ABSTRACT

Every 5 years, the Forest Service provides an update of the supply and demand situation for the major commodity and noncommodity outputs from forests and rangelands. The 1993 RPA Assessment Update, scheduled for public review early in 1993, will differ from previous assessments in that it will address not only the outlook for supply and demand but also 12 major issues affecting forest and rangelands. This paper discusses the seven issues that directly affect forestry in the South.

ISSUES AFFECTING SOUTHERN FORESTRY

Five of the 12 issues addressed by the 1993 RPA Assessment Update will directly affect forests in the South. The remaining issues deal with nontimber outputs from forest and rangelands. The issues that will affect Southern forestry are (1) the future of wastepaper recycling, (2) implications of long-term changes in timber utilization technology on the economic efficiency of silvicultural investments, (3) private forestry investment, (4) patterns of species endangerment, (5) trends in non-Federal wetlands habitats, (6) the state and local land-use regulations affecting private forestry, and (7) global climate change.

The research and analysis of these issues will be undertaken at several Forest Service Research locations and will involve cooperation with numerous colleges and universities around the United States.

Future of Wastepaper Recycling

The United States generates millions of tons of municipal solid waste each year. Much of this waste is being disposed of in landfills. Landfill capacity, however, is decreasing as a result of the retirement of older landfills, more stringent environmental requirements, and difficulties in siting new landfills. Paper and paperboard make up the largest material

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component of municipal solid waste. As a result, political and environmental concerns have been directed toward paper and paperboard products.

The analysis of this issue will begin with defining the anticipated shortfalls in landfill capacity. Next, legislative initiatives will be defined for both source separation and recycling. Finally, technological capabilities to increase the use of wastepaper in papermaking will be defined as will alternative means of disposing of wastepaper. The results will provide projected demands for paper and paperboard, pulpwood markets, and international trade in wastepaper and paper products.

Because the South is a major producer of pulpwood, pulp, paper, and paperboard, any change in the consumption of wastepaper could have an effect on the consumption of pulpwood. This would, in turn, have an effect on the timber inventory situation in the South.

Timber Utilization Technology and Silvicultural Investments

Wood utilization technology is changing. Composite fiber products, such as oriented strandboard (OSB), waferboard, and laminated products (e.g., structural beams) are increasing their share of markets once held exclusively by traditional solid-wood products, such as lumber and plywood, especially in the South. We believe that this trend will continue. Because these new products can be made from small, low-grade material and from underutilized species, this trend will affect the demand for stumpage by species, grade, and size. Determining silvicultural regimes using current prices may not result in the most efficient silvicultural regimes given that prices will likely change in the future.

To better select management regimes that reflect this changing future, procedures will be developed to better display the risk and uncertainty of traditional silvicultural regimes. In addition, silvicultural regimes will be designed that are flexible enough to accommodate adjustments to changes in costs and prices occurring after the initiation of the forest stand. Finally, the robustness of the silvicultural regimes will be evaluated with different species mixes and intensities of investment.

Private Forestry Investment

In the last RPA Assessment, it was assumed that forest industry land would be managed intensively in the future. This land was principally in the South. Management of nonindustrial private land was assumed to continue as indicated by recent trends. Since the 1989 Assessment, the financial structure of the timber industry has changed, including leveraged buy-outs,

takeovers, and structural shifts that may have affected both industrial and nonindustrial views of forestry investment.

For the 1993 Assessment Update, we will examine the factors that have influenced historical trends in the management intensity of private forest lands. In addition, we will provide projections of future management intensity.

Patterns of Species Endangerment

The number of threatened and endangered species continues to increase. More than 500 plant and animal species are currently protected by endangered species legislation, and the list is growing. In the South, the red cockaded woodpecker has received the most attention.

Our analysis will update the number and distribution of threatened and endangered species. We will also try to determine the distribution of species endangerment to land use and land cover patterns.

Non-Federal Wetlands Habitats

Wetlands are being converted to other land uses at an increasing rate. Approximately 460,000 acres (1,861,160 x 10^3 m^2) were lost from about 1954 to 1974.

In the 1993 RPA Assessment Update, we will determine the trends for non-Federal wetlands on a national, regional, and state basis. We will also examine land-use conversion resulting in loss of wetland area.

Land-Use Regulation of Private Forestry

State and local governments have enacted legislation to address perceived problems associated with the management of private timberlands. These legislative initiatives include forest practices acts, timber cutting ordinances, air and water quality protection statutes, and scenic river laws. To date, these kinds of regulations have not been enacted, to any large extent, in the South.

Our analysis will identify and describe those state and local regulatory policies that apply to private timberlands. Furthermore, we will estimate how these laws will influence timber supplies from private lands in both the short and long terms. Finally, we will assess how these projected changes in timber supplies will effect the timber markets.

Global Climate Change

Several ecological models examine forest disturbances on a large scale. These models, which describe the underlying biological processes in forested systems, need to be linked to economic models that describe timber consumption at the regional level and to associated timber inventory models.
In the 1993 RPA Assessment Update, we will compare the growth functions developed from environmental factors by tree species for large geographic regions. We will also compare projections of timber volume and biomass from both the timber inventory and ecological models.

CONCLUDING REMARKS

The issues described in this report will be analyzed in the 1993 RPA Assessment Update, which provides information on the supply and demand for the major commodity and noncommodity output from forest and rangelands in the United States. The results of these analyses will shed light on proposed policies and programs for the southern forests.