AN OVERVIEW OF GOVERNMENT'S ROLE
IN FORESTRY AND AGRICULTURE

INTRODUCTION

Anyone who has spent more than a decade or two in professional forestry -- or professional anything for that matter -- has at some point been immersed in the issue of public support for their chosen field of endeavor. This is certainly true in forestry, where our discussions have generally focused upon separate support systems for research, education and extension. These topics in turn we often disaggregate into concerns ranging from extensive holdings of public lands to single urban trees, with a generous dollop of attention to the private industrial or non-industrial sectors. In seeking public support, we have commonly turned to federal agencies, but the results obtained suggest that state governments prove to be more generous givers of funds to local forestry institutions in the aggregate sense.

In forestry we are given to comparison with the agricultural sector for a variety of definitional and conceptual reasons. Agriculture and forestry have common roots in their husbandry and marketing practices, and both exemplify land uses which produce necessary commercial products as well as the amenities provided by pastoral and forested terrain. These two major components of our renewable natural resources base have further affinity in that the same committees usually handle both at the federal legislative level, and in that the venerable U.S. Department of Agriculture houses our largest public forest land management agency.

A comparison of the government's role in agriculture and forestry is clearly the subject of a text rather than a discussion paper -- at least without further qualification. Thus I hasten to suggest that today we focus upon a brief review of parity between agriculture and forestry vis-a-vis the question of government support. This will be followed by a look at some meaningful, but less quantifiable, aspects of policy development

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as it is played out in the arena most familiar to academics. My third and final section will consider current and future politics and policies of planning for government support. In general the discussion will center upon federal support, note state support where appropriate, and disregard support available below the state government level. Although I will touch upon support within federal agricultural and forestry agencies, I will emphasize opportunities for direct and pass-through funding available to the state and private educational sectors.

FEDERAL SUPPORT SYSTEMS: THE UNIVERSITY SCENE

The history of U.S. research and development support began with a long period of major emphasis upon agriculture, and agriculture research made up the greater portion of federal research expenditures. Only in the mid-1960's did the relative position of agriculture begin to tumble down as the big science of the post-Sputnik era gained ground. The main-stay in agricultural research funding (related to universities) throughout our history has been the Hatch Act (1887), which was signed about 25 years after President Lincoln's Morrill Act (1862) established the land grant colleges. The Smith-Lever Act of 1914, designed to aid in the dissemination and application of agricultural research, initiated the primary support system for extension work. These programs have, in general, been highly successful in bringing U.S. agriculture to world-renowned prominence, and to provision of a food supply system unequaled in the history of man.

A host of other legislation followed these two acts; a sampler listing might include commodity support programs dating back to the Tingle A Act of 1933; the Agricultural Stabilization and Conservation Service, related to section 8(b) of the Soil Conservation and Domestic Allotment Act of 1935 -- as amended; the Commodity Credit Corporation, Farmers' Home Administration,
Federal Crop Insurance Corporation, Farm Credit Administration, all brought into being in the 1930's; agricultural marketing acts of 1937 and continuing; agricultural acts of 1948 and continuing, and a plethora of specific enactments developed through the years.

Much of the agricultural legislation included forestry inferentially, if not directly. A list of legislation specifically for conservation and forestry-related matters might include the Forest Management Act of 1897 and later transfer Act of 1905, the Weeks Act of 1911, Clark McNary Act of 1924, McSweeney-McNary Act of 1928, Knutson Vandenberg Act of 1930, Norris Doxey Act of 1937, Cooperative Forest Management Act of 1950, the 1955 transfer of Clark McNary Section 5 funds to be used under the Smith-Lever Act, the Multiple-use Act of 1960, the McIntire-Stennis Act (Cooperative Forestry Research Act) of 1962, the Wilderness Act of 1964, the Forest and Rangeland Renewable Resources Planning Act of 1974, the National Forest Management Act of 1976, and the Renewable Resources Extension Act of 1978.

The purpose of the foregoing "sample of legislation" is not to frame discussion of the individual or collective effects, but to segregate out that which has had major impact in support of forestry research and education in the extra-agency sense. Taken in this reference, the issue is not difficult to define. The Hatch Act and the Smith-Lever Acts dominated the agricultural picture; they have been the main-stay of the State Agricultural Experiment Station (SAES), the Cooperative Extension Programs (CE), and collectively, of the agricultural colleges. Since many land-grant university forestry programs developed within administrative control of, or closely affiliated with, the agricultural colleges, it logical to ask what proportion of funding in these areas has crossed over into forestry.

The result was a familiar one: little funding has flowed from the SAES or CE to the forestry sector. At the present time,
around 2 million dollars of Hatch and Regional Research Funds annually flow into national forestry research. This situation has prevailed for at least 15 years on about the same level, using a consumer price index 1967 = 1.00. In terms of percent allocation for 1973, as an example, this would mean less than one percent of the total funds available. The actual commitment in the aggregate or state-level is difficult to quantify, and may range as high as 6 or 7 percent in some states. Definition of accounting or administrative and program assignments often cause difficulty in defining funding sources. In this same year, the total forestry research budget for universities came to about 15 million dollars of non-federal support; the federal support added about 6 million dollars for a total of 21 million dollars. The Forest Service budget that year was about 57 million dollars for forestry versus about 685 million dollars for agriculture (counting both SAES and USDA research). The allocation proportions of these figures remain generally unchanged today.

The magnitude of support out of agriculture funds is about the same for extension work. Less than one percent of federal CE funds currently goes to forestry programs. While a few states provide some exception to this rule, the aggregate result is not encouraging.

So the question becomes, "Has forestry in its collective policy and administrative body failed to 'do things right' -- and how, in total, has agriculture fared?". To understand why the situation has remained as it is requires one to look first at the agricultural structure. In the early days of the AES system, the Dabney Committee expressed a meaningful concept at the first annual convention of the Association of Agricultural Colleges and Experiment Stations in 1887. This was the concept of separation. In enunciating the standards to be observed in the expenditure of federal funds, the Dabney Committee said:

All appropriations...should be applied in good faith to agricultural research and experiment, and the dissemination of the results thereof among the people and any diversion of funds to the
general uses of the college would be a
direct violation of the plain spirit and
intent of the law. . . . The experiment
stations. . . . should be so far separate and
distinct from the colleges that it should
be possible at any moment to show. . . . that
all funds. . . . have been expended solely for
the purposes of agricultural experimentation
according to the intent of the law.

So well have these safeguards been followed that considerable
criticism has developed around the concept of separation. Writing
in Daedalus (1974), Andre and Jean Mayer titled their article:
Agriculture, the Island Empire. They suggested that "intellectually
and institutionally, agriculture has been and remains an island --
a vast wealthy, powerful island. . . . but an island nevertheless.
One with its own public, scientific, trade and social organizations,
its own technical and popular magazines, and most importantly,
its own private political system. The political strength of
this empire is formidable whether it be in relation to electing
presidents or maintaining research budgets."

Has agriculture fared well? Perhaps that is a matter of
opinion. In the main, I would suggest that an independent
observer speaking with global reference would have to say yes.
The agricultural surplus programs of the 1960's provided testimony
to the system, and one supposes, to the efficacy of research and
extension. There was, in fact, great concern at the turn of this
decade that support for agriculture research was in trouble at the
Congressional level. With inflation and generally decreasing federal
support, states were over-matching at a ratio of over 2 state dollars
for each federal dollar. This caused the SAES and ES directors to
fear that a funding crisis was on its way.

And so it seemed, until the Russian grain purchase of the
early 1970's, followed by two National Academy of Science reports
on world food and agricultural needs, and a world food conference in Rome created new concern about food shortages. We were convinced that the world needed U.S. food, and that the U.S. badly needed the approximately 20 billion dollars in positive trade balance that agriculture provided. Thus, there seemed to be renewed evidence of need and support for agriculture research.

But just as this new breeze was about to fill the sails of U.S.S. Agriculture, a shift occurred in the political wind. Congress began to wonder if block funding to the "Island Empire" was the best way to accord increased needs. Thus competitive grants became the trend in the mid-1970's. This trend requires the machinery of review and provides in the proponents' view, opportunity for setting subject priorities and increasing the efficacy of research. To accommodate shifts in emphasis and the call for better research coordination, a new structure, the Science and Education Agency (SEA) was created within the USDA. In its first full year of operation, SEA along with the SAES and SES, provided a focal point for USDA national planning and funding of research and extension. Whether SEA will have any great effect on forestry research, or change the conduct of agriculture research for that matter, remains to be seen.

Returning to the original question, "Has forestry been doing something wrong?", the conditional answer is yes. Foresters have simply been queuing up at the wrong window. Given their own clientele and their over-all missions, agriculture policy makers should not be faulted: they have been too pre-occupied with their own problems to provide a great deal of attention to forestry. And forestry lacks, and has lacked the cultural heritage, broad public support and political clout of agriculture. Recognizing this, the body politic in forestry helped to promote its own version of the Hatch Act in 1962 -- the McIntire-Stennis (M-S) Act. The original funding of one million dollars has achieved an impressive percentage growth in 17 years to 10 million dollars. However, the gain is not so impressive when we compare
it with the national forestry research needs or with our companions in agriculture. Why?

Some of the reasons have already been stated -- the lack of strong public or political support, and the queuing phenomenon. The M-S program planning originates in the Association of State Colleges, Universities Forestry Research Organization (ASCUFRO), and is then pulled into the vortex of activity within the Division of Agriculture, Experiment Station Section, Experiment Station Committee on Policy. Recommendations pass through this group, are given final authority from the Executive Committee of the National Association of State Universities and Land Grant Colleges (NASULGC), and enter the Congressional House Committee on Appropriations, Subcommittee on Agriculture and Related Agencies. At this point, testimony takes place, and appropriations take the tortuous path toward ratification. Somewhere along the way from origination to approval, the M-S appropriations have become lost, at least in relative terms. If we are not again in the wrong line, we are at best, arriving late, when there seems to be little left to dispense.

It would, however, be unfair to suggest that the M-S Act has been unsuccessful. It has been a most significant influence on forestry research at educational institutions, accounting for one quarter of the national funding for non-federal agency forestry and forest products research.

And what about the extension programs? We've already noted that forestry extension receives about one percent of the national ES budget. Clearly forestry has not received a reasonable share in the ES system. But should it? Or are we again standing in the wrong line? I prefer to believe the latter, rather than making finger-pointing accusations to bring about a funding renaissance for forestry extension vis-a-vis the Smith-Lever Act. Once again, the forestry community's response to the 1914 Agriculture Extension Act (S-L) has been to obtain -- 64 years later! -- its own version of the bill (Public Law 95-306, 95th Congress, The Renewable Resources Extension Act of 1978). Sixty-four
years late, foresters are now awaiting the funding decision on this bill which contains authorization to provide up to 15 million dollar per annum for a ten year period ending in 1988.

While government support for forestry research has not been strong outside of the U.S. Forest Service (and the Forest Service might say the same of their own needs), the over-all picture is perhaps, not as dismal as the previous discussion has painted it. In 1977 Sullivan (in a Review of Forest and Rangeland Research) showed a total of about 91 million dollars for federal forestry research, and about 45 million dollars for forestry schools and other non-federal agencies. These figures were up from about 10 million and 8 million dollars respectively in 1953. Even after adjustment for inflation, there is evidence of gain -- how significant that gain is depends somewhat upon one's viewpoint, and the ability to quantify the national needs for forestry research. A look at the current document, "National Program of Research for Forests and Associated Rangelands" would lead one to believe that there remains a real need for major increases in funding. This justification has been appropriately distributed to professional and political bookshelves. Whether it will be implemented to any significant degree depends upon the collective policy actions by the forestry community in the future.

FEDERAL SUPPORT SYSTEMS: THE STATE FORESTRY SCENE

Forestry in most states began with a fire control emphasis to which management and pest control programs were added. At the present time, about 14 percent of the fire control funds are federal, and about 25 percent of the management funds. These aggregate figures fluctuate radically, rising over 50 percent for federal funding of fire control and management in some states. Justification for state support goes back primarily to the
Clark-McNary Act and is dispensed today based on inter-state watershed protection, tourism, and environmental aspects as well as the collective national need for forest products. Over the years, special assistance programs have developed in cooperation between the State and Private (SP) arm of the U.S. Forest Service, the USDA Agricultural Stabilization and Conservation Service (ASCS) and the individual states. A noteworthy recent example of specific legislation is the Forestry Incentives Program (FIP) authorized by Congress in 1973. The FIP Program received about 15 million dollars in appropriations in 1976, while the national ASCS budget that year was about 200 million, and the agricultural conservation program received about 175 million. Again the small relative size of forestry-related versus agricultural appropriations is apparent. The reasons for this are similar to those previously discussed: lack of strong public and political support.

The current situation in reference to federal support of state forestry is revealed in the Clark-McNary support program. Following the budget line from 1978 to that projected for 1980, the figures are:

\[(1978) \quad \$46 \text{ million;}
\]
\[(1979 \text{ projected}) \quad \$49 \text{ million;}
\]
\[(1980) \quad \$13 \text{ million.}
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The projected radical drop in aid reflects a direct effort by OMB and the executive branch of federal government to trim the "controllable" part of the budget. Their argument is one that has been around for a while: the "seed money" from CM funds has done the job, it's time for the states to assume fuller responsibility.

The reaction by state foresters and the forestry public has been predictable. They argue that the cut is unjustified, too sudden, and leaves the federal bureaucracy support system intact while excising the state action programs. Whether these
cuts will be restored partially or totally remains to be seen, but the impact is potentially serious for many states. The budget reductions would cut deeply into fire control, urban forestry, and management functions. A related reduction in revenue sharing will further impact many of the rural fire control systems that interact with state forestry organizations. Add to these facts the Proposition 13 mentality, the increasing number of states (ca. 26) that have signed the "balanced budget" resolution, and a general wave of conservatism coincident with a potential economic slow-down, and one sees a difficult time ahead for forestry programs at the state level.

SPECIAL NEEDS SUPPORT

The legislative history of government support for agriculture has many examples of specific appropriations within existing legislation or of special enabling legislation for certain crops or issues. By contrast, forestry has been much less effective in utilizing this strategy. In federal subsidy programs, forestry has gained an advantage over agriculture only in taxation. This subsidy, of primary interest to the timber industry consists of: (1) capital gains treatment of income from increased valuation of standing timber; (2) allowing a mismatching of income and expense and (3) the conversion of ordinary income into capital gains. ¹ In addition, some states have preferential tax laws to assist reclamation and reforestation programs.

However, specific research and promotion programs for farm products far outstrip the accomplishments in forestry of a similar nature. Forestry has not been as successful in innovation of specific programs such as those established under various marketing acts for agriculture. As an example, the Cotton Research and Promotion Act of 1966 provided for the collection of one dollar per bale assessments for upland cotton research

and promotion activities. This system had provision for federal monitoring by USDA Agricultural Marketing Service. In the 1972-73 crop year about 13 million dollars were collected, or an amount about equal to the current 1978 M-S, Hatch and Regional Research allocations for all of forestry and forest products research.

Other examples may be found in about 48 different federal marketing orders, of which 35 have research authority. A unique example is found in the wheat export certificate pool (Wheat Research and Promotion Act of 1970) wherein proceeds from the wheat export certificate pool of the previous year not claimed by eligible farmers is made available for expenditure on research and promotion. Wheat exporters are required to buy export certificates when world prices exceed U.S. prices and in turn are paid subsidies when world prices are lower. By July of 1974 about 4.2 million dollars had accumulated.

A final example of special needs may be found in the crop insurance program. Senator Talmadge introduced a bill in the 95th Congress 2nd session to provide a new self-help program for insuring crops against loss due to natural or uncontrollable conditions. In mark-up the bill was amended to include perennial crops such as forest trees. The bill is still in process of committee discussion, but could surface as a new form of assistance to both industrial and non-industrial timberland owners.

**FINAL COMMENTS ON GOVERNMENT'S ROLE**

The foregoing review does not lead one to make positive projections about future funding for forestry research, teaching or extension programs. Current trends at federal and state government levels call for parsimonious approaches to the taxpayer's purse. The Office of Management and Budget is drawing close to a goal of significant reduction in Clark McNary funds for state forestry programs. It seems that agriculture has its
own problem set to deal with, and that in any event, forestry is unlikely to gain a greater share of funding from that source.

Yet if we believe our collective rhetoric concerning plans for national research programs or the almost redundant testimony for M-S funds, there is an unmet need for significant increases in forestry research. In brief, we as a nation, are under-invested in the research and development necessary to bring about full productivity of our greatest renewable natural resource. Even dreams of burning wood to make up a portion of our energy needs fails to swing significant support to a system already justified under the many wonders of multiple-use programming.

It would seem, historically, that all times are critical. Today is no different, and it is trite but true to say that we must strive to be more convincing of our goals. Writing in the Duke Symposium volume (ed.: Convery, 1977) James Giltmier, a staff member of the Senate Agriculture Committee, suggests that what Congress does is that which is possible. To make it possible for Congress to do more for forestry would seem to be our goal. This is a goal that does not necessarily cut across the conservative trends or balanced budget pathways. It does however, require that we define our needs in terms of national priorities. It also suggests that despite the frustrations many in forestry feel about the lack of enthusiasm for research valuation, we must increase our efforts in this area. Coupling research funding to effective research objectives and output is not just an exercise for classroom simulation; it is required by the system we approach for funding.

If our goal is to make possible additional Congressional assistance, we may conclude by asking, "How?". Assuming that the internal machinery of forest policy has been working effectively, it would seem timely to ask for an alliance. The one with agriculture has been congenial, but not terribly productive.
I do not suggest cutting this tie, but I would add to it. Momentum is building nationally for increased support in range, fish, and wildlife. The issue of reorganization of the natural resources is breaking upon the scene, and whatever its outcome at the federal level, it is stimulating a broader look at these sectors. Perhaps it is timely to think of a new and stronger coalition support for a combined omnibus natural resources act. The National Science Foundation support for environmental and natural resource programs exceeded a billion dollars this year. Is this an argument for or against additional natural resources funding? I would suggest that we need to broaden our view of what is on-going as well as our ideas about who our supporters might be, and make our presentations much more comprehensive than we have in the past.

I am sure that SOFEW has a unique capability to contribute to the analysis of these policy issues on a regional basis. The lesson of agriculture's mistakes teaches that while it is highly important to obtain aggregate national increases in funding, it is equally important to disaggregate and quantify on a regional level, the goals and priorities identification. I am sure that this meeting and other work by SOFEW members will help to assure a continuing research base for the South's Forest Economy in Transition.