Carbon Report

Issued August 2021

OVERVIEW

Rayonier grows and manages an abundant and renewable resource that provides many benefits to society: *trees*

This uniquely positions Rayonier (NYSE: RYN) to offer natural climate change solutions. The trees we manage not only remove more carbon than we emit in our operations, but even after harvesting, help to store carbon through the wood-based products others create from our trees.

In our Carbon Report, we provide a snapshot of the total accumulated carbon stored in our forests at year-end 2020, as well as calculate an estimate of the carbon sequestered by our forests, emitted in our operations, and removed/transferred to our customers through harvest activity over the course of 2020. With respect to carbon removed/transferred through harvest activity, we have further estimated the longer-term storage benefits associated with the conversion of trees into end-use forest products.

WITHIN THIS REPORT, WE DISCLOSE OUR ESTIMATE OF:

- **Total carbon stored by our portfolio as of December 31, 2020**
- **Carbon sequestered by our forests during 2020**
- **Carbon emissions associated with our business (scope 1, 2 and 3)**
- **Carbon removed/transferred from our forests through 2020 harvest activity**
- **Projected carbon storage benefit of timber harvested and converted to forest products in 2020**
- **Carbon storage potential of forest products conversion over multiple harvest cycles**

CARBON STORED BY OUR PORTFOLIO

Forests play a critical role in the carbon cycle, using carbon not only for growth but storing it as well. When estimating the **carbon stored** in our forests, Rayonier includes overstory trees, understory vegetation, coarse woody debris, and forest floor, as well as the soil on our land.

The amount of carbon stored in Rayonier's trees varies considerably across the portfolio depending on species, growth conditions and age.

Carbon Stored in Rayonier Forests[1] at year-end 2020
Metric Tons of CO_2 Equivalents[2]

REGION	FOREST[5]	SOIL	TOTAL ECOSYSTEM
U.S.[3]	352,038,859	298,847,876	650,886,736
N.Z.[4]	53,582,478	52,289,342	105,871,820
TOTAL	**405,621,337**	**351,137,218**	**756,758,556**

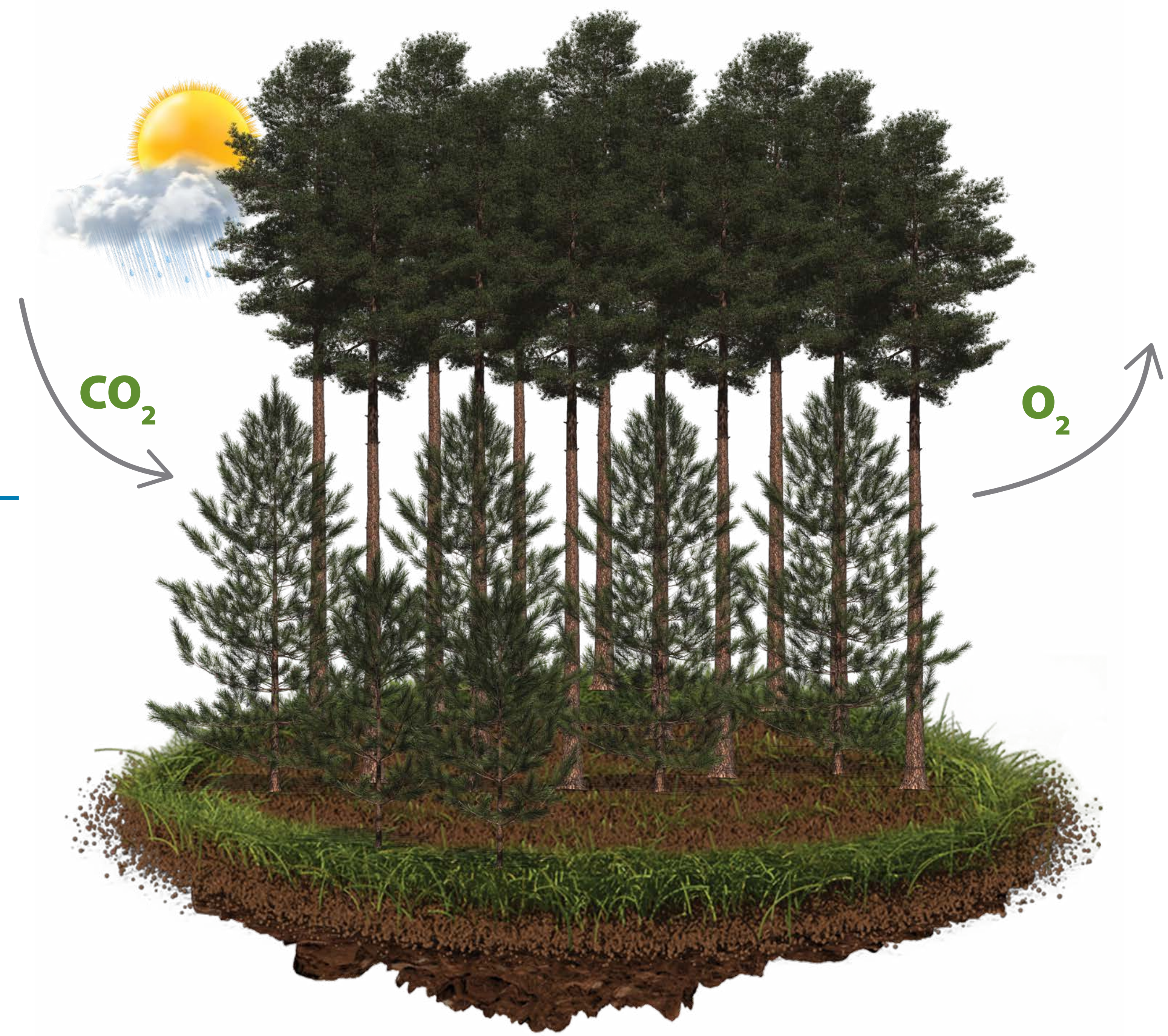
CARBON SEQUESTERED BY OUR FORESTS

Sustainably managed working forests provide many environmental benefits — including **carbon sequestration**. Through photosynthesis, trees absorb carbon dioxide (CO_2) and convert it to stems, branches, leaves/needles, and roots, while also emitting oxygen. Importantly, younger trees generally sequester carbon at a higher rate than mature trees.

CARBON SEQUESTERED[1] BY RAYONIER'S FORESTS DURING 2020

11,803,517 (U.S.)[3]
2,724,501 (N.Z.)[4]

14,528,018 $MtCO_2$-e



For context, the 14.5 million metric tons of CO_2 equivalents sequestered by our forests in 2020 is comparable to the annual carbon emissions of approximately 910,000 people in the United States, or taking approximately 3.1 million vehicles off the road annually.[8]

EMISSIONS ASSOCIATED WITH OUR BUSINESS

CARBON EMITTED[6] BY RAYONIER IN 2020 » **261,740 (U.S.) 118,494 (N.Z.) = 380,234 MtCO$_2$-e**

We have measured our impact on the environment by calculating the **emissions** associated with our corporate, forestry, and real estate-related operations during 2020.

We have estimated and broken down **scope 1** (direct emissions from company-owned and controlled resources), **scope 2** (indirect emissions from electricity purchased) and **scope 3** (indirect emissions in the value chain — i.e., harvest and transport of our trees, silviculture activities, forest management, and business travel).

Emissions were broken down in accordance with the EPA Greenhouse Gas Emissions scope 1, 2 and 3, and calculated based on the fuel consumed and CO_2 emissions from gas, diesel, and Jet A fuels. We have included the scope 3 emissions we believe are most relevant to our business and can be calculated based on the information available to us.

SCOPE 2
INDIRECT

ELECTRICITY
585 (U.S.) + 43 (N.Z.)
= 628 MtCO$_2$-e

SCOPE 1
DIRECT

COMPANY VEHICLES
136 (U.S.) + 421 (N.Z.)
= 557 MtCO$_2$-e

SCOPE 3
INDIRECT

COMMUNITY DEVELOPMENT
734 (U.S.) + 0 (N.Z.)
= 734 MtCO$_2$-e

HARVESTING
62,698 (U.S.) + 19,349 (N.Z.)
= 82,047 MtCO$_2$-e

ROAD CONSTRUCTION & MAINT.
11,316 (U.S.) + 5,162 (N.Z.)
= 16,478 MtCO$_2$-e

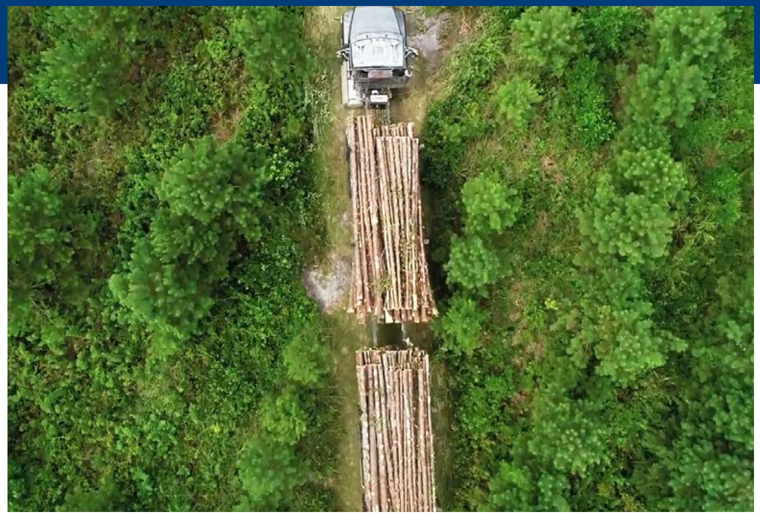
LOG TRUCKING
59,302 (U.S.) + 28,298 (N.Z.)
= 87,600 MtCO$_2$-e

OCEAN FREIGHT
76,028 (U.S.) + 64,163 (N.Z.)
= 140,191 MtCO$_2$-e

BUSINESS TRAVEL
1,049 (U.S.) + 146 (N.Z.)
= 1,195 MtCO$_2$-e

SILVICULTURE
49,892 (U.S.) + 912 (N.Z.)
= 50,804 MtCO$_2$-e

CARBON REMOVED/TRANSFERRED THROUGH HARVEST ACTIVITY



When we **harvest** our trees, we remove/transfer a portion of the carbon contained in our forests. After our trees are harvested, we then replant our forests and start the process of growing trees and sequestering carbon all over again.

CARBON REMOVED/ TRANSFERRED[7] THROUGH RAYONIER'S 2020 HARVEST ACTIVITY

7,626,367 (U.S.)[9]
1,577,703 (N.Z.)[10]

9,204,070 $MtCO_2$-e

Our estimates are based on Rayonier's actual harvest volume for the year and will fluctuate year-to-year depending on several factors, including the age and species of the trees harvested.

CARBON STORAGE BEYOND OUR FORESTS

The carbon storage benefits of Rayonier's forests continue even after trees are harvested, as carbon can remain sequestered for several decades within the end-use **forest products** produced from such trees, including lumber, plywood, and paper.

After trees are harvested, the cycle begins again — new trees are planted, absorbing carbon at a faster rate than the mature trees that they replaced — all while the harvested timber continues to store carbon within end-use forest products.

PROJECTED CARBON STORAGE BENEFIT OF HARVESTED TIMBER

We have estimated our 2020 harvest volumes by product and destination. This analysis shows the carbon that remains stored in end-use forest products well after the timber has left our forests.

Importantly, life cycle assessment studies have demonstrated the additional benefit of carbon storage in wood-based building products — fewer greenhouse gas emissions (in construction and in use) as compared to other building materials, such as concrete and steel.

2020 Harvest Activity: Projected Carbon Stored in End-Use Forest Products Over Time[11]

Metric Tons of CO_2 Equivalents[2]

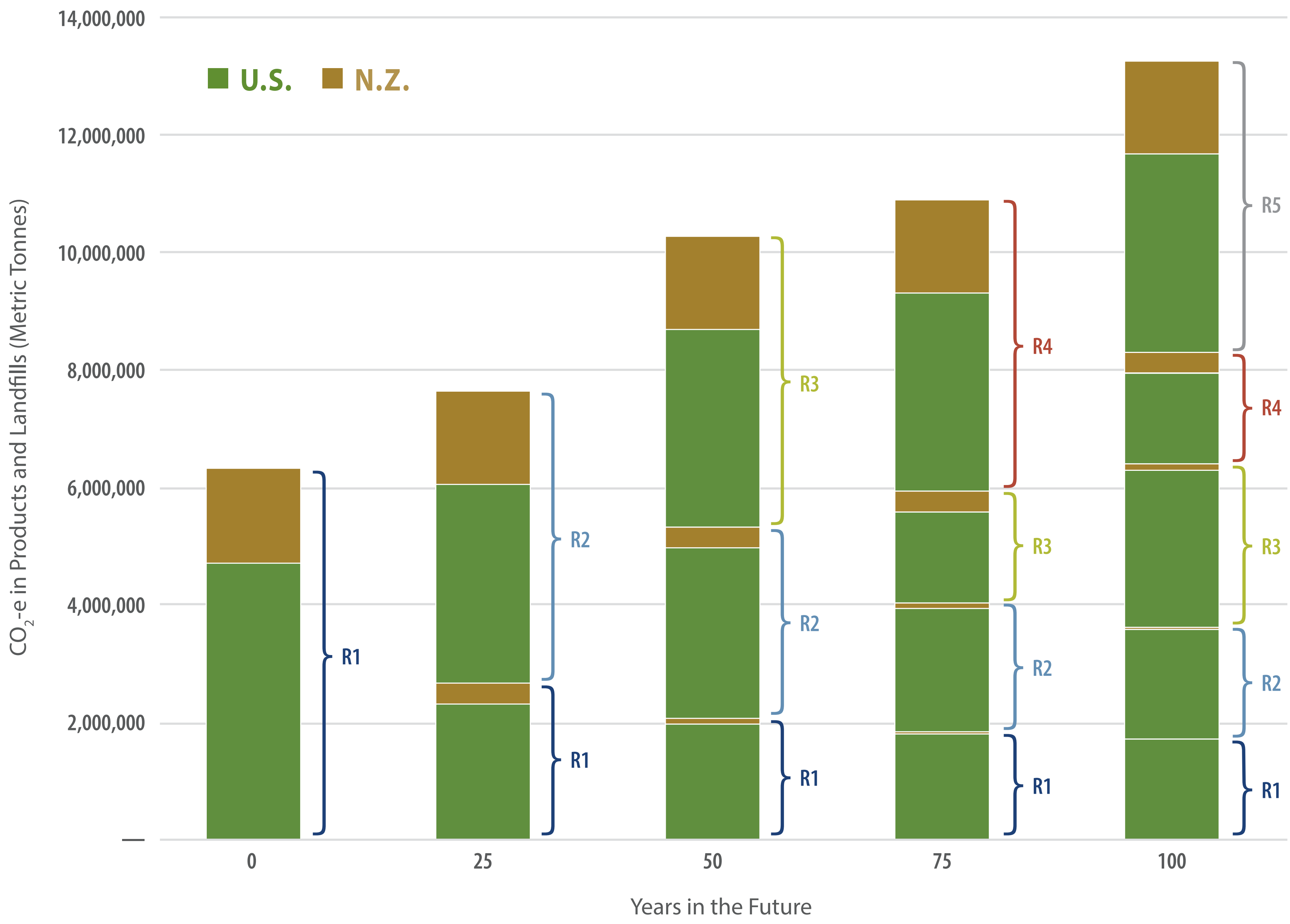
REGION	PRODUCT DESTINATION	CARBON REMOVED/ TRANSFERRED DURING 2020 HARVEST	2020 HARVEST CONVERTED TO PRODUCT[16]	YEARS IN THE FUTURE					
				5	10	25	50	75	100
U.S.	DOMESTIC[12]	7,283,565	4,407,968	3,435,415	2,873,120	2,294,314	1,970,627	1,814,597	1,723,002
U.S.	EXPORT[13]	342,802	312,303	149,981	80,908	24,255	6,493	2,284	858
N.Z.	DOMESTIC[14]	759,959	727,481	610,868	491,026	255,020	85,578	28,717	9,637
N.Z.	EXPORT[15]	817,744	752,171	538,409	354,493	101,180	12,519	1,549	192
TOTAL		9,204,070	6,199,923	4,734,673	3,799,547	2,674,769	2,075,217	1,847,147	1,733,689

CARBON STORAGE OVER MULTIPLE HARVEST CYCLES

The forest products derived from our timber can store carbon for an extended period of time — and over multiple harvest cycles, the net impact is an increase in the amount of carbon stored. The adjacent chart illustrates the positive impact actively managed working forests have on carbon storage over a 100-year time frame encompassing multiple rotations.

Carbon storage is estimated based on the half-life of the products produced from our timber as determined by the Intergovernmental Panel on Climate Change (IPCC). The difference in the estimated carbon storage benefits associated with the timber harvested from New Zealand and the United States is largely attributable to the half-life of the products in use in the different markets.

The adjacent chart assumes a 25-year rotation ("R") for southern pine in the U.S. and for radiata pine in New Zealand, and a 50-year rotation for southern hardwoods and Pacific Northwest species.



FOOTNOTES AND SOURCES

(1) Carbon sequestered and stored was calculated based on 2.2 million acres in the U.S. and 417,000 acres in New Zealand. Calculations do not include "look-through" acres in the Timber Funds business. Calculations based on hardwood and softwood forest types by age class for each of our regions: U.S. South, U.S. Pacific Northwest, and New Zealand. Our New Zealand calculations reflect a fully consolidated estimate, although Rayonier owns only a 77% interest in this entity.

(2) $MtCO_2$-e = metric tons CO_2 equivalent using the EPA Greenhouse Gases Equivalencies Calculator—Calculations and References. https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

(3) U.S. carbon sequestered and stored was calculated using carbon yield tables (metric tons/hectares) developed by the USDA Forest Service in *"Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types in the United States—GTR NE-343."* https://www.nrs.fs.fed.us/pubs/gtr/ne_gtr343.pdf

(4) N.Z. carbon sequestered and stored was calculated using regional default carbon yield tables (CO_2 –e/ha) developed by the N.Z. Ministry for Primary Industries and used as the basis of calculating carbon sequestration and emission liabilities under N.Z.'s Emission Trading Scheme (https://www.teururakau.govt.nz/dmsdocument/4762-A-guide-to-Look-up-Tables-for-Forestry-in-the-Emissions-Trading-Scheme). Estimates include both productive and non-productive areas. Estimates of carbon in non-productive areas were derived through the application of the methodology outlined in N.W.H. Mason, F.E. Carswell, J.McC. Overton, C.M. Briggs and G.M.J. Hall, February 2012. *"Estimation of current and potential carbon stocks and Kyoto-compliant carbon gain on conservation land."* Department of Conservation Te Papa Awawhai. https://www.doc.govt.nz/globalassets/documents/science-and-technical/sfc317.pdf

Note: The estimate of gross carbon sequestered in N.Z. during 2019 included carbon obtained through acquisitions during the year (comprising 1,366 ha, or 723,681 tCO_2-e). For 2020 and going forward, acquisitions are not included in annual carbon sequestered but instead reflected in year-end carbon stored.

(5) Represents overstory trees, understory vegetation, coarse woody debris, and forest floor.

(6) Carbon emissions in 2020 reflect the fuel emitted from company vehicles (Scope 1 Direct), purchased electricity from the Rayonier corporate headquarters along with our field offices (Scope 2 Indirect), and fuel associated with our real estate activities, harvest machinery, road construction/maintenance, log trucking, ocean freight, silviculture (site preparation, planting, weed control, fertilization, and pre-commercial thinning), and business travel and commuting miles (Scope 3 Indirect). Emissions were broken down in accordance with the EPA Greenhouse Gas Emissions Scope 1, 2, and 3, and calculated based on the fuel consumed and CO_2 emissions from gas, diesel, and Jet A fuels.

(7) Carbon removed/transferred in harvested timber was calculated based on Rayonier's 2020 harvest volumes in each of our regions, U.S. South, U.S. Pacific Northwest, and New Zealand, as reported on our 2020 Form 10-K.

(8) Per capita and vehicle CO_2 emissions calculated based on conversions provided by the EPA. Inventory of U.S. Greenhouse Gas Emissions and Sinks. 1990-2018. U.S. Environmental Protection Agency, EPA 430-R-20-002. https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf

(9) Carbon removed/transferred in U.S. harvested timber was calculated based on conversion of harvest volume green weight to oven dry weight using data in the U.S. Forest publication *"Specific Gravity and Other Properties of Wood and Bark for 156 Tree Species Found in North America – RN NRS-38."* Carbon content of the oven dry wood was calculated using the EPA Greenhouse Gases Equivalencies Calculator—Calculations and References. https://www.nrs.fs.fed.us/pubs/rn/rn_nrs38.pdf and https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

(10) Carbon removed/transferred in N.Z. harvested timber was based on the methodology reported by Manley and Evison (2017) in *"Quantifying the carbon in harvested wood products from logs exported from New Zealand."* https://ir.canterbury.ac.nz/handle/10092/16312

(11) Carbon stored in harvested forest products was calculated based on Rayonier's 2020 harvest volumes within each of our regions, U.S. South, U.S. Pacific Northwest, and New Zealand, then sorted by product type and destination with half-life assumptions.

(12) Carbon stored in U.S. harvested forest products for domestic use, including carbon stored in landfills, was calculated based on the USDA Forest Service publication *"Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types in the United States—GTR NE-343."* https://www.nrs.fs.fed.us/pubs/gtr/ne_gtr343.pdf

(13) Carbon stored in U.S. harvested forest products for export use was based on the half-life of forest products from logs exported to China, India, and Korea as reported by Manley and Evison (2017) in *"Quantifying the carbon in harvested wood products from logs exported from New Zealand."* https://ir.canterbury.ac.nz/handle/10092/16312

(14) Carbon stored in N.Z. harvested forest products for domestic use was based on the IPCC harvested forest products categories and half-life methodology as outlined by Wakelin et al (2020) *"Estimating New Zealand's harvested wood products carbon stocks and stock changes."* https://link.springer.com/article/10.1186/s13021-020-00144-5#citeas

(15) Carbon stored in N.Z. harvested forest products for export use was based on the half-life of forest products from logs exported to China, India, and Korea as reported by Manley and Evison (2017) in *"Quantifying the carbon in harvested wood products from logs exported from New Zealand."* https://ir.canterbury.ac.nz/handle/10092/16312

(16) Calculated to assume decay of carbon once converted into various forest products.