

*QUANTIFYING THE VALUE OF NON-TIMBER ECOSYSTEM
SERVICES FROM GEORGIA'S PRIVATE FORESTS*

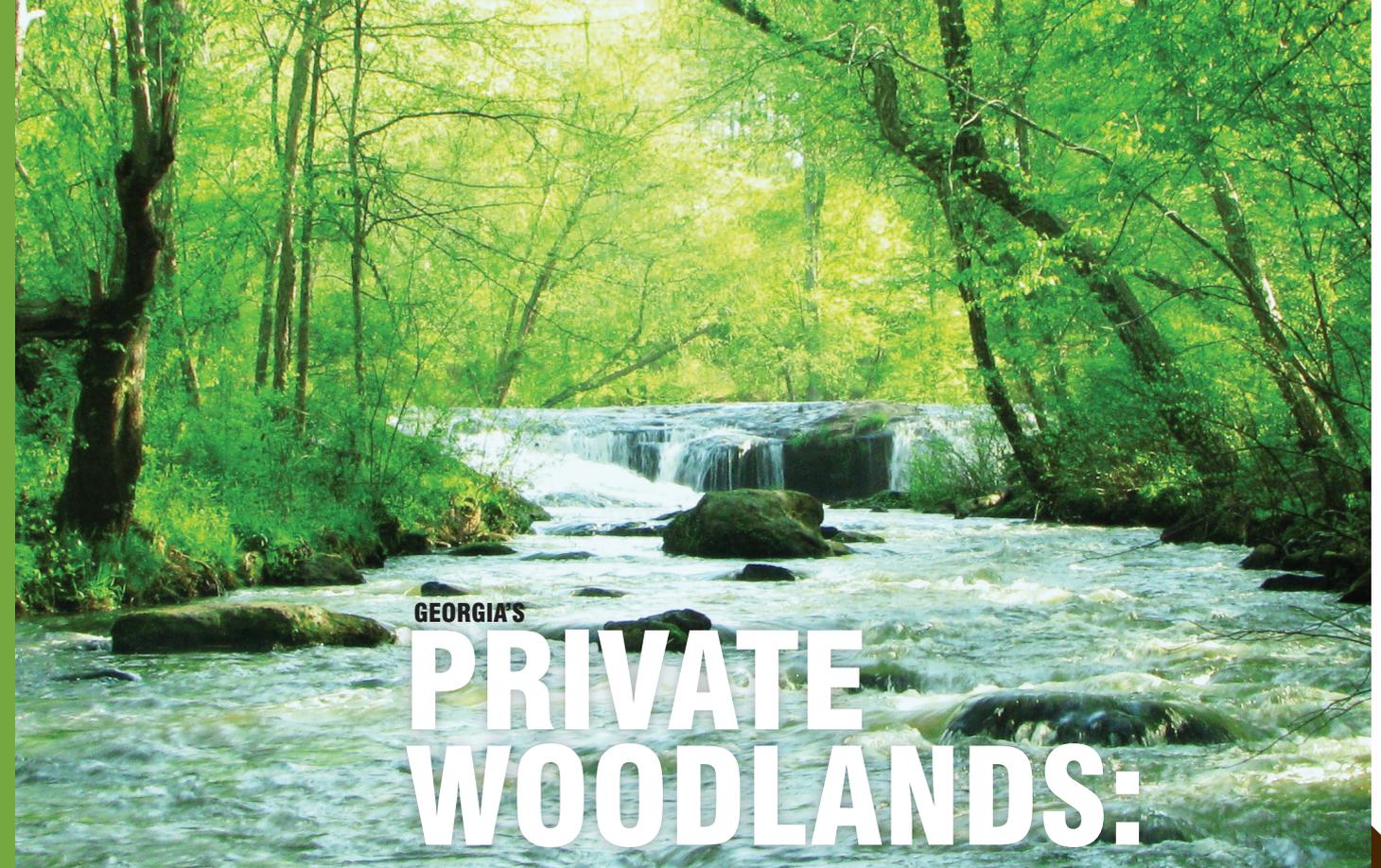
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GEORGIA'S
**PRIVATE
WOODLANDS:**



DELIVERING VALUE TO EVERY GEORGIAN // 2011



“Forestry needs champions in the public policy arena who understand the value of our forests and who are not willing to stand by and allow conditions to persist that place its numerous benefits at risk.”

WADE HALL, PRESIDENT, STUCKEY TIMBERLANDS & CHAIRMAN OF THE BOARD, GEORGIA FORESTRY FOUNDATION

HOW DO GEORGIANS VIEW THE WORKING FORESTS AND WOODLANDS THAT SURROUND THEM?

Like many Americans, Georgians tend to take their state’s forests for granted. Forestlands are often considered natural gifts, such as the sun and the clouds – beautiful sights that are timeless and steadfast. But Georgia’s working forests have not been here forever and they don’t take care of themselves.

So who tends the trees? Most Georgia forests are privately owned by ordinary citizens who provide truly extraordinary services. These stewards of the forest use their own resources to manage healthy forestland that benefits every Georgian. Their forests provide air to breathe, water to drink, beauty and recreation to enjoy – along with billions of dollars in economic impact to Georgia.

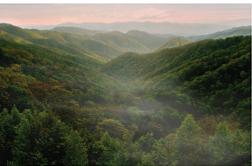
WHY IS IT IMPORTANT TO UNDERSTAND THE VALUE OF OUR PRIVATE WORKING FORESTS?

Ninety-two percent of Georgia's forests, which cover two-thirds of the land area of the state, are privately owned. Much of that land is owned by tens of thousands of private, non-industrial landowners whose stewardship serves to clean our water and air – and provide valuable wildlife habitat and outdoor recreation. It is not an overstatement to say that Georgia's economy depends in some large measure on the well-being of its forests.

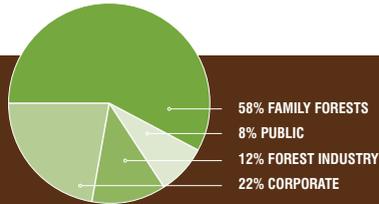
Georgia's private forest landowners must have sufficient economic incentive to harvest and sell trees if they are going to actively manage this precious natural resource that provides so much benefit to Georgians. Those forest landowners and forest industries face pressure today from growing global competition,

local property taxes not reflective of the actual use of the land, and sprawling urban and suburban development.

Without a better understanding of the economic and environmental underpinning that forests provide to our state, Georgia's public, private and non-governmental organization leaders are more likely to make policy decisions that do not support landowners keeping their land in forests to benefit all Georgians. At the heart of this understanding must be a clear picture of the complete value of the forests.



OWNERSHIP
OF GEORGIA
TIMBERLAND
(24 MILLION ACRES)



Forest Inventory and Analysis, US Forest Service 2008



“Open space and its supporting habitat is being lost at a rate of nearly 2,000 acres per day in the United States. Not only a pervasive problem, with roots in numerous subsequent and environmental social issues, the loss of open space actually depletes our capacity to deal with other environmental problems and diminishes opportunities for discovering new solutions.”

THE VALUE OF CONSERVATION EASEMENTS: THE IMPORTANCE OF PROTECTING NATURE AND OPEN SPACE. WEST HILL FOUNDATION FOR NATURE, DECEMBER 1, 2002



DELIVERS

ECOSYSTEM SERVICES AND ECOLOGICAL FUNCTIONS OF GEORGIA'S FORESTS **\$ 37.6 BILLION**

VALUE TO 9 MILLION CITIZENS

The impact of forest recreation and the forest products industry on Georgia's economy is tremendous. Forest products are used in thousands of common consumer items that improve our health and everyday lives. But beyond recreation and wood and fiber product manufacturing, what value do Georgia's working forests provide in water filtration, carbon storage, wildlife habitat, and scenic beauty?

A University of Georgia study completed in January 2011 conservatively estimates the value of the ecosystem services of Georgia's 22 million acres of privately owned forestland at more than \$37.6 billion per year.

The value of ecosystem services is difficult to quantify. The benefits of scenic beauty and habitat for endangered species, for example, are not easily captured. But beyond timber and forest products and recreation, the things nature provides that are of direct benefit to humans include:

- // greenhouse gas and climate regulation,
- // water quantity and quality,
- // soil formation and stability,
- // pollination,
- // habitat refugium, and
- // aesthetic and cultural values.

Why is this value – viewed together with the impact of forest recreation and the forest products industry – important? Decisions are being made today that will significantly impact the amount of land that remains in forest cover in the future. Wise land use decisions must take into account the total economic value of each land use option – including the value of ecosystem services. When the total economic value of forested land – including the value associated with timber production *and* the other ecosystem services provided – is compared to the total economic value of alternative land uses, more land is likely to remain in forest production, ensuring that forests provide Georgians with economic opportunity, revenue for government services and the benefits of ecosystem services.

If we want landowners to keep their land in forest production – providing ecosystem services to benefit Georgians and maintaining the state's competitiveness in domestic and global forest product markets – then we need public policy that does not drive these landowners toward non-forest land use options such as development.

For more than a century, Georgia's working forests have provided opportunity in new markets for trees, turning Georgia's most plentiful, renewable, natural resource – trees – into jobs and tax dollars, cleaning Georgia's air and water in the process.

Today, Georgia's forest product manufacturers annually inject \$28.2 billion into the state's economy.

Georgia's 22 million acres of timberland available for commercial use – more than any other state in the nation – employs 118,423 Georgians in 163 wood product manufacturing facilities, 1,200 secondary manufacturers, 1,200 logging contractors and another 200 vendors in the state's second largest industry. The manufacturing and manufacturing-related technical and research jobs are among the most sophisticated and highly compensated in the state. Thousands of Georgians are employed at trucking companies, railroads, the port and wholesalers and retailers whose roles are vital for moving Georgia's wood and fiber to market.

In fact, the top two export commodities from the Georgia Ports Authority's ports in Savannah and Brunswick are wood pulp and paper/paperboard, significantly outpacing the next largest export commodities – food, clay and chemicals *combined!*

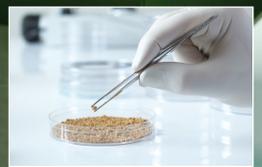
Georgia's forestry industry generates an estimated \$472 million per year in revenues for the state budget, including individual and corporate income taxes, sales and use taxes, highway taxes, fees, and miscellaneous revenues – supporting education, public health, safety and welfare, highways, administration, and more.

Over several generations, the forestry industry has turned trees into turpentine then lumber, poles, posts, panels – and today a diverse array of more than 5,000 forest products. And there is more on the horizon, for we are now seeing the beginning of the next emerging market for the forest. Georgia's timber harvests produce millions of green tons of logging residues annually. Much of this can be collected to produce bioenergy. The forest industry is already turning biomass from the forest floor and waste from forest product manufacturing into energy to more efficiently power its manufacturing facilities.

Georgia is a leader in the emerging bioenergy industry, ranking first in the nation in announced biomass energy projects. Georgia has more than \$2 billion worth of active renewable energy-related projects that are projected to drive nearly \$5 billion dollars into the state's economy over the next 10 years – and add an additional 2,000 jobs within the new facilities and forestry operations to support them by 2015.



GEORGIA'S WOOD AND FIBER PRODUCT MANUFACTURING DELIVERS **\$28.2 BILLION** ECONOMIC IMPACT



Georgia's working forests provide vast opportunity for recreation to the great benefit of Georgians and visitors to the state. Forests are important to hunters, anglers, birdwatchers, hikers, nature photographers, horseback riders, campers and others. The work by landowners to manage these forests includes, of course, water as a high priority, providing additional recreational opportunity such as canoeing and rafting. Without the state's abundance of working forests, Georgia would not be one of the leading sportsman's destinations in the country.

Georgia residents and visitors spend more than \$3 billion on wildlife recreation in the state.



DELIVERS
FOREST-RELATED
OUTDOOR
RECREATION **\$3 BILLION**
EXPENDITURES IN GEORGIA

"The private forests of Georgia hold incalculable value in the form of family and individual recreation. By far, most hunting opportunity is provided on private forest lands. When you add activities such as bird-watching, camping, hiking, etc., the human value of private forest lands in Georgia is simply without limit."

JERRY L. MCCOLLUM, PRESIDENT & CEO, GEORGIA WILDLIFE FEDERATION