

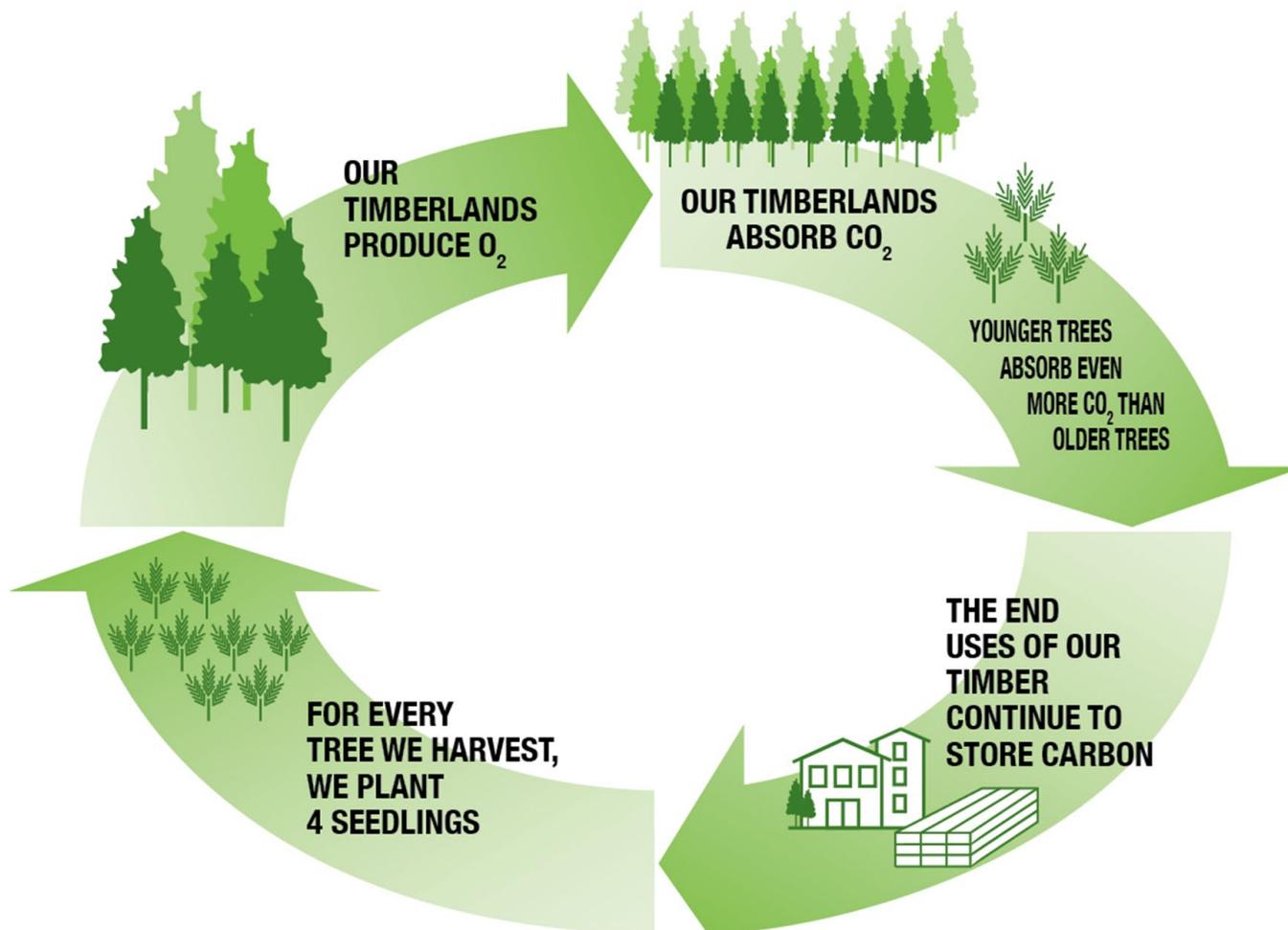


**CARBON
REPORT
2020**



November 2021

CATCHMRK'S FORESTS: A POSITIVE IMPACT TOWARDS CLIMATE SOLUTIONS



2020 CARBON REPORT



As part of our sustainability and ESG commitments, CatchMark continues to monitor climate change and evaluate impacts to our timberlands. In our evaluation of climate change, we consider the positive impact that forests have in capturing carbon, intercepting water, and stabilizing soils, thereby mitigating negative effects on the environment. Trees, through photosynthesis, absorb carbon and other pollutants, then produce pure oxygen into the atmosphere which helps counteract climate change.

CatchMark has completed this detailed impact analysis of carbon storage, carbon sequestration, and emissions associated with our timberlands operations in order to determine the overall net carbon impacts from our operations.

Acreage as of December 31, 2020¹

U.S. South

Alabama	69,200
Florida	500
Georgia	250,700
South Carolina	69,700
TOTAL²	390,100



CatchMark's net impact was calculated by totaling the amount of CO₂ sequestered by the growing forests in one year, plus the amount of carbon converted into forest products, less the total CO₂ emitted due to harvesting activity, company travel, vehicle usage and energy consumption.

The following estimates are detailed within this report³ for 2020:

- Total carbon stored by our timberlands
- Net carbon impact of forestry and corporate activities
 - Carbon sequestered by our timberlands
 - Emissions related to our business (Scope 1, 2 and 3)
 - Carbon emitted through harvest activity
- Carbon storage within forest products (harvest converted to product)
- Carbon storage within forest products over multiple harvest cycles



The following key terms are used and described in the context of this report:

Carbon Sequestration: The process by which carbon dioxide (CO₂) is converted into carbon (C) via photosynthesis.

Carbon Storage: Carbon stored within the wood, branches, leaves, needles, and roots of the tree once it has been converted from atmospheric CO₂ through the process of carbon sequestration.

Emissions: The release of carbon in the form of CO₂ to the atmosphere. For the purpose of calculating company emissions, the following emissions scopes under the EPA Greenhouse Gas Emissions were used:

- **Scope 1:** Direct emission sources: Purchased fuel for company vehicles and purchased quantities of commercial fuels (gallons).
- **Scope 2:** Indirect emission sources: Consumption of electricity by state (kWh).
- **Scope 3:** Indirect emission sources: Business travel by air and vehicle (miles), fuel consumption by contractor vehicles and equipment (gas, diesel, gallons).

Forest Products: Products derived from forest harvesting, i.e., lumber, plywood, veneer, chips, pellets, paper, etc.

MtCO₂e: Metric tons of carbon dioxide equivalent. Measure used to express the carbon dioxide equivalent for carbon. Derived by multiplying the tons of carbon by its associated Global Warming Potential (GWP) factor (3.667)⁴.

CARBON STORED IN OUR TIMBERLANDS



Carbon is stored within forest ecosystems at several levels. When accounting for the carbon stored within CatchMark’s forests⁵, the following carbon pools were included: live trees, standing dead trees, understory vegetation, down dead wood, forest floor (organic material on forest floor including woody debris), and soil.

The amount of carbon stored within a specific forest stand varies depending on the age, growth, species and management activities applied.

CARBON STORED IN OUR FORESTS ⁵ (MtCO ₂ e)			
Region	Forest	Soil	Total Ecosystem
U.S. South	23,619,312	20,072,933	43,692,245



NET CARBON SEQUESTRATION SUMMARY



The summary below defines the amount of carbon sequestered by our forests and by harvest converted into product after incorporating the company emissions and the carbon removed through harvest. This is defined as our *Net Carbon Impact*.

A positive *Net Carbon Impact* means that our forest lands and products post-harvest are removing more CO₂ from the atmosphere than our activities related to forest harvesting have emitted and therefore are helping combat climate change.

NET CARBON IMPACT (MtCO₂e/year)

Carbon Sequestered by Forests ⁴	858,219
Carbon Sequestered by Harvest Converted to Product ^{4, 5}	1,030,533
TOTAL CARBON SEQUESTERED	1,888,752
Carbon Emissions Through Forest Management	(24,151)
Carbon Emitted Through Harvest ⁶	(710,575)
TOTAL NET CARBON SEQUESTERED	1,154,025

TOTAL NET CARBON SEQUESTERED

1,154,025



CO₂ EMISSIONS FROM⁷:

More than **129.8M** gallons of gasoline consumed.



GREENHOUSE GAS EMISSIONS FROM⁷:

250,977 passenger vehicles driven for one year.



or

1.27M+ pounds of coal burned



2.9M miles driven by an average passenger vehicle.



CARBON SEQUESTERED BY CATCHMARK FORESTS



As trees and plants undergo photosynthesis, they convert CO₂ to carbon that is then stored within the stems, branches, roots, and needles of the forest. This is the process of carbon sequestration. In addition to storing carbon, the process of sequestration also results in the emission of oxygen back to the atmosphere.

Just as carbon storage within a forest stand varies depending on the species composition and age, so too does carbon sequestration. Carbon is sequestered in young, growing forests at a faster rate than older, mature stands. However, large, mature stands still sequester a larger amount of carbon due to generally having a higher biomass density.

CARBON SEQUESTERED IN 2020 (MtCO₂e)

U.S. South

858,219



CARBON STORAGE WITHIN FOREST PRODUCTS (HARVEST CONVERTED TO PRODUCT)



Once trees are harvested, some of the carbon continues to be stored within end-use products such as lumber, plywood wood pellets and paper.

The following analysis depicts the carbon that remains in forest products once the timber has been harvested. The amount of carbon that decreases as the years progress into the future represents the eventual decay or burning of forest products after their term of use and the resulting release of CO₂. The long-term carbon storage of wood products is one of the many benefits timber products have over other construction products such as steel or concrete.

The analysis was conducted by utilizing 2020 harvest volumes by product type and region.⁵

2020 HARVEST ACTIVITY: PROJECTED CARBON STORED IN FOREST PRODUCTS (metric tons of CO₂ equivalent)

	Carbon Stored in Harvested Products	Years in the Future					
		10	20	30	50	80	100
U.S. South	1,030,533	663,283	554,530	508,541	454,898	413,533	397,141

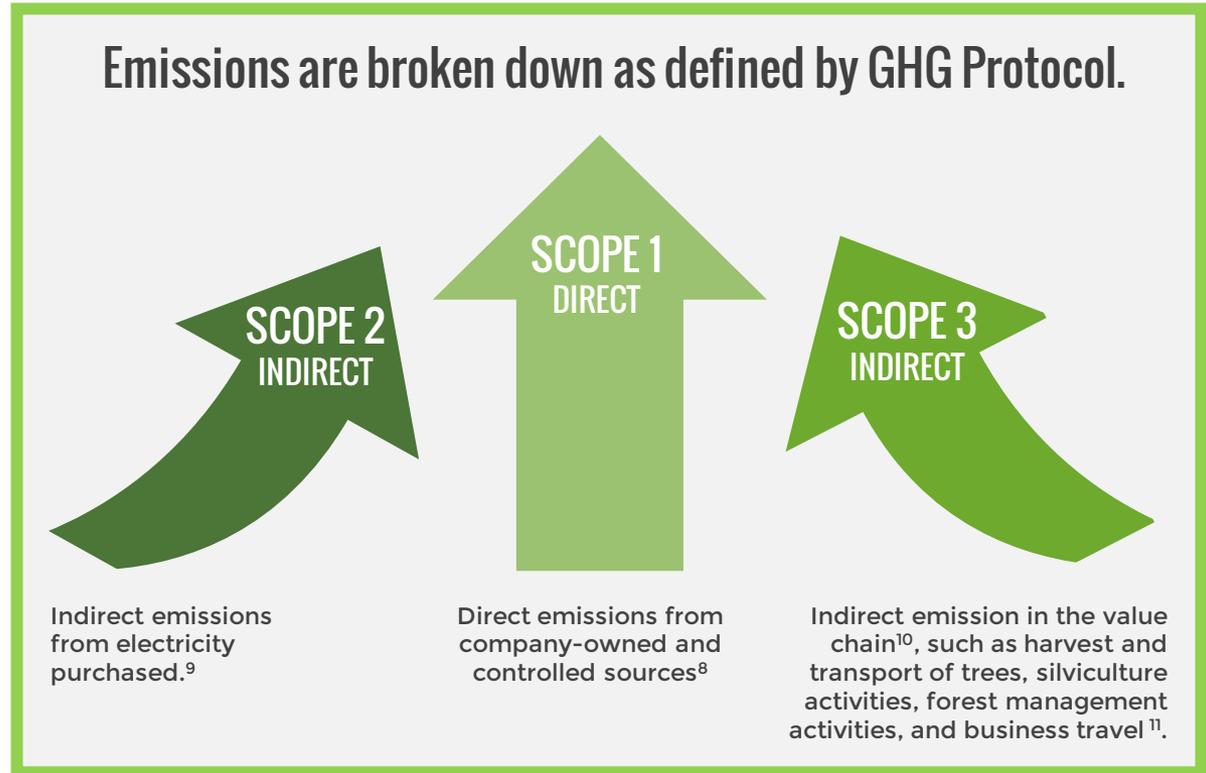


EMISSIONS ASSOCIATED WITH FOREST MANAGEMENT



In order to accurately calculate the net impact of CatchMark activities on the carbon cycle, the emissions associated with our forest management activities were assessed. The total emissions calculated is used to calculate the *Net Carbon Impact*.

U.S. SOUTH Carbon Emitted (MtCO ₂ e)	
Scope 1	3.3
Scope 2	165.8
Scope 3	23,982.2
Total:	24,151.3



CARBON EMITTED THROUGH HARVEST ACTIVITY



When trees are harvested from our forests, a small amount of carbon is immediately lost to the atmosphere just via the process of removing the trees from the stump. Other activities that cause carbon loss during harvesting include and breakage of stems/ branches, processing that occurs on site (de-limbing, debarking, processing) as well as the eventual decay of products left in the forest. Lastly, carbon is emitted to the atmosphere through the process of pile burning where applicable.

Estimates are based on actual harvest volumes for 2020.⁵ Volumes will fluctuate from year-to-year depending on several factors including, harvest intensity and age and species of trees harvested.

CARBON EMITTED THROUGH HARVEST⁴ (MtCO₂e)

U.S. South	710,575
------------	---------

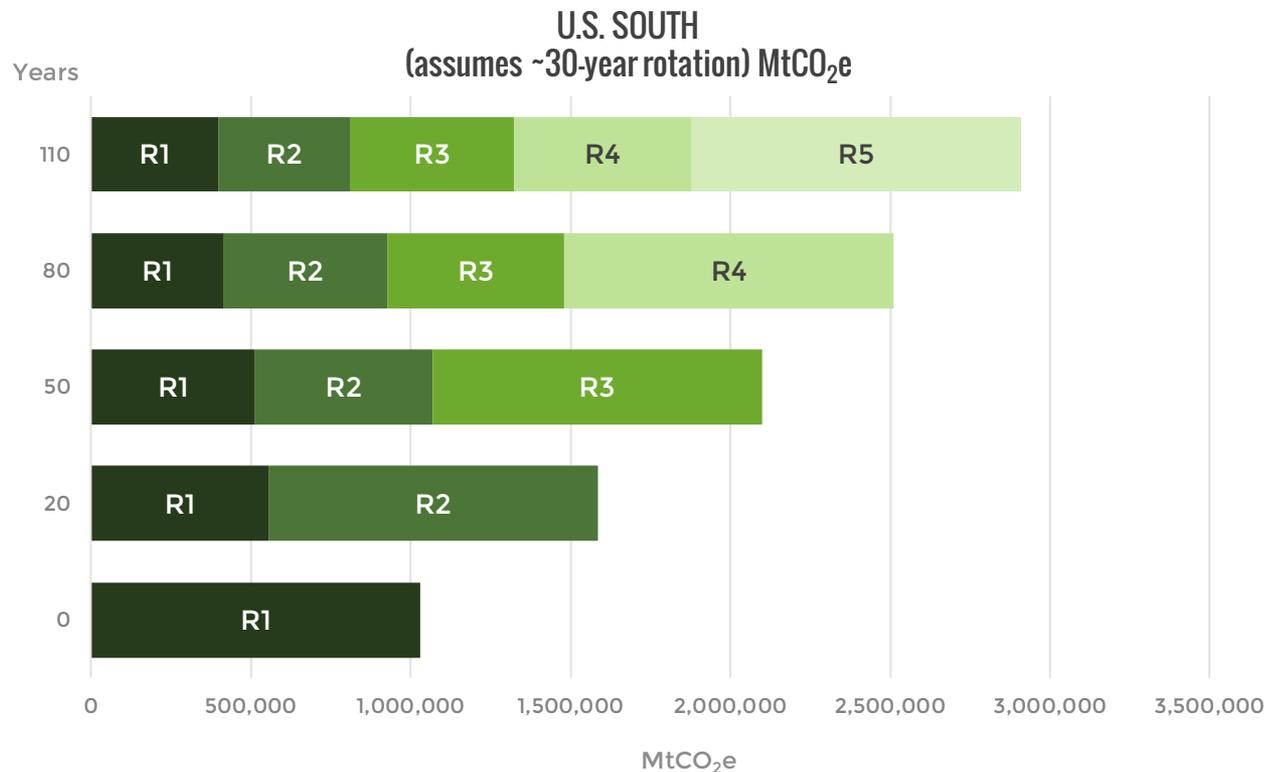


CARBON STORAGE OVER MULTIPLE CYCLES



Throughout multiple cycles of harvesting, the amount of carbon stored in the forest products generated will increase cumulatively over time. Although the amount of carbon stored that is generated from a single rotation will decrease over time, the addition of carbon storage within forest products from sequential rounds of harvesting will increase the overall storage of carbon.

The amount of carbon stored is calculated based on the International Panel on Climate Change's (IPCC) guidelines set out for forest products.¹² The rate of decay is based on the half-life for each product type.



All data as of 12/31/2020 except as otherwise noted.

1. This Carbon Report focuses on the acres owned in the U.S. South and does not include the any acreage in the Pacific Northwest or interests in property held through joint ventures, all of which have been sold as of the date of this report.
2. CatchMark owned acreage as of 12/31/2020 in the U.S. South.
3. All values were calculated to determine metric tons of Carbon and multiplied by the factor of 3.667 (International Panel of Climate Change (2006). Guidelines for National Greenhouse Gas Inventories. Vol. 4. Agriculture, Forestry and Other Land Use) to convert to metric tons of carbon dioxide equivalents (MtCO₂e)
4. International Panel of Climate Change (2006). Guidelines for National Greenhouse Gas Inventories. Vol. 4. Agriculture, Forestry and Other Land Use) to convert to metric tons of carbon dioxide equivalents (MtCO₂e)
5. Carbon stored in forest products was calculated from harvest depletion data obtained from CTT, utilizing the i-Tree Harvest Carbon Calculator online <https://harvest.itreetools.org/>
6. Calculated based on CatchMark's 382,554.55 acres of CTT forest land within the U.S., including Georgia, Alabama, Florida, and South Carolina. Areas reported are net acres and do not include non-productive stands.
7. Source: U.S. EPA Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>
8. Scope 1 direct emission sources: Purchased fuel for company vehicles and purchased quantities of commercial fuels (gallons).
9. Scope 2 Indirect emission sources: Consumption of electricity by state (kWh).
10. Scope 3 Indirect emission sources: Business travel by air and vehicle (miles), fuel consumption by contractor vehicles and equipment (gas, diesel, gallons).
11. Air travel was calculated based on UK Dept. for Business, Energy & Industrial Strategy Air Transport Emission Factor of 11.2 kgCO₂/vkm
12. 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Rep. No. Volume 4. Agriculture, Forestry and Other Land Use). (2006). Retrieved July 1, 2021, from Intergovernmental Panel on Climate Change website.

This report was completed in consultation with GreenRaise Consulting. GreenRaise Consulting GmbH (as a spin off of Zimmfor Management Services Ltd.) is a leading global specialist in the field of Greenhouse Gas (GHG) emission programs, management systems and third-party certification. www.green-raise.com; www.zimmfor.com