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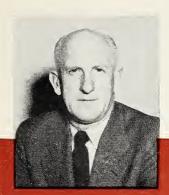
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NATIONAL FORESTS of the SOUTHERN REGION







FOREWORD

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Fifty years ago, the Forest Service was established in the United States Department of Agriculture. Before then, forest "reserves" from the public domain had been established, beginning in 1891, to be administered by the Department of Interior. Also, a forestry agency in the Department of Agriculture had been organized to provide technical assistance to private operators, states, and municipalities.

The Act of 1905 consolidated these cooperative activities and the administration of the forest reserves in one department. Shortly thereafter, the old bureau was designated the "FOREST SERVICE" and the reserves were named "NATIONAL FORESTS".

Decentralization of the new organization soon was accomplished. Six administative regions were established—all with western headquarters, since the bulk of the national forests were in the eleven western states. Later, with national forest acquisition in the East responding to public demand, regional realignment became necessary. An Eastern Region was established in 1914. From it, a Southern Region was marked off some 20 years ago. Thus, on this fiftieth anniversary of the Forest Service at large, the Southern Region has reached its twentieth anniversary.

On this anniversary, it is appropriate to review some of the highlights of 20 years of progress in these National Forests of the South. Therefore, in tribute to farsighted leaders; in acknowledgement of a fine cooperative effort that has made accomplishments possible; and in the hope for a better public understanding that will make future management of these Southern National Forests of even greater benefit to all people, this brief report is being respectfully presented.

REGIONAL FORESTER

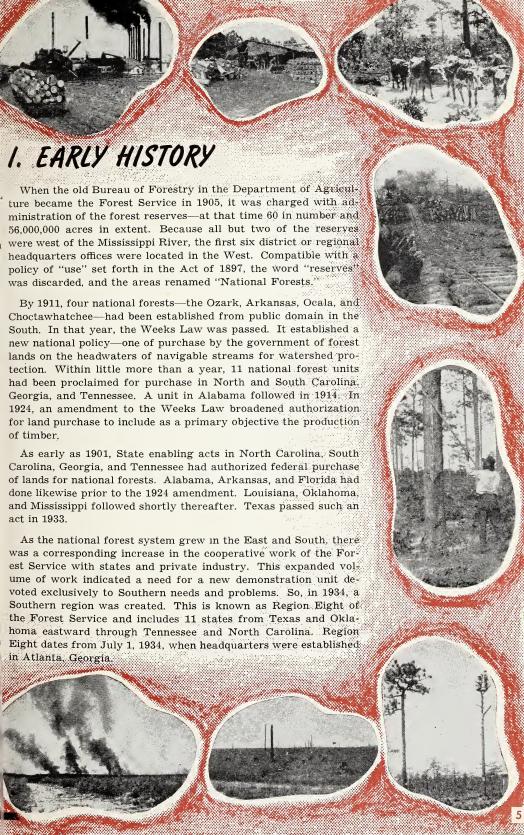
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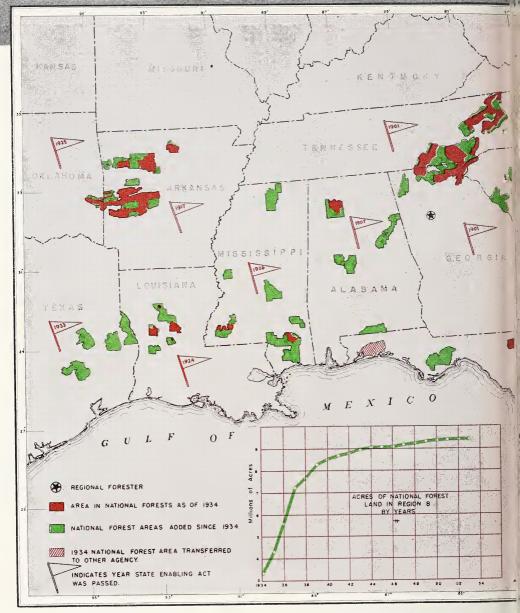
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U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE REGION EIGHT



II. LAND STATUS.



In states later to be included in Region Eight, "public domain" acreage was comparatively small by the time the forest reserves were authorized in 1891. Consequently, when the Weeks Law was passed in 1911, only two forest reserves in Arkansas and two in Florida had been proclaimed. Eventually, one of these—the Choctawhatchee in Florida—was turned over to the War Department. The other three—Ozark, Ouachita, and Ocala—account for most of the 1,139,282 acres of original public domain land now in the 9,441,084-acre national forest system of the Southern Region. The balance, therefore, subsequently has been acquired through purchase, under provisions of the Weeks Law and the Clarke-McNary amendment thereto; and, to a much lesser degree, through donation and transfer. Relatively minor areas have been acquired by exchange.

and REGIONAL

OBJECTIVES

National forests are organized and administered to provide the greatest good for the greatest number of people. In the use of resources and services for public benefit, each is managed to enhance the utility of the whole. Wood, of course is a dominant product; but, along with its production, watersheds are managed for maximum yields of usable water, habitat for wildlife is developed, natural wonders are made available to thousands of recreationists, and forage is provided for livestock. National Forests also serve as large-scale demonstrations of varied timber management techniques which may be used by other owners as guides in the administration of their forest lands.





III. RESOURCE DEVELOPMENT and USE .

Timber

OBJECTIVES OF NATIONAL FOREST MANAGEMENT



REFORESTATION
To place idle land
back into production.
Planted successfully

to date—331,264 acres. More than 100,000 acres reseeded naturally through seedbed preparation activities.



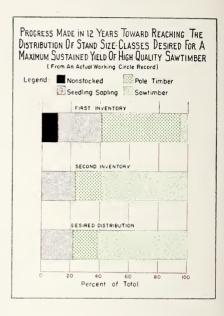
STAND IMPROVEMENT To place every acre in the best condition for

maximum production by "weeding out" undesirable trees and species: except food and den trees for wildlife. Area treated—3,000,000 acres.

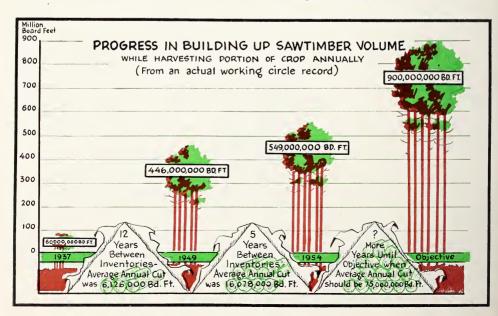


TIMBER SALES To harvest periodically and regularly the largest possible tim-

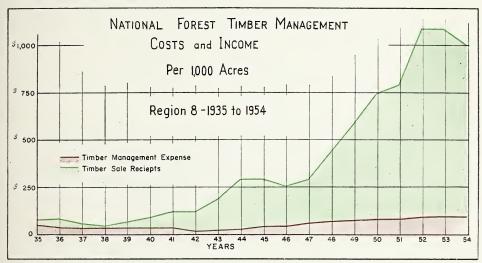
ber crop compatible with insurance that growth on trees left will yield maximum quality and volume per acre.



Records of changes on an older "working circle" are charted above and below. Typical of progress, these also indicate objectives on all 52 working circles into which Region Eight is divided.



WOOD grown on National Forest areas is sold to and harvested by private operators under sales or free use permits. Overall administration, protection, and maintenance expense in operating the national forests is, of course, aimed at maximum forest growth along with all the other derived uses and benefits. However, separate records are kept of the costs of timber management. Such annual costs, over two decades, compared with annual regional income from timber sales throughout the same period, are shown in the following chart.



IN THE LAST 20 YEARS THERE HAVE BEEN HARVESTED FROM THE NATIONAL FORESTS OF REGION EIGHT:









3,807,327,000 board feet of sawlogs; 1,827,383 cords

79,270,000 board feet of cooperage bolts;

1,190,465 cords

of acidwood; 1,279,804 tons

of stumpwood;

of pulpwood;

11,035,000 posts; plus varied lesser products;

PROVIDING

Local residents with some 85,000 man-years of woods employment;

Countless additional man-years for the processing job;

With payrolls and other income dollars totaling into the millions.







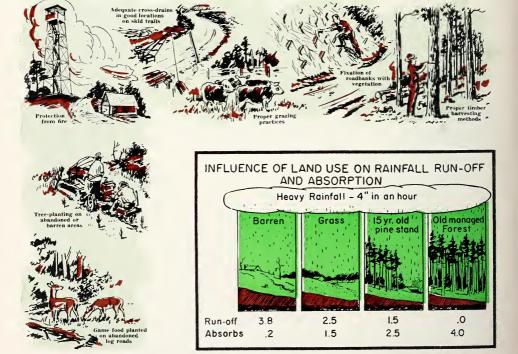


III. RESOURCE DEVELOPMENT and USE.

Water

THE history of mankind is eloquent in testimony that forests are one of Nature's most effective means of maintaining and regulating the quality and beneficent distribution of water—the lifeblood of civilization—the priceless resource on which all living things depend. The first national forests established by purchase in the United States were in recognition of that fact. Long before a specific need for watershed management was to become magnified by water shortages and devastating floods, national forest administration had recognized water as of paramount importance. To insure maximum infiltration of rainfall—minimum runoff and erosion—on all areas, maintenance of adequate forest cover was considered the prime objective. Water management on all national forests takes equal priority always with timber production, wild-life management, recreation, and all other uses. On many areas, it assumes first priority.

CONSTANCY AND PURITY OF WATER PRODUCTION FROM NATIONAL FORESTS ARE MAINTAINED BY THE FOLLOWING PRACTICES:



USES OF WATER FROM NATIONAL FORESTS OF REGION EIGHT

MUNICIPAL

Little Rock, Ark., Fort Smith, Ark.,
Johnson City, Tenn., Hendersonville, N. C.,
Marion, N. C., and eight other communities
have developed water systems
depending on national forest lands for
a daily production of more than 30,000,000 gallons.

INDUSTRIAL

Ecusta Paper Corporation, Champion Paper & Fibre Company, and the Enka Corporation, all in North Carolina, use 92,000,000 gallons of water daily from forested watersheds totaling 162,000 acres, more than 72,000 of which are national forest lands.

HOMES

Andrew R. Calhoun, Franklin, N. C.—60,000 gallons per month from a boxed spring piped to two houses;

Ira Galloway, Highlands, N. C.—30,000 gallons per month from a stream draining a 200-acre watershed;

G. L. Burchfield, Tapoco, N. C.—25,000 gallons a month from a boxed spring in a national forest watershed;

plus 30 other home installations.

OTHER

The water supply for Ocoee Inn, a commercial resort on Forest Service land along the shores of Parksville Lake, Tenn.

The Orange State Security Company depends on water from a 17-acre Pisgah National Forest watershed for an estimated 3,000,000 gallons monthly, mainly to maintain trout rearing ponds.

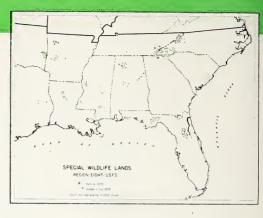
The Walhalla (S. C.) hatchery of the U. S. Fish and Wildlife Service uses 1,000 gallons of water per minute to maintain an average 52°F temperature in producing 15,000 pounds of fish and eggs annually.

The Indian Camp Creek watershed of the Sumter National Forest produces this water.

III. RESOURCE DEVELOPMENT and USE .

Wildlife

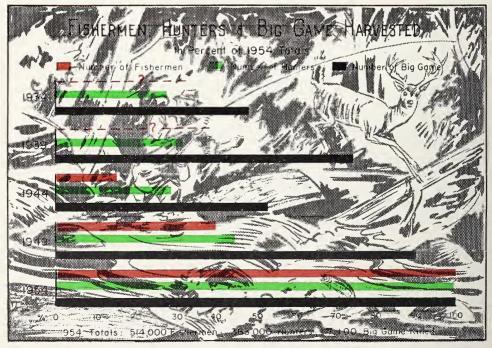
National Forest administrators have been leaders in rebuilding a wildlife resource which was almost gone from the forests. The Pisgah Preserve of 9,700 acres was the first Federal wildlife refuge in the region, established in 1916 in the Pisgah National Forest of North Carolina. Soon, four more were established in the Ozark National Forest of



Arkansas. Twenty others subsequently established in Southern National Forests were sponsored by Federal or State agencies.

The first agreement with a state providing for cooperative management of wildlife was entered into in 1936 with the State of Georgia. Today, the Forest Service has cooperative wildlife management agreements with all eleven states of the region, involving a total of 2,351,155 acres—approximately one-fourth of the net national forest area.

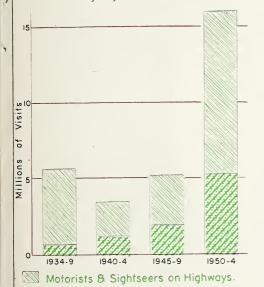
Whereas hunting, under state laws, is open to anyone on all other national forest land, within these cooperatively managed wildlife areas, special regulations apply. Either they are closed to hunting for a period to build up the hunting stock; or they are opened to hunting for short periods under special permit to harvest that increment of game above normal population. Small game and fish also are given special consideration under these programs.



Recreation

FORESTS & PLAYGROUNDS

Average Annual Number Of Recreation Visits By 5-year Periods



Visitors at Developed Areas for All Other Activities

There ore 24 locations in the region developed for week-long comping by organizational groups

while families enjoy summer homes on some of the 115 forest sites already mode ovailable

ond, for those who enjoy hiking, there are 1,634 miles of developed foot troils

. . . that add much to the sum total of outdoor wonder everywhere available to noture-lovers.

Picture morked *
shows port of the
7,400-ocre Linville
Gorge Wild Areo—
only one of its kind
eost of the Rockies.

TO THE SPELL OF THE OPEN ROAD, ADD THE LURE OF WOODED VISTAS, AND THE RESULT IS 10,000,000 RECREATION VISITS TO OUR SOUTHERN NATIONAL FORESTS ANNUALLY



neorly half of whom come for a specific purpose, other than motoring and sightseeing. More than 160 improved areas are ovailable for picnickers



. with 36 recreational lakes having additional facilities for swimming and booting



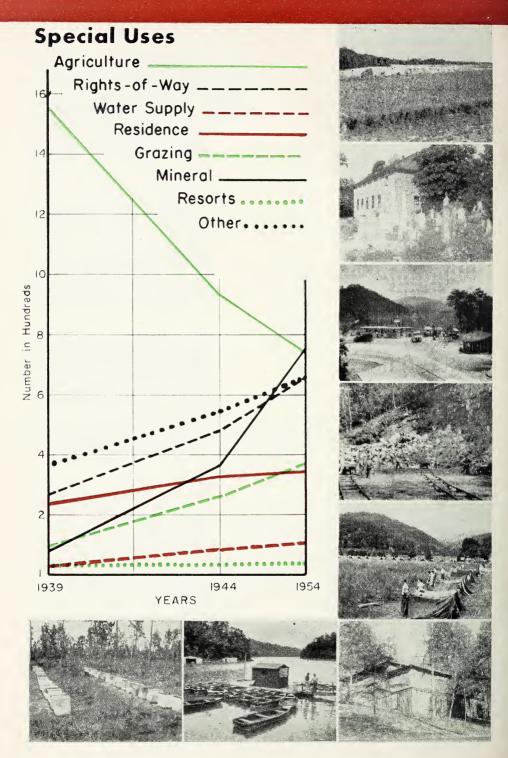
. . . ond with more than 80 of the areas having accommodations for avernight camping—a few for comping with







III. RESOURCE DEVELOPMENT and USE



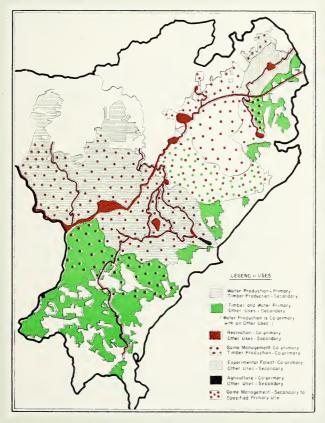
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Total Use

To achieve the multiple benefits for which all national forests were created and must be maintained, all these foregoing uses and services must be integrated into one whole and complete administative pattern. Careful planning is necessary.

Those physical features which largely determine the best ultimate primary and secondary land use will be noted during surveying and mapping, of course, but other factors may become equally important in determining priorities, and must be considered.

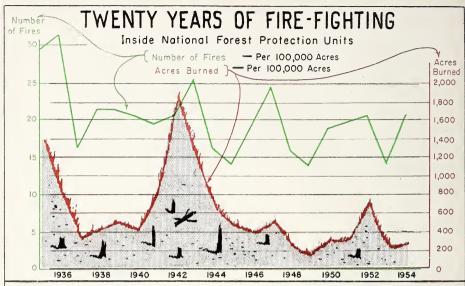
Of prime importance are the number, nature, and livelihood of communities of people immediately adjacent to and sometimes partially within the area to be administered. What are their uses of the resource, dependence on those uses, and what differences of opinion or potential conflicts might result from resource adjustments through management changes?



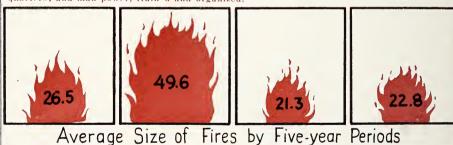
The true conservationist will recognize that land-use planning must weigh many factors before deciding on relative priorities among natural resources. Soil, water, timber, forage, recreation, and wildlife not always comprise a peaceful, happy family living under one roof. Conflicts occur and must be reconciled. Often one use must be subordinated to another. But always, the true conservationist will recognize in soil and water the life substances on which all other renewable resources depend. Rarely will their use be subordinate.

Multiple use, then, is that system of management of forest lands designed to make each acre yield its maximum in variety and volume of benefits to man, with each use fitted most productively to each other use in the overall pattern.

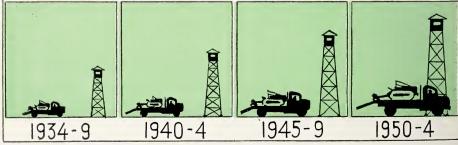
IV. PROTECTING the RESOURCE



The story of man's fight against forest fire—of which a large book could be devoted alone to the Southern National Forest's share of the job—involves statistics beyond average comprehension. It has been a costly battle—time consuming, requiring whole arsenals of tools and equipment to meet extreme emergencies; telephone systems, radio transmitters and receivers for communication; lookout towers for detection; fire breaks; depots; living quarters; and man-power, trained and organized.



The battle is sometimes seasonal; sometimes continuous—but alertness and preparedness must be never-ending. The fire control job involves close cooperation with all state and private organizations for the protection of much private acreage lying within many national forest boundaries.



Fighting Insects

A Few of Region Eight's Most Costly Insect Infestations & Disease Epidemics

Meanwhile infestation portions. ing 30,000 sional tree

The rampage of the black turpentine beetle in northeastern Florida is reported checked over a forest area of 157,000 acres, 19,000 of which are part of the Osceola National Forest which spent \$51,000 for suppression, and estimated damage to 22,000,000 board feet of pine worth \$440,000. Seventy-five million board feet is the estimated volume of timber killed in the Homochitto National Forest of Mississippi by the Southern pine beetle. Estimated damage—\$1,500,000, of which about one-half was salvaged. Acreage involved —187,500. Forest Service suppression costs—\$278,000.

Meanwhile, in the mountainous area of North Carolina, an infestation of Fall cankerworms was reaching serious proportions. The area affected by 1954—125,000 acres, including 30,000 acres in the Pisgah National Forest. Only occasional trees totally killed. Main damage was serious defoliation and reduction in growth.

In the Bankhead National Forest of Northern Alabama, prolonged drought conditions made forest trees easy prey during a heavy infestation of Southern pine beetles over 19,000 acres. More than \$12,000 were spent during the first year of control work, but the estimated damage mounted to 4,000,000 board feet of timber, worth \$50,000, mostly salvaged.

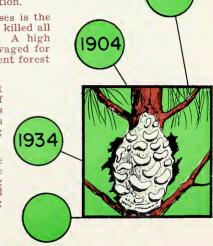
The battle against forest tree insects and disease is never-ending. Sporadic infestations or epidemics in specific localities may be suppressed through concerted action over periods of long or short duration; but, to prevent fresh outbreaks, the forester must remain eternally vigilant and alert to all insect activity and disease symptoms in their relation to weather, soil, and stand conditions. It is reliably estimated that insects and disease are today's prime enemies of our forests, with losses from them annually exceeding even those from fire.

On the national forests, as elsewhere throughout the South, tree diseases cause losses in our timber stands. Unlike insects, they ordinarily do their deadly work more slowly; and damage is measured principally in retardation of growth, defective timber and lost regeneration.

One of the most devastating of forest tree diseases is the chestnut blight fungus which now has completely killed all mature chestnut trees—a very valuable species. A high percentage of the dead and dying trees were salvaged for lumber and other products; but their place in present forest stands is being taken by less desirable species.

Another virulent killer—littleleaf—has been at work in varying degrees of severity in shortleaf stands from Virginia to Alabama, where poor soils have resulted from past land misuse. Rehabilitation will be a slow process. Meanwhile, salvage of dying trees is the recommended action.

Fusiform rust on various species of pine and the "brownspot" blight on longleaf pine seedlings are two other diseases taking heavy toll by causing death and reducing growth rates. Practical control measures to reduce losses are known and are being increasingly applied.



V. ADMINISTRATIVE MEANS and

Roads and Trails









At the time Region Eight was organized in 1934, 4,379 miles of roads and 2,114 miles of trails already comprised the transportation system of Southern National Forests. Today, there are 8,671 miles of Forest Service roads in the region. Foot trail mileage has dropped to 1,745 since some roads have supplanted trails into more remote areas.

The most intensive road-building program was during the Region's early development period. More than 5,000 miles were added the first five years, 1934-9. In succeeding half-decades, mileage additions were 936, 292, and 145, respectively. During later years, however, roads and bridges have been built with greater care, to higher standards for heavier use, at greater unit cost; but with insurance of greater permanence and lower maintenance expense.

Not all of those Forest-Service-built roads remain in the national forest system. A few, no longer needed, have been abandoned; but, more important, several thousand miles of such roads continue to serve in the expanding system of public highways through acceptance by states and counties of responsibility for their maintenance.

Communication Systems



APPLIANCES

Growth and productivity of any living organism depend on the healthy functioning of heart, veins, arteries, brain, nerves, bones, and muscles. No less do National Forests—living, growing, producing organizations—need similar systems.

Structures



A variety of widely-scattered, utilitarian structures are required in national forest administration. Wherever practicable, these are rented; otherwise, they are constructed and maintained. In the latter class currently, are 376 offices and dwellings.

An average of 680 other government-built structures have been maintained in the region during the last five years for use as equipment depots, supply warehouses, repair shops, tool sheds, magazines, and for other purposes. Water supply and sanitation systems in current operation number 270.

Already in place when Region Eight began operation were 142 fire lockout towers. Growth, consolidation, increased cooperation with the states, and increased efficiency, have brought many changes in fire tower status. Today 289 are maintained and operated on national forests.

Five million people, exclusive of motorists and sightseers, annually are attracted to the Southern National Forests to large degree by the presence of shelters, bathhouses, organization camps, dams, boat docks, latrines, and other facilities developed over two decades. Today, more than 425 such structures are being maintained in Region Eight.

Equipment

Machinery, needed in National Forest administration, includes jeeps, pickups, dump and stake-body trucks, passenger cars, tractors of all types, diesel engines, draglines, compressors, stone crushers, pumps, grinders, even wheelbarrows. From meagre use of equipment in 1934, the Region has progressed to today's operation of \$3,306,00-worth of equipment. But equipment does wear out. New equipment currently is costing the Region an average of \$350,000 annually.



Boundaries

Each National Forest has an outer boundary established by presidential proclamation. Where such boundary crosses a main-line highway, the location usually is marked by a large wooden portal bearing a Forest Service shield. A portal of lesser design is used at boundary crossings on secondary highways.

Aside from proclaimed outer national forest boundaries, there are interior boundaries between government and privately-owned land which, too, must be established and marked. As with any ordinary property line in a wooded area, interior boundaries are identified with marks on line and flanking trees. Along national forest land, such marking is accentuated with red paint, Metallic boundary markers also are used along roads, trails, and at prominent points of entry.



Income and Operating Expense

A logical question any potential investor in a business enterprise might ask is: "What dividends does it pay?"

National forests of the Southern Region are not a normal business enterprise. National forests were instituted and are maintained to promote public benefits from water, recreation, wildlife, general economic stimulus, more employment, social and physical rehabilitation—as well as cash returns from use. Nevertheless, taxpayers—investors in this enterprise—continually ask: "What are the costs and what are the returns?"

So, ignoring for the moment all public benefits of intangible value, let's look at cold financial statistics.

As of June 30, 1954, the total investment value of the Southern National Forests was \$98,519,632. Of that total, the biggest outlay, of course, has been nearly \$40 million for land acquired since passage of the Weeks Act, including such timber as it supported at the time of acquisition. Forest development roads account for another \$35 million of investment value. Main items included in the balance are recreation areas; tree plantations; equipment; communications systems; structures; soil and water control improve-

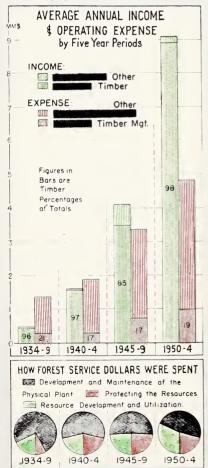
ments; timber stand improvements; wildlife,

range, and land use improvements.

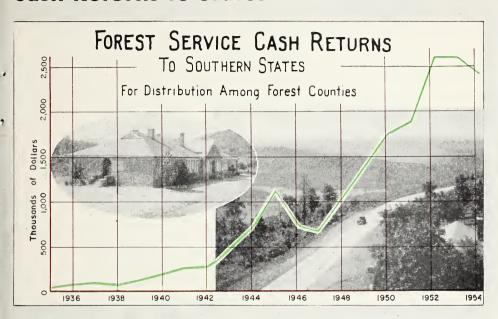
Does this total investment valuation reflect the actual worth of the Southern National Forests today? Roads, structures, much equipment, and many improvements still are present, of course. Normal depreciation of their values has been considered. Also, the land with its timber still is present. But has normal appreciation of its value been duly considered? Have moneys spent for protection, tree-planting, timber stand improvement, and sustained-yield sales procedure paid dividends? In short, would the original purchase price—or even twice that amount—be a fair evaluation today of the worth of the nine-million-plus acres in these national forests?

The answer to that question is "No". And the reason largely lies in the current value of timber alone on these forests. Our estimate of volume in merchantable-sized trees standing in the Southern National Forests today is 18.5 billion board feet of pine and hardwood sawtimber, and 19.2 million cords of pine and saleable hardwood pulpwood. These estimates are based on inventories made during last management plan revisions with no adjustments made for growth and drain during current cutting-budget periods. At average stumpage prices received during national forest timber sales last year, this volume of timber today is worth close to \$400,000,000!

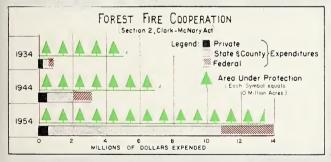
The annual cash income as compared with normal operating expenses—which do not include investment accounts—is reflected in the accompanying chart. How all expenditures have been applied for resource development, protection, and development of the physical plant is shown in the bottom portion of the chart. How the combined treasuries of eleven Southern states have benefitted through the years from the 25% returns from this income is shown in the chart at the top of the following page.

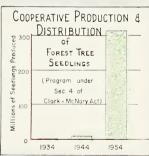


Cash Returns to States



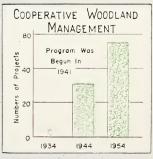
VII. COOPERATION





In addition to State and Private cooperation under Clarke-McNary and Cooperative Forest Management Acts, as shown by accompanying charts, a watershed management program was begun in 1947 through cooperation with the Soil Conservation Service. Expanded in 1953 to include six states, it was given further impetus in 1954 with passage of the Hope-Aiken Watershed Protection and Flood Prevention Act.

A Pest Control Act of 1947 provided for state and private cooperation in forest insect and disease control, outstanding examples of which to date are the pine beetle epidemic control job in Mississippi and a similar control project being started in North Carolina.



VIII. RESEARCH and EDUCATION



IX. SUMMARY

Unquestionably, the good work done on the older National forests of the West, and on the Ozark, Ouachita, Ocala, Chattahoochee, Nantahala, Pisgah, Cherokee, and Alabama, of the South, prior to the 1934 inclusion of the latter into the newly-created Region Eight, had a wholesome effect on the new regional organization. From older forests in this and other regions, old hands transferred—took over new jobs at new locations. From them, the new men caught the spirit and obtained the fundamental knowledge to help speed organizations for administering newly-acquired forest units.

The fact that foregoing statistics do not include records established when older forests were members of other regional organizations, can in no way minimize the fine earlier accomplishments. That fact is due merely to overlapping records too involved for simple analysis and graphic portrayal.

For the newer national forests of the South—and for the older ones to a considerable degree also—it may be said that they have, in two swift decades—passed through two definite phases of development and are now entering a third phase.

During the first decade, emphasis was on establishment and custody—land acquisition, boundary surveys, trespass prevention, afforestation, fire protection, and the construction of roads, bridges, buildings, and communication facilities.

The second decade witnessed greater emphasis on development of techniques in management and use—administrative plans and facilities, sales of timber for cleaning and thinning the stands, managed hunting, recreation, grazing.

Reflecting these trends in administrative emphasis have been changes in numbers and types of Region Eight employees. The percentage of professionally trained foresters, for example, has been considerably increased.

Indications now are that a third phase—one of technical development—is already well started. Cultural improvement of timber stands by mechanical means, fire, and chemicals is well advanced. Stand regeneration and conversion is receiving special attention. The possibility of breeding superior trees is being explored. All resources of the forest are being developed scientifically and consideration is given to the integration of all uses. And, in present over-all planning, ecological, social, and economic trends continually come up for reappraisal.

All current evidence portends a more extensive and far more interesting report twenty years hence.





