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# REPORT TO THE CONGRESS 094853

## More Intensive Reforestation And Timber Stand Improvement Programs Could Help Meet Timber Demand

B-125053

Forest Service  
Department of Agriculture

*BY THE COMPTROLLER GENERAL  
OF THE UNITED STATES*

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FEB. 14, 1974



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B-125053

To the President of the Senate and the  
Speaker of the House of Representatives

This is our report on how more intensive reforestation and timber stand improvement programs by the Forest Service, Department of Agriculture, could help meet timber demand.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Agriculture.

*James B. Peets*

Comptroller General  
of the United States

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## ABBREVIATIONS

GAO      General Accounting Office  
KV        Knutson-Vandenburg  
OIG      Office of Inspector General  
TSI      Timber stand improvement  
OMB      Office of Management and Budget

COMPTROLLER GENERAL'S  
REPORT TO THE CONGRESS

MORE INTENSIVE REFORESTATION AND  
TIMBER STAND IMPROVEMENT PROGRAMS  
COULD HELP MEET TIMBER DEMAND  
B-125053  
Forest Service  
Department of Agriculture

D I G E S T

WHY THE REVIEW WAS MADE

GAO wanted to find out whether the Forest Service's reforestation and timber stand improvement programs provided for the best possible timber growth on national forest land.

Harvesting, fire, insects, disease, and other causes have deforested much of the Nation's timberlands. Effective programs for reforesting and carrying out timber stand improvements, such as thinning trees on overstocked land, are essential to achieving sustained timber yield from national forests.

FINDINGS AND CONCLUSIONS

The growing demand for timber, expected shortages, and rising prices for such products as lumber and plywood are causing much concern. (See p. 6.)

Obtaining the best timber growth on national forest land will require accelerated reforestation and timber stand improvement and better land inventory data and fund allocation procedures to insure that available funds are used on the highest priority work.

A report issued in April 1973 by the President's Advisory Panel on Timber and the Environment said the intensity of forestry practices in the 1970s will greatly affect the amount

of timber harvested in the 1980s and 1990s. The Panel concluded that a more adequate and timely method of financing management programs for Federal forest land is essential. (See p. 10.)

The national forest timber yield in fiscal year 1973 was 12.4 billion board feet. The Forest Service estimates that, by intensifying its forest management practices, it can increase the yield to about 20 billion board feet annually by the year 2000. A major portion of this increase will result from reforestation and timber stand improvement work on the estimated 18-million-acre backlog of national forest land needing such work.

The Forest Service acknowledges its land inventory data and fund allocation procedures have not been adequate to insure that available funds are used where reforestation and timber stand improvement would result in the best possible timber growth and other multiple-use benefits, such as improved recreational, watershed, and wildlife areas. (See p. 12.)

Work needed

The Forest Service finances reforestation and timber stand improvement with appropriated funds and funds authorized by the Knutson-Vandenberg

Act of 1930 to be collected for that purpose from timber purchasers. Appropriated funds may be used in both harvest areas and other deforested areas. Knutson-Vandenberg funds may be used only in areas where timber has been harvested. (See p. 13.)

The Forest Service's application of legal and administrative limitations has precluded it from setting aside enough Knutson-Vandenberg funds to finance reforestation and timber stand improvement needed in harvest areas, and it has used appropriated funds to offset such deficits. As a result, the large backlog of reforestation and timber stand improvement work has not been reduced. (See p. 13.)

For fiscal years 1968 through 1973, the President's budget requests for reforestation and timber stand improvement totaled about \$51.8 million less than the Forest Service's estimated need.

Congressional appropriations for those years included about \$7.4 million more than requested, part of which the Office of Management and Budget impounded. (See p. 16.)

Backlogs have persisted for many years even though:

--The Congress enacted legislation in both 1949 and 1972 giving special authority for appropriating funds to reforest large acreages of denuded national forest land.

--Timber sold from national forests over the years has returned substantial funds to the Treasury. For fiscal years 1968 through 1972, the return totaled about \$838 million. (See p. 13.)

The Forest Service said about half of the reforestation and timber stand improvement backlog areas need to be studied to determine whether they should be used for timber production.

According to the Forest Service, the reforestation and timber stand improvement needed on the other areas would cost about \$724 million and could be done in 10 years. (See p. 15.)

The final budget requests for fiscal year 1974 included \$23.1 million for both reforestation and timber stand improvement. This was \$16.8 million less than the Forest Service's estimated need for that year.

The 1974 appropriations act included \$32.1 million for reforestation and timber stand improvement--\$9 million more than the final budget request. (See p. 17.)

Forest Service records show that, as of June 30, 1971, needed reforestation and timber stand improvement in harvest areas would cost an estimated \$55 million more than the amount of Knutson-Vandenberg funds available. The deficit is understated significantly because not all harvest areas were included. (See p. 18.)

Legislation passed in 1972 required that the Secretary of Agriculture report to the Congress annually on the scope of the total national forest reforestation needs, plans, and progress. The legislation does not provide for the timber stand improvement backlog. (See p. 17.)

Plans to improve land data  
and fund allocation procedures

In 1971 officials of the Forest

Service and the Office of the Inspector General in the Department of Agriculture reported long standing inadequacies in available data on location, size, and condition of areas needing reforestation and timber stand improvement.

These officials also reported a need to establish a system for using such data to see that available funds were directed to areas where work would result in optimum timber growth or other benefits. (See p. 25.)

In June 1972, the Forest Service adopted a plan to improve its land inventory data and fund allocation procedures. The plan, however, did not include target dates for implementing improvements at the field locations. GAO's inquiry in June 1973 indicated that although some progress had been made, resolution of the problem would be gradual over several years. (See p. 25.)

Because of the legislative objective of managing the forests for sustained yield to meet the Nation's growing demand for timber and because of the problems in meeting that demand, all reasonable efforts should be made to optimize timber growth on national forest land. Carrying out the congressional intent of accelerating reforestation will require increased funding and improved management to insure that funds are used on the highest priority work. (See pp. 28 to 30.)

#### RECOMMENDATIONS

The Secretary of Agriculture, in the subsequent reports on reforestation submitted to the Congress pursuant to a September 1972 act, should include:

--Information on the total national forest timber stand improvement needs and Forest Service plans for the progress toward fulfilling such needs.

--Information on Forest Service headquarters and field offices progress in improving land inventory data and fund allocation procedures to insure that reforestation and timber stand improvement funds are applied first to those areas where such work will result in optimum timber growth and other multiple-use benefits, such as improved recreational, watershed, or wildlife areas.

The Forest Service should require its field offices to set target dates for completing planned improvements in the land inventory data and fund allocation procedures. (See p. 31.)

#### AGENCY ACTIONS AND UNRESOLVED ISSUES

The Office of Management and Budget said the GAO report raised important questions about legal and administrative limitations on the amounts of funds that are set aside for financing reforestation and timber stand improvement. It agreed on the need for an operational system for identifying priority timber investment opportunities. (See p. 33.)

Agriculture said that, as the result of the GAO review, it already had taken action to resolve or improve most of the problems cited. It substantially agreed with GAO recommendations and cited actions it would take to implement them.

It also said that, of the three suggested alternatives for increasing funds for needed reforestation and timber stand improvement (see

following section), increases in the regular appropriations would be the most appropriate. (See pp. 34 and 35)

MATTERS FOR CONSIDERATION BY  
THE CONGRESS

In determining annual funding levels for reforestation and timber stand improvement programs, the Congress may wish to consider Forest Service progress in improving land inventory data and fund allocation procedures to insure that funds are used on a priority basis and to reduce the large backlog of land needing reforestation and timber stand improvement.

If the Congress desires to accelerate reforestation and timber stand improvement programs, it could

--increase regular appropriations from general funds of the Treasury,

--enact legislation to provide for earmarking and appropriating for reforestation and timber stand improvement work part of the net timber sale payments remaining in the National Forest Fund after all other distribution requirements have been met, or

--amend the Knutson-Vandenberg Act to provide for setting aside, on a sale-by-sale basis, enough funds to fully cover the cost of reforestation and timber stand improvement needed in timber harvest areas and could also provide for annual congressional review of the amount set aside.

In considering such legislation, the Congress should explore with the Department whether administrative limitations on the percentage of timber sale payments set aside for reforestation and timber stand improvement should continue. (See p. 32.)



## CHAPTER 1

### INTRODUCTION

The Forest Service, Department of Agriculture, is responsible for managing, developing, and protecting the resources on 187 million acres of land in 155 national forests, 19 national grasslands, and other areas. This acreage in 44 States, Puerto Rico, and the Virgin Islands includes about 92 million acres of commercial forest land containing about 34 percent of the Nation's inventory of commercial timber.

The Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528) provides that the Forest Service manage the land for sustained high-level use of forest resources--timber, range, recreation, watersheds, fish, and wildlife--to meet public demand without impairing the land's productivity. Essential to this objective are effective programs for

- reforestation of land deforested by timber harvesting, fire, insects, disease, and other causes and
- timber stand improvement (TSI) practices, such as thinning trees on overstocked land, to speed up the growth rate.

### HOW REFORESTATION AND TSI ARE ACHIEVED

Reforestation can occur naturally when seeds that fall or are blown from nearby trees germinate, or it can be done by planting seeds or seedlings. The method used depends on such factors as climate, soil type, and tree species involved. Either method often requires advance site preparation and protection from fire, disease, and insects. Reforested areas often require subsequent TSI work also.

The two principal TSI practices are thinning and release. Thinning is cutting a number of trees on overstocked land to increase the growth rate of the remaining trees, improve species composition, make better use of growing space, or otherwise increase timber production. Release is cutting or killing growth-inhibiting vegetation and branches, usually in young stands of timber.

Photographs 1 through 4, taken at different times during a 32-year period, show the reforestation of a cutover area. Photograph 5 illustrates growth increase from TSI work.

IMPORTANCE OF REFORESTATION AND TSI  
TO TIMBER SUPPLY AND OTHER FOREST USES

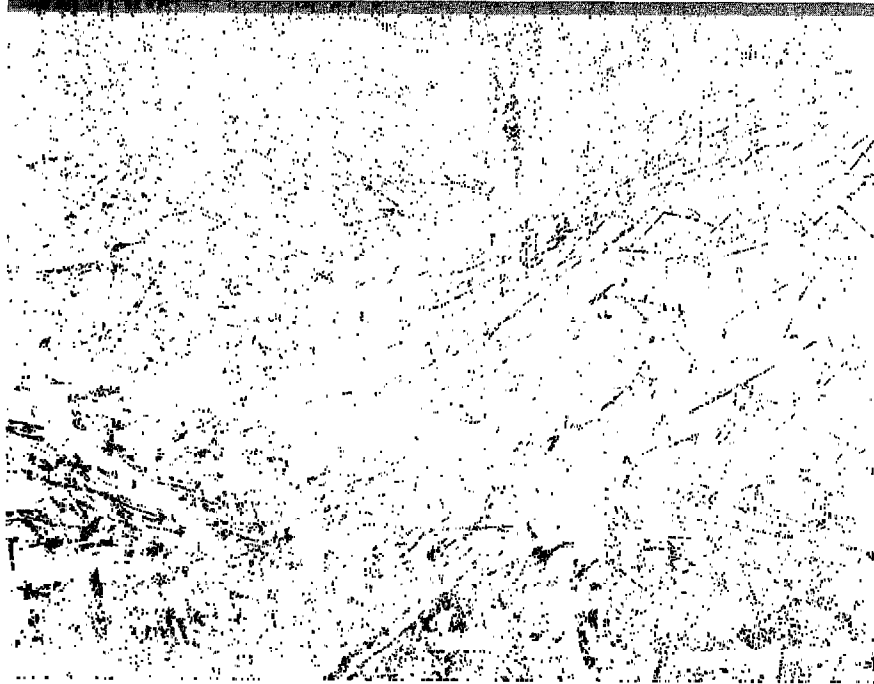
The Forest Service, to insure a sustained yield, sets the volume of national forest timber that can be cut each year. In determining the annual allowable harvest levels, the Forest Service takes into account the estimated volume of wood that will be added to the inventory through future growth. Therefore, the estimated growth increase from reforestation and TSI can be recognized in establishing the annual allowable harvest level when the work is accomplished.

The growing demand for lumber, particularly for housing, and the increasing pressure to use currently productive timberland for recreation and other benefits have added importance to prompt reforestation and TSI. Other benefits include better protection of soil and water, improved esthetics, and improved wildlife habitat.

In 1970 the President's Cabinet Committee Task Force on Softwood Lumber and Plywood reported that the growing demand for timber could produce a timber shortage by 1974, even if production from national forests were optimized through more intensive forestry practices. The report stated that the gap would presumably be closed with higher prices, accompanied by accelerated substitution and possibly a shortage in the number of housing units built.

As a result of the Task Force report, the President directed the Department of Agriculture and other Federal timber-management agencies to formulate plans to improve the level and quality of forest management to permit an increased harvest of softwood timber consistent with sustained yield, environmental quality, and multiple-use objectives.

During fiscal year 1972, an estimated 11.7 billion board feet of timber was harvested from national forests. Information obtained from four Forest Service regions in October 1972 indicated that demand to use national forests for recreation and other non-timber-production purposes may make it difficult for the Forest Service to increase the annual timber harvest from national forests.



1. This area, on Willow Creek in the St. Joe National Forest, Idaho, was cut over in the early 1930's, acquired by the Forest Service in 1938 (when this photograph was taken), and replanted in 1939 and 1942.

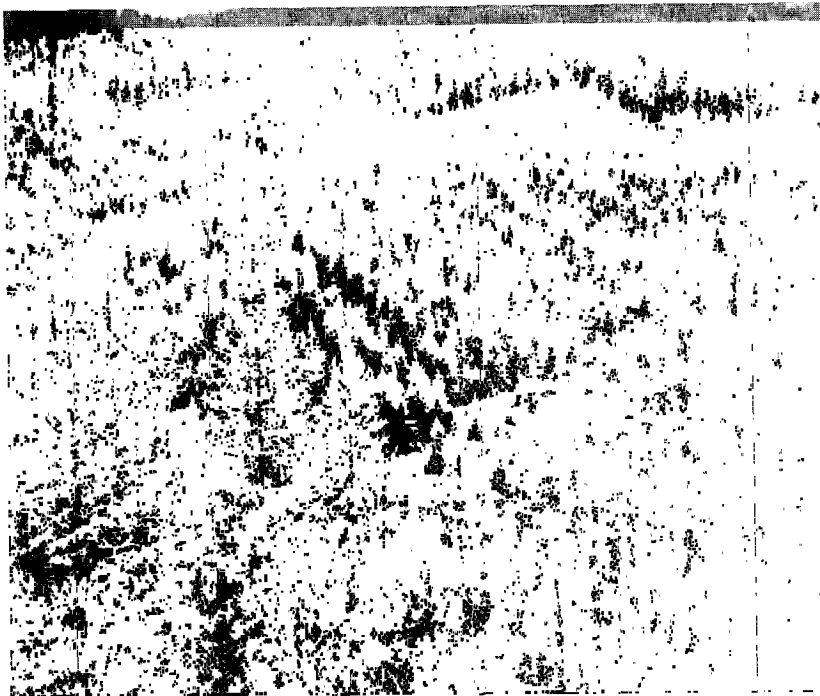


2. Willow Creek area in 1944.

(Photographs furnished by the Forest Service)

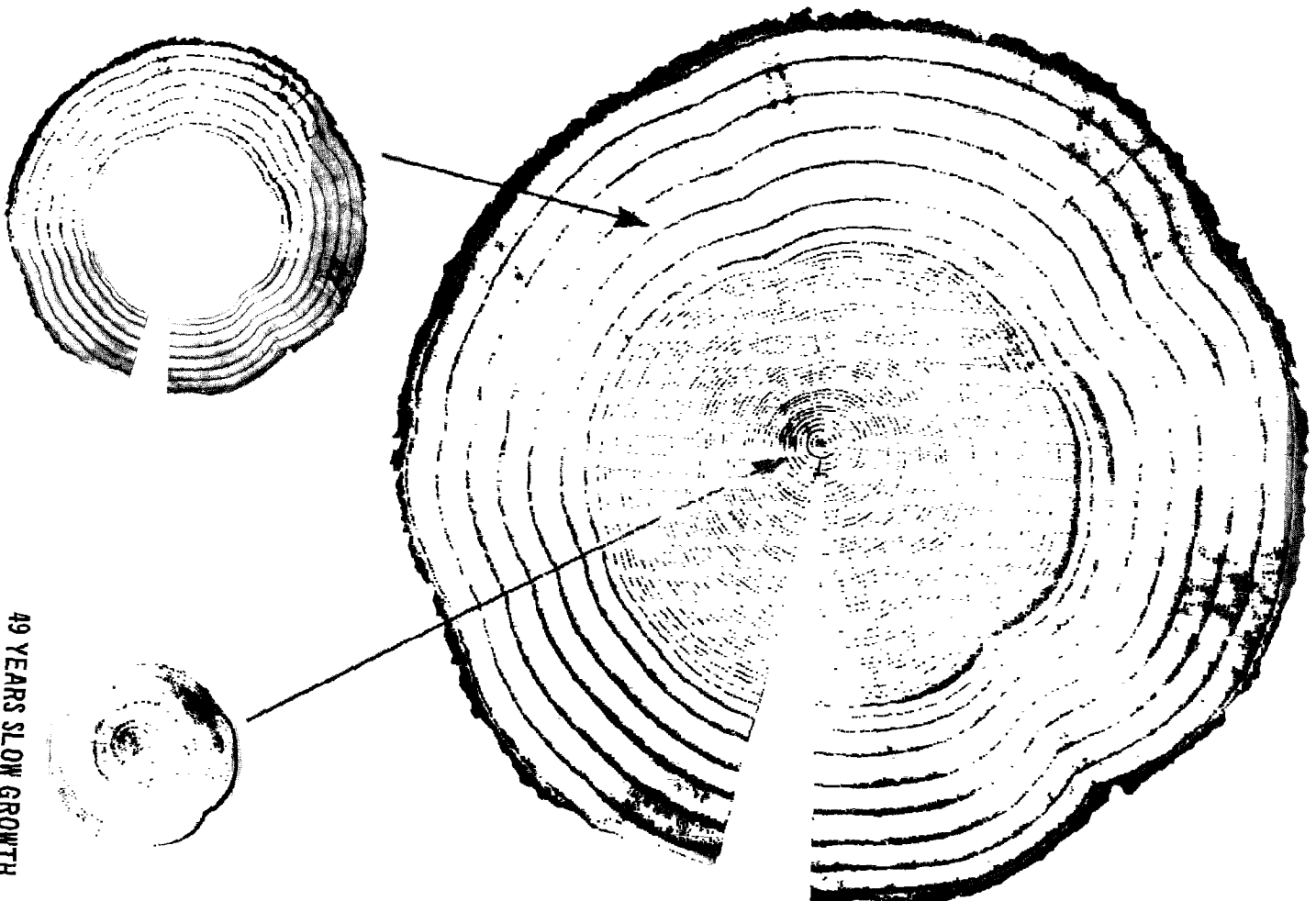


3. Willow Creek area in 1949.



4. Willow Creek area in 1969.

(Photographs furnished by the Forest Service)



**7 YEARS FAST GROWTH FOLLOWING  
TIMBER STAND IMPROVEMENT**

**49 YEARS SLOW GROWTH**

5. Cross section of a tree left in an area that was thinned. According to the Forest Service, average annual growth per acre increased by 94 percent after thinning.

(Photograph furnished by the Forest Service)

Annual allowable harvest plans (some of which were not final) for several national forests in those regions showed allowable harvest levels for fiscal year 1973 and subsequent years substantially below the levels for previous years. Forest Service records and our discussions with Forest Service field officials indicated that such reductions were largely attributable to withdrawals of land from the timber-production base for wilderness, recreation, and similar uses.

During hearings held in March 1973 on lumber and plywood prices by the Subcommittee on Housing and Urban Affairs of the Senate Committee on Banking, Housing and Urban Affairs, an official of the National Association of Home Builders stated that lumber and plywood price increases since June 1972 had added about \$1,500 to the cost of building a typical single-family home. The Association estimated that this represented an increase of more than 10 percent in the total construction costs and stated that the lumber price and supply crisis likely would recur periodically unless certain actions were taken, including actions by the Forest Service to intensify its reforestation program.

The President's Advisory Panel on Timber and the Environment in its April 1973 report stated that the intensity of forestry practices--especially reforestation, TSI, and fertilization and genetic improvements--during the 1970s will greatly affect the amount of timber that can be harvested during the 1980s and 1990s. The Panel stated also that intensive forestry practices would produce substantial additional volumes of wood after the year 2000. It concluded that a more adequate and timely method of financing management programs on Federal forest land is essential. The Panel stated that such a method must recognize the long-term nature of forestry and must be based on sound economic concepts of intensive forest management.

Because of the expected shortages in future timber supplies, it is important that the Forest Service promptly carry out reforestation and TSI on national forest land where such work will result in worthwhile increases in the timber supply and other multiple-use benefits.

## SCOPE OF REVIEW

To evaluate the effectiveness of the Forest Service's reforestation and TSI programs, we reviewed the laws that authorize and provide funds for the programs and the agency's related policies, procedures, and practices. We made our review at the Forest Service headquarters office in Washington, D.C., the Forest Service regional offices in Missoula, Montana; Denver, Colorado; Portland, Oregon; and Milwaukee, Wisconsin, and several national forests within these regions.

## CHAPTER 2

### MORE INTENSIVE REFORESTATION AND TSI NEEDED

The Forest Service's reforestation and TSI programs need to be accelerated to provide for optimum timber growth<sup>1</sup> and increased multiple-use benefits on national forests. Annual national forest timber yield in fiscal year 1973 was 12.4 billion board feet. The Forest Service has estimated that it could increase the yield to about 20 billion board feet by the year 2000 if sufficient funds and manpower are made available for more intensive forestry management practices, including reforestation and TSI. The Forest Service has acknowledged, however, that it does not have sufficient land inventory data and fund allocation procedures to insure that available funds are used where reforestation and TSI would result in optimum timber growth and other multiple-use benefits.

Funds requested from and appropriated by the Congress and funds collected by the Forest Service from timber purchasers for reforestation and TSI have not been enough to enable the Forest Service to reduce a large backlog of land needing reforestation currently estimated to be 4.8 million acres and, at the same time, insure that reforestation of timber harvest areas keeps pace with the harvesting. The Forest Service also has estimated that it has a backlog of 13.4 million acres of land needing TSI.

The land in the reforestation and TSI backlog would provide much of the increased yield that the Forest Service says can be obtained from national forests. The backlog has persisted for many years even though (1) the Congress enacted legislation in both 1949 and 1972 (see pp. 13 and 14) providing special emphasis on, and special authority for, appropriating funds for reforesting large acreages of national forest land

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<sup>1</sup>Optimum timber growth is that level of growth which would contribute the greatest overall benefits toward achieving multiple-use and sustained yield of all forest resources, including timber, recreation, watersheds, and fish and wildlife habitat.



and (2) the sale of timber from national forests over the years has returned substantial funds to the Treasury.

In our opinion, accelerated reforestation and TSI would help achieve the congressional objective of managing national forest resources for multiple-use and sustained high-level yield to meet public demand and, as expressed in the 1949 and 1972 legislation, of increasing timber supply on national forest land. This objective appears especially important because of the projected timber supply shortages and recent sharp increases in the prices of lumber and plywood for home building. The Forest Service has identified management improvements needed to insure optimum use of reforestation and TSI funds and has established plans for making them. But a Forest Service headquarters official told us that it will be several years before the improvements are fully implemented.

#### FUNDING OF REFORESTATION AND TSI

The Forest Service finances its reforestation and TSI programs with (1) annual appropriations by the Congress for forest protection and management, as authorized by the Organic Act of 1897, as amended (16 U.S.C. 475), and (2) funds collected for that purpose from timber purchasers, as authorized by the Knutson-Vandenberg (KV) Act of 1930 (16 U.S.C. 576). KV funds may be used only in areas where timber has been harvested. Appropriated funds may be used in both timber harvest areas and areas deforested by fire, insects, disease, and other causes.

The Forest Service's application of legal and administrative limitations (see p. 19) on the amount of KV funds that can be collected and used have precluded it from setting aside enough funds to fully finance the reforestation and TSI needed in timber harvest areas and it has used regular appropriated funds to offset the deficits in KV funds. Funds requested and obtained through the appropriations process have not been adequate to offset such deficits and still enable the Forest Service to reduce the accumulated reforestation and TSI backlogs.

#### Appropriated funds

The Forest Service has general authority under the Organic Act of 1897 to use appropriated funds for reforestation and TSI. The Congress enacted additional legislation

in 1949<sup>1</sup> to give special emphasis to, and special authority for, appropriating funds to reforest large acreages of national forest land. The 1949 act stated that:

- The demand for national forest timber was steadily increasing.
- National forest land contained over 4 million acres of denuded and unsatisfactorily stocked timberland, all of which were potentially capable of producing an important part of the timber needs.
- It was practical to reforest the denuded and unsatisfactorily stocked land by 1965.
- To insure effective, efficient, and economical operations, it was necessary to provide a reasonable continuity of reforestation.
- The declared policy of the Congress was to accelerate and provide a continuing basis for the needed reforestation of national forest land.

According to the legislative history of the 1949 act, the estimated 4-million-acre backlog of denuded land had resulted primarily from large fires and pest epidemics. The act authorized \$3 million for fiscal year 1951; \$5 million for fiscal year 1952; \$7 million for fiscal year 1953; \$8 million for fiscal year 1954; \$10 million each for fiscal years 1955 through 1965; and thereafter such amounts as might be needed for reforestation.

Forest Service records did not show the extent to which appropriated funds had been requested, obtained, and used pursuant to the 1949 act to reforest the backlog. According to Forest Service information, however, the backlog appears to have increased since 1949.

On the basis of a 1968 adjusted inventory, the Forest Service estimated that, as of July 1973, the national

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<sup>1</sup>Anderson-Mansfield Reforestation and Revegetation Act of 1949 (16 U.S.C. 581j, 581k).

forests contained a backlog of about 4.8 million acres of land in need of reforestation. Forest Service officials told us that their records did not show how many of these acres had also been in the 4-million-plus acres cited in the 1949 act, where the land was, what condition it was in, or what had deforested it. Forest Service officials told us that most of the land either needed reforesting when it was added to the national forest system or had been deforested by fire, insects, diseases, and other causes after it was added. They said that only a small part of the backlog had been deforested by timber harvesting.

In addition to the reforestation backlog, the Forest Service estimated that it had accumulated a backlog of 13.4 million acres of land needing TSI because it generally gave priority to reforestation and TSI on cutover or recently burned areas rather than on the backlog areas. According to the Forest Service, the cutover or recently burned areas generally had better resource data, better access, and a greater urgency for the work from a total resource conservation standpoint.

The Forest Service has stated that half of the land needing reforestation and TSI needs to be studied further to determine whether it should be used for timber production. According to the Forest Service, the reforestation and TSI needed on the other half would cost about \$724 million and, assuming that funds were made available as needed, could be completed in 10 years.

Appropriated funds requested and obtained for reforestation and TSI in the past several years were less than the Forest Service had estimated it needed, as shown in the following table.

<u>Fiscal year</u>	<u>Forest Service estimate</u>	<u>President's budget request</u>	<u>Amount included in appropriations</u>
(000 omitted)			
1968	\$ 22,807	\$ 15,790	\$ 15,790
1969	21,248	16,107	16,013
1970	20,786	17,170	17,170
1971	33,369	20,259	20,259
1972	32,070	26,735	31,195
1973	<u>46,253</u>	<u>28,657</u>	<u>a31,702</u>
Total	<u>\$176,533</u>	<u>\$124,718</u>	<u>\$132,129</u>

<sup>a</sup>The Office of Management and Budget impounded \$3 million of this amount.

The Office of Management and Budget (OMB) stated it had been impossible, in recent budgets, for the Secretary of Agriculture to recommend to the President that all agency requests within the Department be funded fully, and it had been impossible for the President to recommend to the Congress that all Department requests be fully met. OMB stated that, although the President's budget proposals for this purpose had increased considerably since 1968, resources were limited and the necessity to make many difficult choices had been inescapable.

In September 1972 the Congress enacted legislation (86 Stat. 678) to provide that the Secretary of Agriculture establish a supplemental national forest reforestation fund and transfer to that fund, beginning with fiscal year 1973 and ending on June 30, 1987, such amounts as may be appropriated for that purpose, not to exceed \$65 million a year. The act provides that these funds shall not prejudice other funds appropriated for reforestation or funds collected from timber purchasers for that purpose. The legislative history of the 1972 act shows that the Congress was concerned, as it was in 1949, about the large reforestation backlog and the growing demand for timber.

The 1972 act required that the Secretary report to the Congress by September 18, 1973,<sup>1</sup> on the scope of the total national forest reforestation needs and the program for reforesting such lands, including the extent to which funds authorized by the 1972 act are to be applied to the program. The act requires also that the Secretary report annually on the progress of his reforestation program. The act does not make any provision for the TSI backlog.

Although the act authorized appropriations up to \$65 million a year for reforestation, as of June 1973 the Forest Service had not requested or obtained any of these funds. The final budget request for national forest protection and management for fiscal year 1974 included \$23.1 million for both reforestation and TSI. The requested amount was about \$16.8 million less than the Forest Service's estimated needs for that year. The 1974 appropriations act (Public Law 93-120)

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<sup>1</sup>A Forest Service official advised us in November 1973 that this report would not be made before early 1974.

included \$32.1 million for reforestation and TSI, \$9 million more than requested but \$7.8 million less than the Forest Service's estimated needs.

If funds for reforestation and TSI are not increased, the Forest Service will not be able to reduce the backlogs substantially and, at the same time, insure that reforestation and TSI in timber harvest areas keep pace with the harvesting. The potential impact of the increased appropriated funds for fiscal year 1974 on the backlogs cannot be determined readily because an unknown portion of such funds will be used in harvest areas to offset KV fund deficits.

### Timber sale payments

Timber purchaser payments for timber generally include amounts for KV deposits and several other required or voluntary deposits. These deposits are distributed to appropriate accounts and become available for carrying out such designated functions as reforestation and TSI, soil erosion control, and brush disposal. Payments for the timber, exclusive of KV and other deposits, are deposited into the National Forest Fund. Several laws govern the disposition of this fund, principally as follows.

- 10 percent of the total receipts must be used for constructing and maintaining forest roads and trails in the national forest from which the timber has been sold. (The act of Mar. 4, 1913, as amended, 16 U.S.C. 501).
- 25 percent must be distributed to the States containing the national forests, to be used for public schools and public roads in the county or counties in which such forests are located. (The acts of May 23, 1908, and Mar. 1, 1911, as amended, 16 U.S.C. 500).
- The balance must be deposited in the Treasury as miscellaneous receipts. (The act of Mar. 4, 1907, as amended, 16 U.S.C. 499).

The amounts of KV funds collected for reforestation and TSI in the harvest areas had been considerably less than the amounts which the Forest Service estimated were needed for such work. Forest Service records showed that, as of June 30, 1971, needed reforestation and TSI in harvest areas

would cost an estimated \$55 million more than the amount of KV funds on hand. The deficit shown in the records was understated significantly because the estimated needs did not include all harvest areas.

The deficit in available KV funds has resulted primarily from the Forest Service's application of legal and administrative limitations on the amount that can be set aside in a given timber sale for reforestation and TSI. Forest Service officials stated that in some cases, timber sales made in understocked or damaged stands contributed to the deficit when the volume and value of timber to be cut were low and funds collected to pay for reforestation and TSI were inadequate. The officials did not know what portion of the total deficit this represented.

#### Application of legal limitation

The KV act provides that funds may be collected from timber purchasers, in addition to their payments for timber, to cover the cost of reforestation and TSI and that these funds cannot exceed the average cost per acre of such work on comparable national forest land during the previous 3 years. In many instances the estimated costs of the needed work were greater than the 3-year-average costs computed by the Forest Service. Therefore, the amounts collected were less than the estimated amounts needed.

For example, our review of 11 randomly selected timber sales in a national forest in the Forest Service's Pacific Northwest region showed that, in each of the individual sales, application of the 3-year-average costs resulted in collecting from \$3,000 to \$20,000 less than the estimated amount needed. The estimated amounts needed for all 11 sales totaled about \$284,000. The amounts collected for the sales totaled about \$161,000, leaving a deficit of about \$123,000.

Agriculture's Office of the Inspector General (OIG) reported on October 15, 1971, that its review of 12 timber sales in the same national forest showed that the total amount collected for reforestation and TSI was about \$78,000 less than the total estimated amount needed because the amounts collected were limited by the 3-year-average costs.

The differences between 3-year-average costs and the estimated amounts needed were attributable partly to inflation

and partly to the omission of certain costs from the computations of the 3-year-average costs.

### Inflation

The amount of KV funds to be collected from a timber sale is determined before advertising the sale. In many cases the purchaser takes several years to harvest the timber. Further, reforestation and TSI usually are not completed until several years after harvesting. Although the Forest Service allows for inflation in its estimates of what will be needed for reforestation and TSI in the sale area, the KV limitations are based on the 3-year-average costs before the timber contract award and do not provide fully for inflation. As a result, a deficit occurs to the extent actual reforestation and TSI costs exceed the KV limitation.

A Forest Service official at the national forest where we reviewed the 11 timber sales told us that computations of 3-year-average costs of reforestation and TSI had not included all costs that could have been included. OIG, which covered this matter in its review, said that inclusion of all allowable costs in the 3-year averages for the 12 sales it reviewed would have resulted in collecting about \$50,000 more, but there still would have been a deficit of about \$28,000. After OIG issued its report, the Forest Service revised its internal instructions to clarify what cost items could be included in computing the 3-year-average costs.

### Application of administrative limitations

In some locations--where small timber sale volumes result in distribution of relatively small amounts of revenue to the States--Forest Service field officials limited the amount of collected KV funds that could be set aside for reforestation and TSI. According to the Forest Service, the purpose of these administrative limitations is to permit the States to get larger amounts from the National Forest Fund than they would get if the full amounts permitted by the



KV act were set aside for reforestation and TSI.<sup>1</sup> The administrative limitations established by the respective national forest supervisors for the 15 national forests in the Forest Service Eastern Region were as follows.

<u>National forest (States)</u>	<u>Administrative limitation (percentage of timber payment available for reforestation and TSI)</u>
Shawnee (Illinois)	50
Wayne--Hoosier (Ohio and Indiana)	50
Hiawatha (Michigan)	(a)
Huron--Manistee (Michigan)	(a)
Ottawa (Michigan)	15
Chippewa (Minnesota)	50
Superior (Minnesota)	40
Clark (Missouri)	(a)
Mark Twain (Missouri)	(a)
White Mountain (New Hampshire)	(a)
Allegheny (Pennsylvania)	(a)
Green Mountain (Vermont)	33
Monongahela (West Virginia)	40
Chequamegon (Wisconsin)	35
Nicolet (Wisconsin)	35

<sup>a</sup>There were no established administrative limitations for these national forests as of June 30, 1973; however, the 3-year average applies.

The administrative limitations result in setting aside for reforestation and TSI less than the amount permitted by the KV act and less than the estimated cost of the work. For example, for three selected timber sales in a national

---

<sup>1</sup>There is no statutory requirement that a minimum amount of timber sale revenue be deposited in the Treasury for distribution to States. Forest Service policy, however, requires that at least 50 cents a thousand board feet from each timber sale be deposited in the National-Forest Fund.

forest in the Eastern Region, Forest Service personnel estimated that reforestation and TSI would cost \$264,000. According to the records for these sales, application of the 3-year-average-cost limitations would have permitted setting aside the full \$264,000. But, because the administrative limitation established for that national forest was 30 percent of the timber sale payments, only about \$100,000 was set aside for reforestation and TSI in the three areas, leaving a deficit of about \$164,000.

#### Use of appropriated funds to offset KV fund deficits

When a timber harvest area in a national forest is ready for reforestation and TSI--which is usually several years after the timber sale is made--any deficit in the KV funds set aside from the timber sale payments for the area must be made up from either appropriated funds or KV funds set aside from timber payments in other areas in the forest.<sup>1</sup> Eventually, the expended KV funds from these other areas will have to be replaced with appropriated funds. Use of appropriated funds in timber harvest areas reduces the amount available for reforestation and TSI in areas deforested by insects, disease, fire, and other causes, which, according to the Forest Service, make up the major portion of the large backlog of land in need of reforestation and TSI.

Forest Service records did not show the amount of appropriated funds that had been used to offset the deficits in KV funds. Other information we obtained, however, indicated that the amount was substantial.

Pacific Northwest Region officials told us that many national forests in that region had used significant amounts of appropriated funds for reforestation and TSI because of the deficits in KV funds. An official at the national forest where we reviewed the 11 timber sales (see p. 19) estimated that 95 percent of the appropriated funds allocated to that forest in past years for reforestation and TSI had been used for work in harvested areas.

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<sup>1</sup>KV funds are pooled for each national forest and remain in the pool until expended.

The national forest received about \$467,000 of appropriated funds for reforestation and TSI during fiscal year 1972. The official told us that the forest had a large backlog of needs in areas deforested by causes other than timber harvesting.

Eastern Region officials estimated that, of \$1.2 million of appropriated funds allocated to three of the national forests in that region for reforestation and TSI during fiscal year 1972, about \$540,000, or 45 percent, was used for such work in harvest areas. Each of these national forests had established administrative limitations on the percentage of timber sale payments that could be set aside for work in the harvest areas. Forest Service officials at each of these national forests said that they had backlogs of work--in areas other than harvest areas, that could be reduced if funds were available.

Net timber sale receipts deposited  
in the Treasury

Although funding levels for reforestation and TSI have not been sufficient to enable the Forest Service to reduce the accumulated backlogs of land needing such work, the net timber sale receipts deposited in the Treasury as miscellaneous receipts have been substantial.

For fiscal years 1968 through 1972, the net deposits--after setting aside the limited amounts for reforestation and TSI, deducting 10 percent for forest roads and trails, and distributing 25 percent to the States for public schools and roads--totaled about \$838 million. This was substantially more than the estimated \$724 million needed for reforestation and TSI on that portion of the backlogs which the Forest Service estimated could be completed in 10 years if funds were made available. (See p. 15.)

FOREST SERVICE PLANS TO IMPROVE  
DATA AND PROCEDURES FOR  
ALLOCATING APPROPRIATED FUNDS

The Forest Service has not had adequate data and procedures to insure that appropriated funds made available for reforestation and TSI were allocated and used in the areas where such work would result in optimum timber growth and other benefits. The Forest Service acknowledges that it needs to improve its data and its procedures and has adopted plans to do this. According to a Forest Service headquarters official, however, full implementation of the improvements will take several years.

After passage of the National Environmental Policy Act of 1969 (42 U.S.C. 4321), the Chief of the Forest Service ordered a nationwide review of national forest timber management. The review team's report, issued in March 1971, identified numerous management problems, including reforestation on which it commented as follows:

"Problem: Concerning non-stocked or poorly-stocked forest land that must be brought into production, to redefine priorities and execute a system that gets the first priority work done first.

"Inadequate reforestation funds and a lack of specific information about location and condition of areas that should be reforested are problems of long standing. Consequently, nonstocked and non-productive forest lands have come to be widely regarded in and outside the Forest Service as a normal and acceptable part of the National Forest landscape.

"As a part of management-plan inventories, a recall system should be put into effect to show the location, size, site quality, site-preparation needs, and chances for regeneration success, area-by-area of nonproductive lands. This is essential so that reforesting those areas that are planned for timber production can be accomplished on a sound priority basis. Available funds should be directed to specific deforested areas on the basis of needs and priority, even if some Districts and some

National Forests get no funds during some years."

OIG, in its October 1971 report on its review at several national forests in the Pacific Northwest Region, stated that:

- Appropriated funds for reforestation and TSI were being allocated to forests without insuring that projects were sound or had the highest priority, and, as a result, some young timber stands with high growth potential were not being thinned and replanting was being done in areas with a history of failures and little chance for success.
- These conditions were due to an inadequate project priority system. Forest Service officials did not have a reasonably accurate inventory of areas needing reforestation and TSI and could, at best, only roughly estimate the number of acres needing such work.

In June 1972 the Forest Service established a plan for redefining reforestation priorities and establishing a system to get the highest priority reforestation done first. The planned actions included:

- Developing and issuing directives by September 30, 1972, to require that nonstocked and poorly stocked commercial land would be located and described by site and condition classes in the inventory data used for management plans.
- Increasing funds to be allocated, beginning with fiscal year 1973, for locating, describing, and prescribing treatment for all nonstocked and poorly stocked commercial land.
- Issuing standard instructions, by September 30, 1972, for making economic analyses of reforestation opportunities.
- Revising the Forest Service Manual, by September 30, 1972, to require that regions establish guidelines

for reforestation priorities and that ranger districts<sup>1</sup> maintain project priority lists.

- Developing, as soon as possible, growth tables for managed stands of all timber types and site productivity classes.

As indicated, the plans referred only to reforestation and did not specifically state that better data would be accumulated and a funding priority system would be established for areas needing TSI. Forest Service headquarters officials had intended to include TSI, and told us that implementation of the plan would include TSI.

As indicated in the list of planned actions, the target dates pertained mainly to the issuance of directives and guidelines. The plan did not contain target dates for actual implementation of the improvements by Forest Service field offices.

In June 1973 we inquired into the progress being made toward implementing the plans. A Forest Service headquarters official told us that:

- A directive requiring locations and descriptions of land needing reforestation and TSI was issued in May 1972, but the degree of actual implementation at June 1973 varied for different field offices. For example, some had completed the listing for 75 percent of their land, while others had completed it for only 10 to 20 percent. Several years will be needed to complete the requirement.
- Appropriated funds allocated for locating, describing, and prescribing treatment for land needing reforestation and TSI were increased from about \$682,000 in fiscal year 1972 to about \$1.4 million for fiscal year 1973 and about \$2.5 million (tentative allocation based on budget request) for fiscal year 1974.

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<sup>1</sup> Each national forest is composed of one or more ranger districts.

- Standard instructions for making economic analyses of reforestation and TSI opportunities had not been issued and a new target date for doing so had not been set, but issuance of the instructions was planned.
- The manual was revised in June 1973 to require field offices to establish guidelines for assigning reforestation and TSI priorities. No target dates had been set for implementation of the guidelines.
- Growth tables had been developed for many timber types and land classes, but it would take several years to develop such tables for all types and classes.

In summary, the Forest Service official stated that (1) progress had been made but present data and procedures for planning and funding reforestation and TSI do not provide adequate assurance that available funds will be applied first to those areas where such work will result in optimum timber growth or other benefits and (2) progress toward resolving the problem will be gradual over a period of several years.

## CONCLUSIONS

Because of the sustained-yield requirements in the law and because of the problems in meeting the Nation's growing demand for timber, all reasonable efforts should be made to optimize growth on national forest land. Optimizing timber growth on national forest land needing reforestation and TSI--which represents the major source of the estimated 8 billion board feet of additional annual timber yield that the Forest Service says can be attained by the year 2000--will require increases in annual funding and improved land inventory data and fund allocation procedures.

The Congress recognized the need for accelerated efforts to increase timber growth on national forest land when it enacted the 1949 legislation that provided special emphasis on, and special authority for, appropriating funds to reforest the large backlog of denuded national forest land. Instead of being reduced, however, the backlog appears to have increased since 1949. Also, an even larger backlog of TSI needs has accumulated.

In passing the 1972 act that authorized additional appropriations up to \$65 million a year for reforestation alone, the Congress again was concerned about the large backlog. But the budget requests for both reforestation and TSI for fiscal years 1973 and 1974 were \$28.6 million and \$23.1 million, respectively, which were substantially less than the Forest Service's estimated needs for those years.

Although the appropriations act for fiscal year 1974 increased funds for reforestation and TSI above the amount requested, the increase is still less than the Forest Service's estimated needs for that year. Also, the potential impact of the increase on the reforestation and TSI backlogs cannot be readily determined because an unknown portion of the appropriated funds will, if past practices continue, be used to offset deficits in KV funds set aside for reforestation and TSI in harvest areas.

Additional funds could be made available by further increasing the amounts included for reforestation and TSI in the annual appropriations.



An alternative would be to provide for the use of timber sale payments for reforestation and TSI by enacting legislation to provide for earmarking, at the end of each year, part of the net receipts remaining in the National Forest Fund after distributing 25 percent to States and allocating 10 percent for forest roads and trails and before depositing such funds in the Treasury as miscellaneous receipts.

Such legislation could provide that the specific amount to be earmarked each year be approved by the Congress. Earmarking an amount equal to the KV deficit accumulated during the year would insure that sufficient funds are available to be used for needed reforestation and TSI in timber harvest areas, without disturbing the traditional basis for computing States' shares of timber sale revenues. This would free all other reforestation and TSI funds appropriated for use in backlog areas where KV funds cannot be used.

If desired, the Congress could earmark amounts of net timber sale payments sufficient to cover the KV deficit accumulated during the year and part of the backlog of needs in areas where KV funds cannot be used. Such provisions could make it unnecessary to make separate annual appropriations from the general funds of the Treasury.

Another alternative for providing additional funds for reforestation and TSI would be to amend the KV act and change the related administrative procedures and practices to provide for collecting, on a sale-by-sale basis, enough KV funds to fully cover the cost of reforestation and TSI needed in timber harvest areas. Provision could also be made to require that the total amount collected be reviewed annually by the Congress.

Although this alternative would not directly affect the amount of funds available for reforestation in backlog areas where KV funds cannot be used, it would reduce or eliminate the need to use appropriated funds in harvest areas and thereby free such appropriated funds for use in backlog areas.

Because KV funds are deducted from timber sale payments before States' shares are computed, increases in KV funds set aside could decrease the States' shares of the receipts from a given sale unless the basis or percentage used for computing such shares is also changed. Increased timber

growth from more intensive reforestation and TSI, however, could result in short- and long-term increases in the overall amounts of timber sale receipts distributed to the States.

Care should be taken in considering annual funding levels, regardless of their source, to insure that the funds will be used on highest priority work. The Forest Service actions, planned and in process, when implemented, should provide better assurance that funds are used where needed reforestation and TSI will result in optimum timber growth and other multiple use benefits.

Because full implementation of the needed improvements cited in the plan will require long-range planning, the headquarters office should require each field office to set specific target dates for implementing the needed improvements.

The reports required by the 1972 act should provide the Congress with valuable information on total reforestation needs in national forests and the progress being made toward meeting those needs. Such reports would be even more valuable, however, if they included the same data for TSI needs and information on the progress of the Forest Service's efforts to improve its land inventory data and fund allocation procedures to insure that reforestation and TSI funds are used on the highest priority work.

RECOMMENDATIONS TO THE SECRETARY  
OF AGRICULTURE

We recommend that the Secretary, in the subsequent reports on reforestation submitted to the Congress pursuant to the September 1972 act, include:

- Information on the total national forest TSI needs and the Forest Service plans for and progress toward fulfilling such needs.
- Information on Forest Service headquarters and field offices progress in improving land inventory data and fund allocation procedures to insure that reforestation and TSI funds are applied first to those areas where such work will result in optimum timber growth and other multiple-use benefits, such as improved recreational, watershed, or wildlife areas.

We recommend also that the Forest Service require its field offices to set target dates for completing the planned improvements in the land inventory data and fund allocation procedures.

MATTERS FOR CONSIDERATION BY THE CONGRESS

In determining annual funding levels for reforestation and TSI on national forest land, the Congress may wish to consider Forest Service progress in improving land inventory data and fund allocation procedures to insure that funds are used on a priority basis and to reduce the large backlog of land needing reforestation and TSI.

If the Congress desires to accelerate reforestation and TSI programs, it could (1) increase regular appropriations from general funds of the Treasury, (2) enact legislation to provide for earmarking and appropriating for reforestation and TSI work part of the annual net timber sale payments remaining in the National Forest Fund after all other distribution requirements have been met, or (3) amend the KV act to provide for setting aside, on a sale-by-sale basis, enough KV funds to fully cover the cost of reforestation and TSI needed in timber harvest areas and, in connection with such change, provide for annual congressional review of the total amount set aside.

In considering such legislation, the Congress should explore with the Department whether administrative limitations should continue to be imposed on the percentage of timber payments that can be set aside for reforestation and TSI.

OMB COMMENTS  
AND OUR EVALUATION

OMB (see app. I) stated that our report raised important questions about the legal and administrative limitations on the amount of funds that are set aside for financing reforestation and TSI. It agreed on the need for an operational system for identifying priority timber investment opportunities. OMB stated that it would continue to work with the Department on these matters.

OMB stated that the appropriate level of reforestation and TSI investments should be determined by insuring that (1) the investment returns are equal to or greater than returns possible from alternate uses of available funds and (2) the most productive investments are made first.

It stated that the backlog areas represent estimates of the amount of work that would be physically possible if funds were unlimited and if there were no concern that the benefits of each opportunity exceed the investment cost. OMB stated that our report appeared to regard all of this work as comprising viable opportunities even though it expressed concern that fund allocation priorities and land inventory data were inadequate.

We recognize that the backlog areas represent varying degrees of investment opportunities and believe that such opportunities should be funded in order of priority. The Forest Service has stated that half of the backlog areas have been studied and that the needed work should be accomplished.

OMB stated that Agriculture would continue its efforts to to improve the land inventory data, to evaluate investment opportunities, and to improve procedures for allocating funds on a priority basis. Because these actions are necessary for effective forest management, we believe every effort should be made to provide the Forest Service with sufficient resources for accomplishing these actions.

The President's Advisory Panel on Timber and the Environment recommended a substantial increase in appropriations for more intensive management of the national forests. The panel stated that increasing appropriations for the next few years about \$200 million more than the amounts appropriated in

fiscal year 1972 would permit, among other things, an early regeneration of the presently unstocked or inadequately stocked forests which would repay the investment and would make possible TSI of good economic rationality.

#### AGRICULTURE COMMENTS AND OUR EVALUATION

Agriculture (see app. II) stated that, as the result of our review, it already had taken some actions to resolve or improve most of the indicated or expected problems cited. It substantially agreed with our recommendations and cited actions that it would take to implement them. Agriculture stated that:

- Although the September 1972 act did not direct the Secretary to provide information on national forest TSI needs and plans and the status of improving resource data and fund allocation procedures to insure use of reforestation and TSI funds on high-priority areas, the Forest Service could do so in subsequent reports.
- The Forest Service would adjust target dates to establish more precisely when proposed improvements in the land inventory data and fund allocation procedures are expected to be completed or fully implemented.
- A determined effort is being made--to the extent personnel and funds permit--to obtain adequate resource data for determining the relative production capabilities of backlog areas and prescribing treatment for such areas.

Agriculture stated that, of the three suggested alternatives for increasing the funds for needed reforestation and TSI, increases in the regular appropriations would be the most appropriate if within the national priorities. It stated that the deficiencies in KV funds are more the result of procedural errors than the result of legal and administrative limitations. Agriculture believed that it would not be wise or necessary to amend the KV act to provide more funds because it believes that adequate KV funds can be collected, in most cases, to pay for needed work if

collection guidelines and improved management procedures are followed.

We agree that a substantial portion of KV funds needed for reforestation and TSI on future harvest areas could be collected if collection guidelines and improved management procedures are followed. Insufficient KV funds could still result, however, due to inflation and the application of administrative limitations and, as pointed out by Agriculture, to low-volume and low-value timber sales.

Agriculture suggested that, in any study of KV administrative limitations, consideration be given first to the legislative history of various authorities for acquiring privately owned lands for national forest purposes. Agriculture stated that, in practically every case where the approval or concurrence of the local jurisdiction was a factor in the acquisition, there was an understanding that the local jurisdiction could expect to benefit from shared receipts.

According to Agriculture, a continuing high-quality forest resource management job, of which reforestation and TSI are vital elements, is contingent upon

- accurate detailed resource data,
- comprehensive plans for needed forestry practices,
- successful and efficient execution of planned work, and
- assurance that funds and personnel will be available to eliminate reforestation and TSI backlogs and to perform subsequent work and expanded tree improvement (genetics) and fertilization programs.

We believe that, if the above actions are implemented and if Congress desires to accelerate reforestation and TSI programs, the intensified effort could help meet future timber demand and other multiple-use objectives.

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EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D.C. 20503

October 12, 1973

Mr. Henry Eschwege  
Director, Resources and Economic  
Development Division  
General Accounting Office  
Washington, D.C. 20548

Dear Mr. Eschwege:

This responds to your request for comments on your proposed report to the Congress entitled "More Intensive Reforestation and Timber Stand Improvement Programs Could Help Meet Timber Demand".

The draft report presents some interesting and pertinent information. Important questions are raised concerning the legal and administrative limitations on the amount of funds that are set aside from timber sale receipts for financing reforestation and timber stand improvement in harvest areas. We are in full agreement with your concern regarding the present lack of an operational system for identifying priority timber investment opportunities. This office will continue working with the Department on these matters.

Two conditions are of paramount importance in determining an appropriate level of reforestation and timber stand improvement investments on national forests. The first condition is that returns on such investments should be equal to or greater than returns which can be achieved through alternative uses of available funds. The second condition is that all such investment opportunities should be ranked in order of their rates-of-return or alternative criteria to assure that the most productive investments are made first. Failure to comply with these conditions will result in a less than maximum contribution to meeting timber demands for any level of investment.

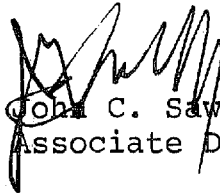
[See GAO note.]

The backlogs of 5.1 and 13.5 million acres of reforestation and timber stand improvement work, respectively represent estimates of the amount of work that would be physically possible if funds were unlimited and if there were no concern that the benefits of each opportunity exceed the investment cost. The draft report appears to regard all this work as comprising viable opportunities even though concern is expressed that fund allocation priorities and land inventory data are inadequate. The Department is continuing efforts to improve the data base, to evaluate investment opportunities, and to improve procedures for allocating funds on a priority basis.

With respect to the history of recent budgets, it has obviously been impossible for the Secretary of Agriculture to recommend to the President that all bureau requests be funded fully nor has it been possible for the President to recommend to the Congress that all Department requests be fully met. While the President's budget proposals for this purpose have increased considerably since 1968, resources are limited and the necessity to make many difficult choices has been inescapable.

We hope these comments will be useful to you and we do appreciate the opportunity to comment on the draft report.

Sincerely,



John C. Sawhill  
Associate Director

GAO note: Deleted comments related to matters presented in the draft report which have been revised in the final report.

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
Washington, D.C. 20250

2470

OCT 29 1973



Mr. Richard J. Woods  
Assistant Director  
General Accounting Office  
Washington, D.C. 20548

Dear Mr. Woods:

In response to your letter of September 3, here are our comments on the draft of your proposed report to the Congress, More Intensive Reforestation and Timber Stand Improvement Programs Could Help Meet Timber Demand.

We appreciate the effort which went into this review and the dialogue with your people during the period of the review. Exploration into the areas of concern cited in the draft report has resulted already--largely during the review process--in resolution or amelioration of most of the indicated or expected problems associated with those areas of concern. For this reason, our comments on the draft report will be brief.

The draft report suggests that Congress consider three alternative actions should it desire to accelerate National Forest reforestation and timber stand improvement programs. We believe the first alternative calling for an increase in regular appropriations would be the most appropriate if it is in keeping with national priorities. We still believe that additional funds needed for reducing the backlog and for other work should come through the regular budget and appropriations process rather than through the earmarking of receipts.

We believe any effort to amend the Knutson-Vandenberg Act as suggested would be both unwise and unnecessary. Adequate Knutson-Vandenberg funds can be collected to pay for needed work in most cases. In a few instances, primarily in understocked or damaged stands where the volume and value of the timber to be cut is low, adequate funds cannot be collected to pay for needed work.

Apparent deficiencies in Knutson-Vandenberg funds are more the result of procedural errors such as improper application of guidelines rather than the result of legal and administrative limitations. The 3-year

## APPENDIX II

average planting cost, which is the legal collection limit, is the sum of all of the component costs of a reforestation job. On many areas some of the component parts may not have been included in the calculation of total costs. We believe most of the needed Sale-Area-Betterment work on timber sales can be financed from Knutson-Vandenberg collections if collection guidelines and other improved management procedures are followed.

As to the draft recommendation that the Congress, in considering legislative alternatives, explore with the Department the application of administrative limitations, we suggest consideration be given first to the legislative history of the various authorities for the acquisition of privately owned lands for National Forest purposes. In practically every case where the approval or concurrence of local jurisdiction was a factor, there was an understanding, tacit or otherwise, that the local jurisdiction could expect to benefit from shared receipts.

The draft report also includes a recommendation that the Secretary include in his annual report to the Congress, pursuant to P.L. 92-421, information on National Forest timber stand improvement needs and plans and the status of resource data and fund allocation procedures to ensure use of reforestation and timber stand improvement funds on high priority areas. Although P.L. 92-421 did not direct the Secretary to provide such information, we can do so in subsequent reports.

Investments in reforestation and timber stand improvement should be based on a careful analysis of the costs and benefits of the goods and services produced such as timber, wildlife habitat, recreation opportunities, watershed protection and erosion control, and esthetic improvement.

[See GAO note.]

Basic to the establishment of rational priorities of work is adequate in-place resource data. Such data is needed to determine the relative production capability of backlog areas and to prescribe the proper treatments to capitalize on those capabilities. We are making--to the extent qualified people and funds permit--a determined effort to get this information.

GAO note: Deleted comments related to matters presented in the draft report which have been revised in the final report.

We can and will make some adjustments of the target dates for completion or implementation of planned improvement in resource inventory data, fund allocation procedures and other actions pursuant to the ACTION PLAN--National Forests in a Quality Environment (pages 6, 35, 40 and 42 of your draft report). These adjustments in due dates for individual action accomplishment and progress reports will establish more precisely when a proposed action is expected to be complete or fully implemented.

With due regard for the place of National Forest resource management and timber production relative to other national priorities, we feel that a continuing high quality forest resource management job, of which reforestation and timber stand improvement is a vital element, is contingent upon:

1. Accurate, detailed in-place resource data for all National Forest lands which, in turn, are dependent upon resource inventories, resource condition examinations, and prescriptions for silvicultural treatment;
2. Comprehensive and detailed plans for the prescribed work;
3. Successful and efficient execution of the planned work resulting in the expected timber growth and other environmental benefits; and
4. Assurance that the funds and fully qualified people needed to do all the above jobs will be available on a sustained high-level basis until the reforestation and timber stand improvement backlog is eliminated and, subsequently, to treat reforestation and stand improvement needs as they occur.

In addition, a National Forest silvicultural program fully responsive to the Nation's timber and other resource needs should include expanded tree improvement (genetics) and fertilization programs. The expected increases in growth and subsequent timber yields range from 10 percent to 30 percent for some species and on certain sites.

Thank you for the opportunity to review and comment on the draft report.

Sincerely,

  
for JOHN R. MCGUIRE  
Chief

APPENDIX III

PRINCIPAL OFFICIALS

RESPONSIBLE FOR ADMINISTERING ACTIVITIES

DISCUSSED IN THIS REPORT

Tenure of office

From                      To

DEPARTMENT OF AGRICULTURE

SECRETARY OF AGRICULTURE:

Earl L. Butz	Dec. 1971	Present
Clifford M. Hardin	Jan. 1969	Nov. 1971

ASSISTANT SECRETARY, CONSERVATION,  
RESEARCH, AND EDUCATION (note a):

Robert W. Long	Mar. 1973	Present
Thomas K. Cowden	May 1969	Mar. 1973
John A. Baker	Aug. 1962	Jan. 1969

CHIEF, FOREST SERVICE:

John R. McGuire	Apr. 1972	Present
Edward P. Cliff	Mar. 1962	Apr. 1972

<sup>a</sup>Title changed from Assistant Secretary, Rural Development and Conservation, in January 1973.

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