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Steven H. Bullard

Stephen F. Austin State University, Arthur Temple College of Forestry and Agriculture,
bullardsh@sfasu.edu

Thomas J. Straka

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Structure and Funding of State-Level Forestry Cost-Share Programs¹

Steven H. Bullard and Thomas J. Straka, Mississippi State University, Mississippi State, MS 39762.

¹ Contribution No. 6644 of the Mississippi Agricultural and Forestry Experiment Station.

ABSTRACT. State cost-share programs have become a popular means of encouraging forest management activities on pri-

vate nonindustrial lands. Programs have been started in 13 states, most with extensive forest industries and high percentages of private nonindustrial land ownership. Cost-shares are a direct economic incentive and are used to encourage such specific practices as reforestation after harvest. Although the need for forestry cost-share programs has been questioned in the past, accomplishments have been high and programs have been effective in increasing reforestation on private lands.

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Many studies have described the importance of nonindustrial private

lands to U.S. forestry, and several have reviewed the success and potential of policies to stimulate nonindustrial private forestry investments.

Prominent studies include Clawson (1974) and a seven article series by Anderson (1975), Gould (1975), McComb (1975), McKillop (1975), Mills (1975), Skok and Gregerson (1975), and Worrell and Irland (1975), as well as reports by Sedjo and Ostermeier (1978), the Forest Industries Council (1980), and Meeks (1982).

Based on previous studies, Teeguarden (1985) listed seven barriers to private forestry investments, discussed which were most important, and identified forest policies addressing each of the barriers. Proponents of cost-share assistance stress the importance of nonindustrial private forests and claim effectiveness in lowering two of the most important barriers to nonindustrial private investment: lack of "front-end" capital and low expected rates of return.

The pros and cons of state cost-share programs are well covered in the literature. Generally, the positive view toward these programs stresses the major impact on long-run timber supplies and the corresponding effect on wood prices. In the long run, consumers are expected to pay lower "real" prices for wood products than would be expected without such programs (McKillop 1975, Foster 1982). Other values often enhanced by forestry incentives are water quality, recreation, wildlife, and esthetics (Custard 1982). Opponents of cost-sharing point out that many nonindustrial private forest landowners may delay reforestation if funds are not readily available (Wishart 1982), or that cost-sharing is being used by many landowners who would have invested in reforestation anyway (Lee 1982).

Although advantages and disadvantages of forestry cost-sharing at the state level are debated, such programs are increasing in popularity. While many forestry and nonforestry public programs have been restricted in recent years, state cost-share assistance has increased. Of the 14 states with current programs, 10 began forestry cost-sharing during the 1980s. Six of the recent programs were started in the last 3 years and at least three other states are presently considering similar forestry incentives.

STATE FORESTRY COST-SHARES

Forestry cost-share programs have been implemented in California, four states in the Upper Midwest, and nine states in the Mid-Atlantic and Gulf South (Fig. 1, Table 1). Programs reflect the forestry concerns and priorities of individual states, yet there are regional similarities. We compare the

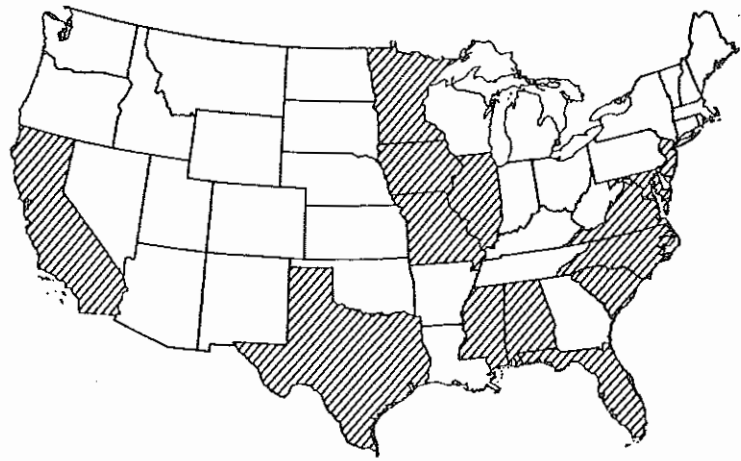


Fig. 1. States with state or privately funded forestry cost-share programs.

purpose, structure, and funding of current programs.

Purpose

Although other forest values are considered, commercial timber production is the primary goal of most state forestry cost-share programs. A circular on the California Forest Im-

provement Program very clearly states the dual purpose common to most states:

Forest products are becoming increasingly scarce in California. The demand for wood already exceeds supply. If small tracts of privately-owned land can be made fully productive, supply and demand will

Table 1. State forestry cost-share program percentages, eligible practices, and sources of funding.

<i>Alabama Resource Conservation Program (1985)</i> —60% for tree planting, site preparation, and timber stand improvement. Funded by trust fund from off-shore oil leases.
<i>California Forest Improvement Program (1980)</i> —75% for site preparation, reforestation, stand improvement, land conservation, planning, and fish and wildlife habitat improvements. Funded by revenues from timber sales on state owned lands.
<i>Florida Reforestation Incentives Program (1981)</i> —pine seedlings free of charge. Funded by forest industry through the Florida Forestry Association.
<i>Illinois Forestry Development Program (1983)</i> —60% through fiscal 1986, 80% after July 1, 1987, for tree planting, site preparation, timber stand improvement, and fencing. Funded through a 4% harvest fee. Also, after 1987, seedlings have been provided without charge to landowners with an approved forest regeneration plan. Funded through general appropriations.
<i>Iowa Woodland Fencing Program (1985)</i> —50% for fencing of forest land subject to soil losses from grazing. Funded through general appropriations.
<i>Maryland Woodland Incentives Program (1986)</i> —50% for reforestation and timber stand improvement. Funded through a 4–5% tax on wooded lands transferred to non-agricultural use valuation for property taxes.
<i>Minnesota Forestry Improvement Program (1985)</i> —65% for woodlands fencing, firebreaks, and pocket gopher control, 50% for road construction. Funded through general appropriations.
<i>Mississippi Forest Resource Development Program (1974)</i> —50% for tree planting or seeding, site preparation, timber stand improvement, and silvicultural burning. Funded through a timber severance tax.
<i>Missouri Soil and Water Conservation Program (1985)</i> —75% for tree planting and fencing. Funded by a 1/10% sales tax; purpose is to encourage conversion of marginal soils to woodland and to prevent erosion due to grazing.
<i>New Jersey Farmland Preservation Program (1986)</i> —50% for plantation establishment, site preparation, and timber stand improvement. Funded through a state bond fund.
<i>North Carolina Forest Development Program (1977)</i> —40% for tree planting or seeding, site preparation, silvicultural clearcutting, and timber stand improvement. Funded through general appropriations and an assessment on primary forest products.
<i>South Carolina Forest Renewal Program (1981)</i> —50% for natural and artificial reforestation, timber stand improvement, and prescribed burning. Funded through general appropriations and an assessment on primary forest products.
<i>Texas Reforestation Foundation (1981)</i> —50% for approved reforestation practices. Funded through a voluntary assessment imposed by forest industry on harvested material.
<i>Virginia Reforestation of Timberlands Program (1970)</i> —50% for site preparation, tree planting, and pine release. Funded one-half by general state tax revenues and one-half from a forest products severance tax.

more nearly balance. In addition, other forest resources will prosper: soil, air, water, vegetation, and animal life will be protected and enhanced now and in the future.

Initial interest in cost-share incentives began in states where USDA Forest Service projections of annual timber growth and harvest were unfavorable for sustained production. The programs are most common in states with a substantial timber-related economy and relatively high percentages of private nonindustrial forestland. Approved practices vary widely, but typically center on site preparation, tree planting and seeding, and timber stand improvement. Minimum and maximum acreage requirements are often used to direct assistance to smaller owner-ships, yet to tracts large enough to produce timber commercially.

One state program stated a unique purpose. Although similar to other cost-sharing programs in many respects, the New Jersey program was not intended primarily to promote commercial timber production. Cost-shares in New Jersey are part of a broad farmland preservation program intended to help retain the state's forests and farmland in agricultural uses.

Besides the established programs, Delaware, Georgia, and Louisiana are considering cost-share programs. Authority has been granted for a cost-share program in Georgia, but the "if and how" of funding is still under consideration. Authorization exists for a program in Alaska, but establishment of a program in the near future appears unlikely.

Structure

Most state cost-share programs are administered by the state's forestry agency. Forest management plans are developed to define needs, and direct cost assistance is provided for eligible practices. All nonindustrial landowners are eligible in most states and corporate landowners are eligible in Illinois, Iowa, Maryland (nonforest industry), and North Carolina.

In most states, approved practices are intended to increase timber production. The Florida Reforestation Incentives Program, for example, provides pine seedlings free of charge. Some state programs, of course, address other needs. In Minnesota, for example, cost-shares are intentionally not provided for practices that qualify for assistance under the federal Forest Incentives Program. Minnesota cost-shares are available for logging roads, woodlands fencing, firebreaks, and pocket gopher control. In Iowa, the most important cost-share emphasis in forestry is fencing of forestland

subject to soil losses from cattle grazing. The California program emphasizes timber-related practices, but also provides cost-shares for fish and wildlife habitat improvement.

Programs vary in the percentage of costs provided by the state. The highest cost-share rate is 80% (California). The most common percentage is 50%. Participation in the federal Forest Incentives Program precludes state cost-shares under most programs.

Funding and Accomplishments

State cost-share programs are often funded from a severance tax on timber. A portion of funding often comes from taxes on primary forest products and a portion from state general appropriations. Funding in Alabama is from a trust fund from offshore oil leases. New Jersey funds cost-shares through a state bond fund. In most states, forest industries support the use of severance taxes or other fees to fund reforestation assistance. In Texas, forest industries fund the program from self-imposed fees per ton of harvested timber. Funding for pine seedling costs in Florida is provided by industry through the Florida Forestry Association. The California program is funded through timber sale revenues from state-owned lands.

Total accomplishments through forestry cost-share programs vary widely between states. Virginia and Mississippi began programs in the early and mid-1970s, and report very high program accomplishments. In Virginia, nearly 250,000 ac have been regenerated under the Reforestation of Timberlands program, representing nearly one-third of reforestation on nonindustrial private forests in the state since 1972. Programs in other states have also succeeded in attracting many private nonindustrial landowners. States with new programs expect increasing numbers of landowner applications.

DISCUSSION

State forestry incentives programs were first established in the early 1970s. Virginia's program has been very successful and has encouraged other states to adopt similar programs. Almost all the states with significant loblolly pine acreages have or are considering some sort of forestry cost-share program. Other programs are in the Upper Midwest and California. Most of the programs are in states with strong forest economies. Interest in the programs often stems from Forest Survey reports that point out serious timber growth/drain problems. The programs therefore usually stress reforestation practices.

All programs require an approved forest management plan.

Forest industry has generally supported the programs. Often the programs are supported jointly by general state appropriations and by a tax on primary forest products. Industry usually supports this tax. In Texas, forest industry supports 100% of the cost-share program (with technical assistance from the Texas Forest Service).

Although one may argue about the social efficiency of states funding reforestation on private property, in terms of increased forest productivity on nonindustrial lands, the programs are effective. Acres reforested each year increase when private landowners are provided direct economic assistance. Where costs and benefits have been compared, state cost-share programs have been found to be economically efficient. Virginia's program was found to have a benefit-cost ratio of about 3.5 at 6% interest rate (Flick and Horton 1981). Cost-share programs were argued not to result in capital substitution (government-induced investment replacing autonomous investment) by de Steiguer (1984).

An important issue for states considering forestry cost-share programs should be how to target funds. State cost-share programs usually have a minimum acreage requirement for treatment (e.g., 10 to 20 ac) or a maximum annual acreage (often 100 to 500 ac); this is a rudimentary form of targeting. Where the goal of forestry incentives is to increase timber production, assistance efforts may need to be directed to lands of high site quality. The success or failure of current or proposed forestry cost-shares in increasing timber supply depends on treating the areas of highest potential contribution to future timber availability. □

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