or decreases.

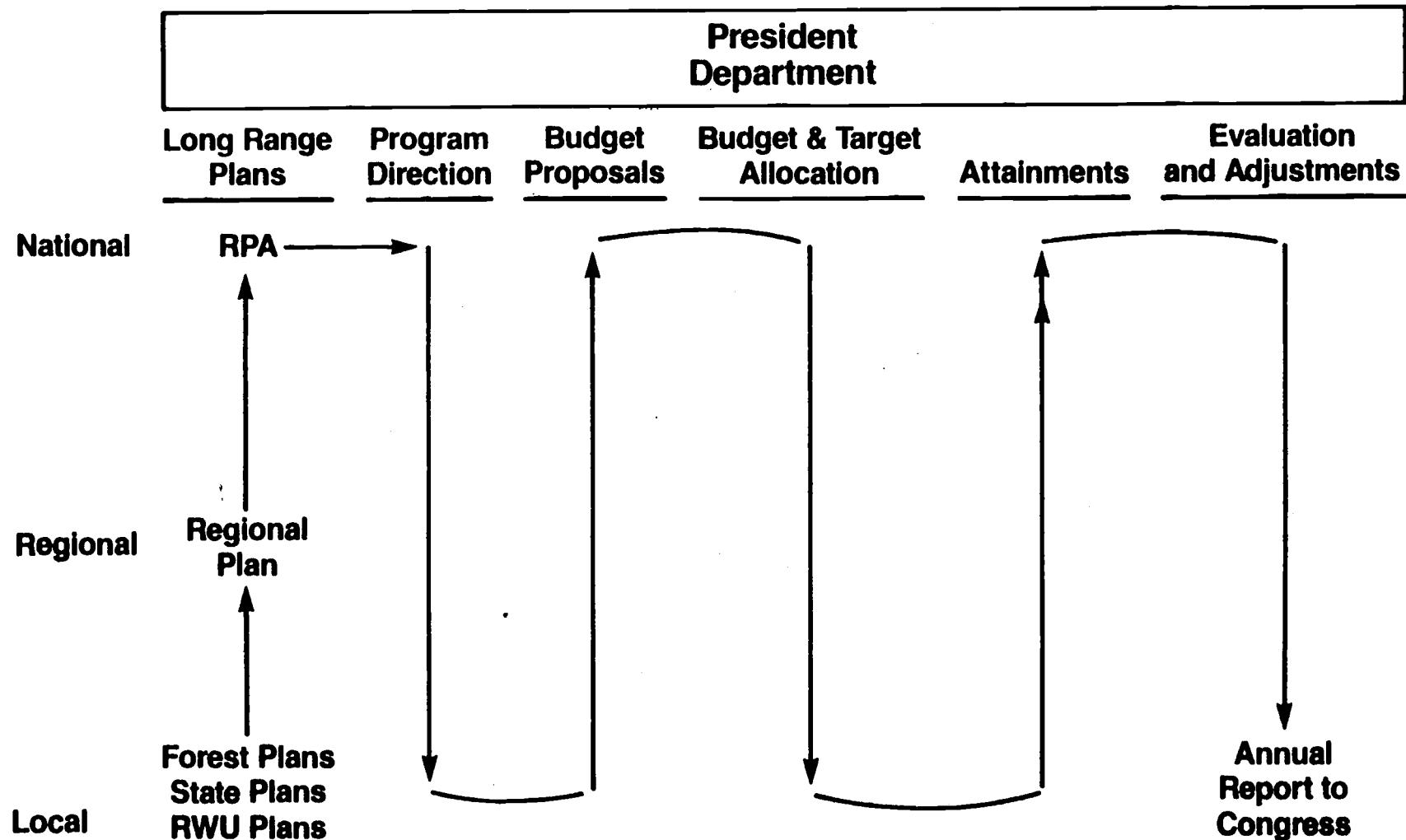
Certainly once a budget proposal leaves the Forest Service, it is subject to many opportunities for adjustment. But even before the budget proposal leaves the Forest Service, it more than likely has been adjusted from what was originally submitted by the forests to the regions and subsequently from the regions to the Washington Office.

National considerations always frame the decisionmaking process. Forest plans may or may not agree with the issues and concerns that are relevant at the National level. For example, the Chief must assess the current economic conditions of the country, the Administration's policies, the attitudes and interests of Congress, and public concerns. Thus the budget strategy recommended by the Chief may or may not be equal to the full RPA Program or the total of the land management plans (FS-PD&B, 1985).

Once the budget proposal has left the Forest Service, all kinds of adjustments are likely to occur. Again, many factors can enter in to this. Personalities influence the

DIAGRAM 2

Forest Service Management Model



budget, and an individual's personal interests and influence can play a significant role in budget determination (McDonald and Larson, 1985). For example, emphasis on a large timber program, while certainly having an historical basis, can also be attributed in the past several years to the almost single purpose drive and conservative orientation of the Secretary of Agriculture.

As a budget makes its way from the agency up through the Department to the Office of Management and Budget (OMB) and to the President and Congress, it becomes increasingly apparent that macroeconomics drives everything. The requirements are so great at these levels that it simply is not possible to take into account the microeconomic analysis that has become a key component of the process within the agency (McDonald and Larson, 1985). One of the manifestations of this is that the flow of information is disrupted. A common complaint by managers is that what they get back as a budget does not match what was sent up (FS-PD&B, 1985). This is not only in the amount budgeted, but also the proportions budgeted to various programs. One of the reasons for this is that budget information is submitted to the Department, OMB, and Congress in a different format than the way it is submitted by the forests that originally formulated the budget proposals. Forests submit budget proposals by codes (MIH codes) which represent activities associated with a project or program component. Budgets are translated into line item codes (Appropriation and Function codes) by the

Washington Office before the budget is submitted to the Department. Appropriation and Function codes are much more highly aggregated than the MIH activity codes, and are based on a different concept. As the name suggests, they are functionally oriented, thus not allowing for information about the interaction between functions in completing a particular project or program. Because they are based on different concepts, there can be considerable difficulty in aggregating MIH code budget proposals into Appropriation and Function codes, and then making the correct disaggregation when an (most likely different) appropriation is handed back down from Congress (OMB, the Department) to the agency for distribution to the regions, and subsequently the forests.

Different Processes, Different Goals

Certain barriers to integrating land management planning and budgeting exist because they are different processes, with different goals. Planning is comprehensive and looks to where we should be going in the future. Budgeting is incremental and short-term, focusing on what we can do in the present, constrained by the amount of money available (Cortner and Schweitzer, 1983).

Thus, in attempting to integrate both planning and budgeting within one overall process, considerable ambiguity is introduced. It is not clear from the regulations or manual direction just what should drive the process. Do we start with unconstrained future productive potential, or do we

take into consideration the political and legal constraints which are in existence today?

The ambiguity has resulted in varying interpretations, both within the Forest Service as well as by those outside the agency. Interpretation depends on who is doing the interpreting, and what the stakes are. For example, interests such as congressional committees, agency leadership, and commodity groups can be expected to be in favor of RPA Program targets which reflect unconstrained potential yields. The rationale, in terms of the agency, is that these provide leverage in requesting and receiving larger budgets. One strategy to increase budgets is to prepare goals for a particular program, and then be able to show that these goals are not being met because of lack of funds. In terms of the congressional committees, there would be a political advantage in that they would be perceived as being responsive to the demands of their constituents; essentially, it allows for saying that there can be more of everything the forest has to offer.

Presidents are more likely to prefer program levels based on budget realities rather than productive potentials because they have to face balancing the requests of all agencies, and need to maintain the ability to shift commitments in response to short-term political situations. As Cortner and Schweitzer suggest, this kind of change is more easily accomplished through the budget process than through the

planning process.

Somewhat along the same lines, those at the forest level may also prefer a program based on the political and budget realities rather than biological potential. Cortner and Schweitzer argue that there are political risks at the local level of presenting something which, while perhaps biologically or technically feasible, is not, in reality, likely to occur.

It is quite common to find inconsistent goals and objectives in government policies and programs. RPA/NFMA reflects the many goals and objectives of its legislative sponsors and the differing values of those responsible for its implementation. At each hierarchical level, there are different interests responding to different motives and incentives. These differing interests tend to diffuse efforts at building and maintaining an integrated system (Cortner and Schweitzer, 1983).

The ambiguity of the iterative hierarchical processes laid out by the implementing regulations of RPA/NFMA have resulted in another closely-related barrier to integrating LMP and budgeting. There is differing interpretation at the various levels (and among the various disciplines) as to whether the planning process is indeed a top-down process or one that is bottom-up. As can be seen from the Forest Service Management Model, there are provisions for both, with no clear definition of which end is driving the process.

For example, one can note the difference in the way the flow is presented between the RPA Field Guide and the NFMA Regulations, as discussed earlier. In the Field Guide it is presented as a process which is essentially built from the bottom up. Forest plan information is used to build Forest RPA alternatives, which are then used by the Region to build Regional RPA alternatives, which are subsequently used by the WO to build national RPA alternatives (Technical Field Guide, 1982). The NFMA Regulations, on the other hand, present it as a "top-down" process. The resource objectives of the national RPA Program are apportioned to the Regions, which then spread them out to the Forests within the Region (CFR 47, 1982). While this is consistent with the iterative concept of the overall planning model, it also points out that there is ambiguity in just where the process starts.

This is intended to result in a process whereby the various levels interact, allowing for flexibility in the process to incorporate the realities that exist at the various levels, to arrive at the "best" answer. What actually has resulted, however, is that the direction is interpreted in a manner that best fits the needs, beliefs, and objectives of the interpreter. There is no clear understanding of just what is driving the process, nor is there recognition of this lack of understanding.

Historically, the Forest Service has viewed its mission as that of meeting the needs and concerns of the local area.

This view goes back to the establishment of the Forest Service, when Secretary of Agriculture James Wilson asserted that "In the management of each reserve local questions will be decided upon local grounds" and that "general principles . . . can be successfully applied only when the administration of each reserve is left very largely in the hands of local officers, under the eye of thoroughly trained and competent inspectors" (Dana and Fairfax 1980).

The RPA/NFMA established a process that is both centralized and decentralized (Hewitt and Hamilton, 1982). The concepts of national planning and program budgeting are both centralizing forces, and both are primary features of RPA/NFMA planning. However, as pointed out above, many still support the idea of a decentralized structure which addresses the local needs and interests, and they are able to pursue this by perceiving planning as primarily a bottom-up endeavor. With this perception, a national plan (the RPA Program) is seen as basically a sum of individual forest plans. In this view, local rather than national criteria would drive the process. This is in sharp contrast to the view that the process is driven by national goals and that the role of forest planning is to meet the objectives determined in the national plan.

One of the results of the differences in perception is that there is not one iterative, interacting planning process. The various planning processes are conducted more or less independently of each other. In many instances during the

last RPA Program update, for example, those working on the forest plan had little or nothing to do with developing the Forest's RPA input. While some of this can certainly be attributed to the fact that forest plans were not yet completed and thus were not available to feed directly into RPA, there is more to it than that. RPA is viewed largely as a budgeting process or tool, and thus it is the responsibility of the "budget shop" to put together the RPA alternatives. While some forests attempted to tie this in with the forest planning process, in many cases, there was not even an attempt at this. This is not intended to disparage Forests for this. It is perfectly understandable, in fact reasonable, given the perceptions of what RPA's purpose (or lack of) at the Forest level is. And even those who were aware of some value of interfacing the processes were faced with time deadlines that did not allow them to do so to the extent they would have liked.

Since the RPA Program and forest planning are often not seen as part of the same process, many at the Forest level view the requirements to address the RPA targets in alternatives as some sort of artificial, arbitrary constraints to the forest planning process. One reason that RPA often does not have much credibility at the Forest level is that it generally is difficult to see much of a relationship between what was "sent up" as RPA input and what comes back down, as pointed out in the discussion of the FSMM.

Forest Service Barriers

The previous sections focused on barriers which are more or less inherent to the political processes and are due in large part to the fact that planning and budgeting are based on different concepts. In addition to these barriers, however, there are certain characteristics and structural aspects of the Forest Service, some of which have been alluded to in the above discussion, that contribute to the barriers to integration of land management planning and budgeting. Again, while this pervades the entire organization, the focus here is primarily on how it relates to forest-level linkages.

One barrier to linkage is that budget data are often not very useful in putting together forest planning information. Forest plans represent "what ought to be;" that is, forest planning analysis should include what it would cost to complete the activities for which the plan calls. Budget data, on the other hand, often do not accurately reflect actual costs of doing what should be done.

Forest economists spend considerable time working with resource specialists to determine the actual costs of the activities in the management prescriptions for the forest plan. The costs for many activities have not been accurately estimated in the past; the unit costs available from the budget information are calculated by dividing the amount budgeted by the units of activities completed, according to

the annual accomplishment reports. These may not necessarily represent what it would actually cost to do certain activities.

There are numerous reasons for this. One is the "can do" attitude which has long characterized the Forest Service (Cox, 1985). Even when budgets have been slashed, somehow the people in the Forest Service have managed to complete the work that needs to get done in order to accomplish goals. This is done by working extra hours with no extra compensation, completing jobs to lower standards than what had originally been specified, and in some circumstances, shifting work to areas where funding is available. While it is perhaps admirable to attempt to complete the work, it makes determination of actual costs from the accounting reports difficult.

Another factor is that there are very often quality differences which are not easily captured. Thus, while a forest plan management prescription may require a certain quality level for an activity, historical budget data do not allow making such distinctions.

Some resource areas have been able to accumulate better information than others. Work activities which are contracted and thus traded in the market provide a more accurate estimate than those that are not. In working with the specialists during forest planning, many of them were estimating costs for individual activities for the first

time. They had worked with the budget system long enough to estimate what should (or more accurately, what probably would) be budgeted for the entire resource area, such as Wildlife, or Watershed Management, but they were not very comfortable attempting to break costs down to individual activities, as required for forest planning.

This is partially attributable to the different orientation of land management planning from what has historically been the approach for budgeting. While budgeting within the agency has been making the change from a functional approach to a multi-functional, integrated approach, this change is going to take time to really sink in. It has been noted both in the literature and by employees of the agency that organizations such as the Forest Service are slow to change (Cox, 1985). From the agency's historical perspective, the new demands of RPA/NFMA planning and budgeting represent an abrupt change in direction (Cortner and Schweitzer, 1983).

Forest plans are developed from a multi-resource standpoint. The building blocks for the plan are management strategies, which outline the activities that can be undertaken on a particular type of land on the forest (based on location, management emphasis, geographical, ecological, political, etc. considerations). These strategies contain multi-function activities, and in order to successfully implement them, these activities must be coordinated among the various functions, not only in the planning stage, but also when it comes time to budget for their implementation.

One of the barriers adding to this is that there are structural characteristics of the Forest Service that inhibit integration of the processes. The Forest Service is organized along functional lines, and in most cases, budgeting and land management planning are in different functional groups. While the organizational structure varies somewhat from forest to forest, it is typical for budgeting to be under the administrative staff officer and land management planning to be under the lands and planning staff officer. There is generally no one who is specifically in charge of the coordination between LMP and budgeting, and often there is little attempt at the staff level for this coordination.

The NFMA regulations state that forest plans will be developed by interdisciplinary teams of resource specialists and planners. In many instances, a budget representative is not one of the principle ID team members. Generally there are several tiers of team members: those who devote up to 100% their time to LMP, those who devote from 40 to 60%, and those who are only occasionally involved. Most often, the budget representative fits into the latter category.

The functional structure also inhibits linkages between the various resource areas (i.e., timber, wildlife, recreation, etc.) While there is an interdisciplinary approach established for planning, there really is no comparable mechanism for budgeting. As discussed earlier, budgeting has been changing to be multi-functional. However, budget

information is still largely developed within each function, with no explicitly established methods for actually making the multi-function linkages.

In my experience working on a forest, I found that there was a lack of understanding by anyone about how the entire planning/budgeting process is supposed to work, as defined and outlined by RPA/NFMA and the implementing regulations. Those in budgeting understood how the budget was to be prepared, in terms of the technical data requirements from resource areas, and the forms to be filled out. Those involved in land management planning understood the concepts of the land management planning process, in terms of the planning steps to be completed (identification of issues, concerns, and opportunities, development of evaluation criteria, etc.) but no one really knew how it was to all fit together, or even if it was to all fit together.

SUMMARY AND RECOMMENDATIONS

In summary, two general categories of barriers to integration have been presented. Inherent differences between the planning and budgeting processes result in the following barriers:

1. The delusion factor of the Forest Service Management Model.
2. Ambiguity about whether the proposed integrating process is driven by considerations of political and legal constraints or whether it is based on unconstrained future productive potential.
3. Ambiguity about whether it is a top-down or bottom-up process.
4. Ambiguity about whether the process is centralized or decentralized.

The other category includes institutional barriers to integration. These are:

5. Budget data are often not very useful in forest planning because they generally do not reflect the actual costs of doing what should be done.
6. The functional structure of the organization.
7. Limited participation by budget personnel in the forest planning process.

8. Lack of understanding of how the entire planning/budgeting process is supposed to work.

A number of the barriers discussed here would indicate that it is somewhat futile to try to establish an overall, integrated planning and budgeting process. The concept of an integrated process relies on a budgeting process that is not merely incremental or heavily influenced by the political process. As has been pointed out, however, once the program proposals are in the hands of the Congress, all the rules of the game change. The political, economic, and social concerns driving the members of the Congress will come into play when budgets are allocated. The agency can make its case for its proposals, but Congress will dispose of them as it sees fit (Gremillion, McKenney, and Pyburn, 1980).

However, the fact that barriers exist which prohibit the ideal linkages depicted in the Forest Service Management Model does not mean that there are not advantageous linkages to be made. Even though the linkages may not extend beyond the agency, the concepts underlying the linkages between land management planning and budgeting are valid. In presenting arguments for the value of program planning and budgeting systems (PPBS) in the early 1970's, Doh quotes Bertram Gross: "Without such union [linkage between planning, program analysis and budgeting] planners can easily lose touch with the constraints imposed by scarce resources, while budgeteers can easily be divorced from the content of

plans and programs" (Doh, 1971). This is still relevant today. Even if the flow does not extend beyond the agency, it is crucial to make the linkages within the agency. If, in fact, budgeting becomes largely incremental and political outside the agency, then it is more a matter of reacting to what is appropriated rather than influencing the appropriation. Perhaps if the linkage is viewed primarily as a vehicle for requesting funds, it cannot be successful. However, linkages between planning and budgeting can help ensure that whatever resources are provided (i.e. in terms of budget allocations) are used efficiently. It is with this in mind that the following recommendations are made.

These recommendations speak primarily to what can and should be done during this round of forest planning to make linkages. They do not consider any major changes in the regulations and guidelines directing the planning process.

One recommendation is to include estimates of likely implementation rates and schedules in the forest plan. These estimates would be based on potential funding levels, thus addressing the dependency of plan implementation on budget allocations.

The Preferred Alternative, as presented in the forest plan, has the potential to require a budget level which differs significantly from historical budget levels on the forest, for reasons discussed throughout this paper. Forest planning has proceeded largely on the assumption that, with

the exception of the "Current Direction Alternative," the alternatives under consideration are not to be constrained by budget considerations. More than likely, the funds needed to implement the plan will exceed the historical budget appropriations. For example, minimum management requirements which increase costs have been introduced in forest planning. There is great potential that the plan can never be implemented if steps aren't taken now to make the link between what is proposed in the plan and what can be accomplished with the amount budgeted to the forest.

This requires estimates of broad implementation rates and schedules for the Preferred Alternative, based on various budget levels that can be expected. The plan should include an estimate of the implementation schedule over the next decade, based on the assumption that full funding of the plan is available. Then it should display estimates of the implementation schedules that could be achieved at various funding levels different than that specified in the forest plan. These are not detailed implementation rates and schedules; they will be determined in the implementation plan later. Rather, these should be estimates of broad program levels. For example, what are the implications of a twenty percent funding reduction on the amount of timber that can be offered? How are recreation developments affected? These kinds of estimates require an understanding of the relationships between the various resources and allocations and the multi-functional aspects of many activities.

This is not only essential for those on the forest who are implementing the plan; it is also necessary to maintain credibility with the public. If large potential discrepancies between what is planned and what can actually be accomplished are not identified, the frustration and distrust that the public already feels toward the planning process will be enhanced.

Another area of concern is the implementation and monitoring of the forest plans. Establishment of implementation and monitoring processes is essential to the success of the forest plans. This must begin during the forest planning process, not after the plan is completed and on the shelf.

The forest plan provides integrated, long-range management direction. It establishes locations on the forest where various activities will occur and/or services will be provided. Implementation planning will identify projects and support activities needed to accomplish management activities scheduled by the plan. All planning activities occurring after approval of the forest plan will be considered implementation planning, performed in compliance with forest plan direction.

Area implementation plans will be developed to coordinate transportation planning with geographic constraints and accommodate other spatial requirements. Area plans will permit a more accurate appraisal of the cumulative effects.

Lists of specific projects will then be prepared, scheduled, and budgeted according to priorities established in the forest plan (Gifford Pinchot National Forest, 1984).

The monitoring process tracks how well the implementation of the plan is meeting the requirements and goals established in the plan. It is supposed to provide for a quantified estimate of performance comparing outputs and services with those projected by the forest plan, documentation of the measured prescriptions and effects, such as significant changes in land productivity, and documentation of the costs associated with carrying out the planned management strategies as compared with costs estimated in the forest plan (CFR 47, 1982).

For the most part, this kind of information is already being collected on forests. However, it is collected and maintained by the various functional areas and is not pulled together in any one system or format. This information needs to be coordinated so that it is useful in monitoring the implementation of the plan.

The second recommendation is to have those who have been most closely associated with planning be the ones to head up the implementation and monitoring processes on the forest. It would be a natural progression, as planners, economists, and operations research analysts have skills and experience in planning. If they are involved in the coordination of plan implementation and monitoring, they also will have the

opportunity to become more familiar with program budgeting. This will not only serve the needs now by bringing a tie between LMP and budgeting. It will also improve the likelihood of better linkage in future planning because there will be people with experience in both the planning and budgeting aspects of National Forest management.

GLOSSARY

Activity - A measure, course of action, or treatment that is undertaken to directly or indirectly produce, enhance, or maintain forest and rangeland outputs or achieve administrative or environmental quality objectives.

FSH 1309.11, The Management Information Handbook (MIH) sets forth Forest Service activity definitions, codes, and units of measure.

Alternative - One of several policies, plans, or projects proposed for decision-making.

Forest Program - The summary or aggregation of project or activity information that makes up an integrated (multi-functional) course of action for a given level of funding on a National forest that is consistent with the Forest plan.

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

Management Practice - A specific activity, measure, course of action, or treatment.

Management Prescription - Management practices and intensity selected and scheduled for application on a specific area to attain multiple use and other goals and objectives.

Objective - A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Output - A good, service, or on-site use that is produced from forest and rangeland resources. See FSH 1309.11 for output codes and units of measure.

Program - Sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishments.

Program Budget - A plan that allocates annual funds, work force ceilings and targets among agency management units.

Program Budget Level - A single, comprehensive integrated program responsive to the Chief's direction that specifies a level of production attainable from a given investment of dollars and other resources. Each budget level represents a complete, full, and independent package within the criteria and constraints identified.

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APPENDIX A

Program Development and Budgeting Process

(Source: USDA Forest Service, PD&B--Washington Office, 1985)

1. Develop Program and Budget Instructions

The Program Development and Budgeting Process begins with the preparation of instructions for formulating budget proposals. The direction provides guidance for developing alternatives which respond to the RPA and LMP targets and objectives and allows for changes which have occurred since the RPA Program was developed. Each Region, Station, and Area is responsible for assuring that the annual direction is followed in formulating alternatives and analyzing their effects on Regional and Forest Plans. For example, instructions might require field units to develop proposals which show priorities for responding to RPA/LMP at:

- 1 - current budget level
- 2 - budget level of -20 percent of the current budget
- 3 - a budget level equal to specified RPA/LMP targets and objectives
- 4 - a budget level which accelerates specified RPA/LMP targets and objectives

2. Develop and Present Alternative Program Budget Proposals

Regions, Stations, and Areas develop program alternatives based on RPA/LMP information from local units that respond to national, Regional, and local direction. These alternatives are passed to the Washington Office where they are used to

develop national program alternatives. Chief and Staff review the national alternatives, including their costs and benefits, which are then presented to the Department.

3. Budget Presentation and Justification - USDA

When the alternative funding levels for the budget year have been established and approved by Chief and Staff, documents for the formal submission to the Department are prepared. In addition to the technical budget documents, a presentation and justification package is developed to explain in more detail the Forest Service budget request.

4. Budget Presentation and Justification - OMB

The Department Estimate for the Forest Service is submitted to OMB with technical budget documents, special justifications, and tables for their review. The OMB "mark" is prepared and becomes the President's Budget after appeals are considered and resolved.

5. Issue Field Allocation

When the President's Budget is released, field allocations are made based on the previous field proposals which reflect priorities for implementing RPA/LMP. Fund distributions, targets, program direction, and manpower allocations are prepared and sent to the field.

6. Budget Presentation and Justification - Congress

After the President's Budget is set, work can be concluded on the Budget Appendix and Explanatory Notes. The Explanatory Notes are prepared at the request of the Congressional

Appropriations Committee. Witness statements, witness lists, and displays are also prepared for Committee Hearings.

Responses to the appropriate subcommittee requests continue until the appropriations act is signed into law.

7. Update Field Allocation

After appropriation action is finalized, the financial and work planning advice is updated and allocations are made to field units.

8. Midyear Review

Along with the second quarter target attainment report, the field submits a midyear financial report. These reports are reviewed by Chief and Staff for accountability and necessary adjustments.

9. End of Fiscal Year Reports

All units report the final attainments to be used in the Management Review process, Annual Report, and Budget Explanatory Notes. This data is also used in Senior Executive Service performance evaluations.

10. Develop and Issue Annual Report

After the close of the fiscal year, the Report of the Forest Service is prepared which describes accomplishments in terms of implementing the annual budget as approved by Congress and progress towards achieving the RPA Program targets and objectives. The Report is used by Congress and others in its oversight responsibilities and by the Forest Service in evaluating attainment of the RPA Program.