



A Manulife Investment Management Company

Investing *Beyond* Tomorrow

2019 Report on Sustainability
and Responsible Investing

Message from our *Chief Executive Officer*



Welcome to our second annual report on Sustainability and Responsible Investing.

At the beginning of this new decade, our world is faced with significant challenges. We're running out of time to decarbonize the global economy, species are going extinct at the highest rate in human history, and socioeconomic inequalities are fragmenting society. And now the coronavirus pandemic has highlighted how a seemingly limited, regional issue can rapidly transform into an unprecedented global crisis. To address these challenges appropriately, we need concerted global action on an extraordinary scale.

Fortunately, positive momentum is building. Average citizens and asset owners alike are increasingly vocal about the need for companies to create value, not only for shareholders but for all stakeholders. The expansion of impact investing, as well as the recognition that fulfilling fiduciary duty encompasses considering material non-financial factors, are major steps in the right direction. Following closely behind is the effort to standardize impact measurement and harmonize reporting frameworks, which will help streamline the comparison of investment opportunities that have different environmental and social impacts. I am

both humbled by the size of the challenge ahead and yet encouraged by the actions undertaken thus far.

Most importantly, I am energized by HNRG's role in a more sustainable future. As the world's largest timberland investment manager and one of the largest farmland investment managers, we have an opportunity to contribute to solutions for all of these global challenges. Both HNRG businesses are significant carbon sinks, focus on protecting and enhancing biodiversity, and bring rewarding employment opportunities to rural communities. If that were not enough, research is increasingly focusing on the role of maintaining healthy forests and preserving wildlife habitat in limiting outbreaks of new and emerging diseases.

I am also heartened by the knowledge that we are not just producing food and fiber sustainably, but that the very products we produce are good for society—low-carbon building materials (wood), healthy nuts, and fresh produce.

We want the world to be a place where our children and grandchildren can thrive, and we're doing everything we can to make this vision viable. Good stewardship is good business, and that's never been more important than it is now.

Sincerely,

A handwritten signature in black ink that reads "W.E. Peressini". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Bill Peressini
President and Chief Executive Officer





HNRG *creates*
value through
the *sustainable*
management of
natural resource
investments.

Front/Back cover:

**Pumicestone Passage,
Queensland, Australia**

HQPlantations Beerburrum Plantation is located on both sides of the Pumicestone Passage, a Ramsar-protected wetland and one of the most important bird and marine habitats on the east coast of Australia.

Photo courtesy of
HQPlantations.

Left/Opposite:

**Pool reflection at Toolara,
Queensland, Australia**

Most of the estate is open to the public. Its vast road network supports both forest management and recreation, including four-wheel driving and mountain biking.

Photo courtesy of
HQPlantations.

Message from our *Chief Sustainability Officer*



It's been a fruitful year at HNRG, and I'm delighted to share with you our second annual report on Sustainability and Responsible Investing.

This year was the culmination of a multi-year effort to help launch a sustainable agriculture standard. After two years of working collaboratively with many of our colleagues throughout the agriculture sector, we have developed a performance-based, industry-wide sustainability standard for agriculture. In November, the formation of Leading Harvest was announced—an independent non-profit organization that will govern and maintain the new Farmland Management Standard.

As Bill referenced above, both our forests and farms are substantial carbon sinks. As a fully integrated investment and property manager, most of our sustainability opportunities and impacts derive from our forests and farms. But we believe that culture and “walking the talk” are extremely important. That's why you'll see our mission and vision woven throughout this report, and it's also why—even though the size of the carbon sinks we manage dwarfs the extent of our corporate emissions—we decided to offset our 2018 emissions last year by planting trees with The Conservation Fund at Upper Ouachita National Wildlife Refuge in Louisiana.

If you've visited our website, you may have noted some of our contributions to the Sustainable Development

Goals (SDGs). The healthy nutritious food and low-carbon renewable building materials that we produce contribute to sustainable development, but so does the way we produce them. Our five SRI priorities—Climate Stability, Ecosystem Resiliency, Watershed Protection, People Empowerment, and Community Prosperity—are integrated throughout our business, from our investment process to our property management and our corporate operations. These priorities are critical for good stewardship of forests and farms, and you'll see them aligned with the SDGs throughout this report.

Finally, amidst the backdrop of the coronavirus pandemic, I'd be remiss if I didn't highlight how important it is to maintain healthy forests for preserving biodiversity. Forests are home to about 80% of the world's terrestrial biodiversity, and deforestation—which drives animals out of their habitat and into closer contact with human populations—has been linked to over 30% of the outbreaks of new and emerging diseases.^{1,2} Having signed our own zero-deforestation commitment in 2019, we will continue to strive to preserve forests and all their benefits, including and perhaps even especially because of those most difficult to quantify.

As we enter the new decade, it's a privilege to have business priorities so closely aligned with the sustainability vision of the global community. Thank you for your interest in Sustainability and Responsible Investing.

Sincerely,

A handwritten signature in black ink that reads "Brian J. Kernohan". The signature is fluid and cursive, with a long horizontal line extending from the end.

Brian Kernohan
Chief Sustainability Officer





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All data presented is sourced from HNRG as of December 31, 2019 unless otherwise indicated.

All monetary figures in USD. AUM shown in fair market value.

Cranberry freezer in Plessisville, Quebec, Canada

Our freezer facility uses CO₂ instead of more commonly used refrigerants such as ammonia, freon, or HFCs. While CO₂ is more expensive initially, it's much safer, and it is significantly less harmful to the ozone.

Photo courtesy of Christine Simmons

HNRG at a *glance*

\$14.1 B

total AUM

\$10.5 B

AUM, Hancock Timber
Resource Group

\$3.6 B

AUM, Hancock Agricultural
Investment Group

5.4 M

acres of timberland globally

470 K

acres of farmland globally

About HNRG

Our purpose

Hancock Natural Resource Group (HNRG), a Manulife Investment Management (Manulife IM) company, exists to make lives better through stewardship of people and the environment. Founded in 1985 and with our headquarters in Boston, HNRG is one of the largest natural resource asset managers for institutional investors. We manage over 5.4 million acres of timberland and nearly 470,000 acres of farmland globally, with approximately \$14.1 billion in assets under management.

Our foundational principle

HNRG was founded on the simple principle that good stewardship is good business. As stewards, we care for what has been entrusted to us, whether that means people (our employees and their families, contractors with whom we work, and communities in which we operate), planet (the environment, air, soil, water, plants and animals, farms and forests), or the investments we manage and their beneficiaries.

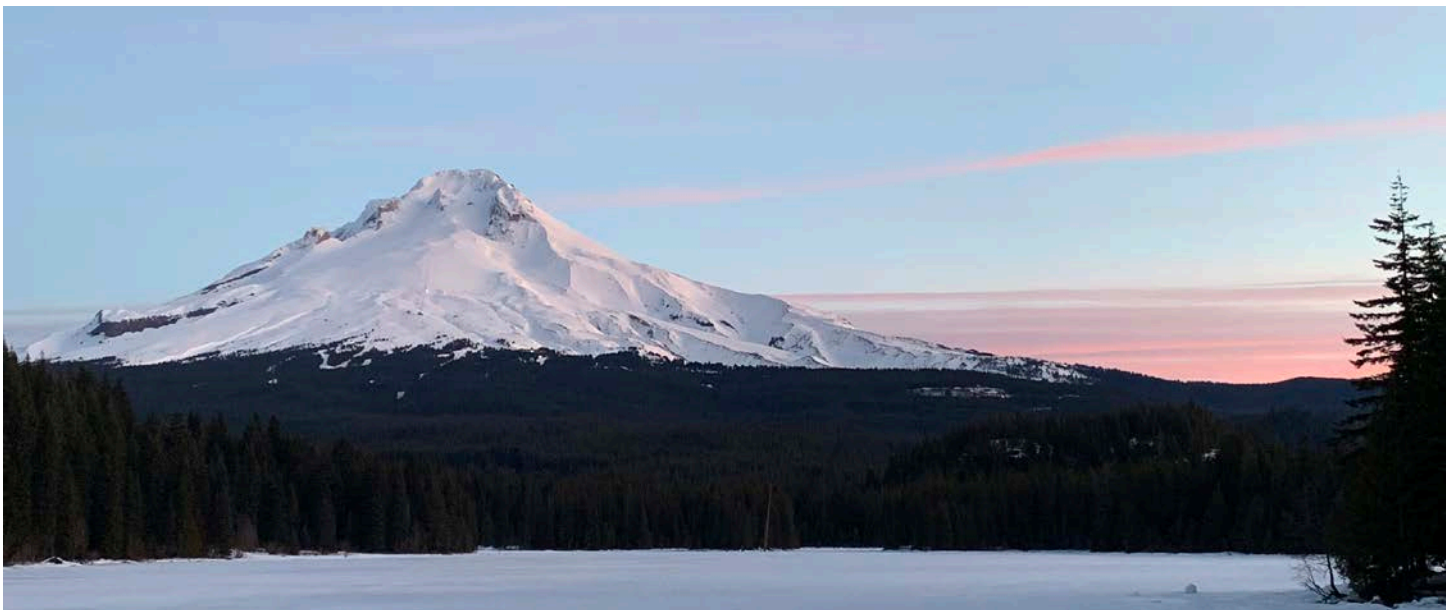
Our mission

Our mission is to create value through the sustainable management of natural resource investments. Creating value is broader than economic value alone—it also encompasses environmental and social values that in many ways underpin economic value itself. That's why, whether in the United States, Canada, Australia, New Zealand, or Chile, we operate our farms and forests sustainably: we are meeting today's food and fiber needs while also preserving the ability of future generations to meet their needs.

Our values

Our values are the set of common commitments that define us and enable us to operate according to our foundational principle, fulfill our purpose, and achieve our mission statement. These are the seven behaviors we want to count on from each other, no matter where we are located or what role we have: Protect our people from harm. Consider clients first. Do the right thing (even when no one is looking). Think big. Get it done together. Own it. Share your humanity.

Mt. Hood in Oregon, USA | Mt. Hood is visible from many high spots on our properties. Photo courtesy of Jenniffer Bakke



Our Assets Under Management

| | USA & Canada | Chile | Australia | New Zealand |
|---------|--------------------------|-----------------------|-------------------------|------------------------|
| Forests | 3.26 M acres (1.32 M ha) | 180 K acres (73 K ha) | 1.41 M acres (571 K ha) | 566 K acres (229 K ha) |
| Farms | 361 K acres (146 K ha) | – | 108 K acres (44 K ha) | – |



Source: HNRG. Maps show different scales.

Forests
 Farms
 Forests + Farms

Cranberry harvest in Plessisville, Quebec, Canada | Water is recycled throughout the cranberry bog by drainage systems and pumps. Photo courtesy of Hugues Rinfret



About our *report*

Last year we released our inaugural report on Sustainability and Responsible Investing (SRI), the commitment we began over two decades ago to sustainably produce food and fiber in a way that contributes to society beyond our own financial performance. Last year's report discussed how we are Investing Beyond Today.

As we enter a new decade, it's increasingly clear that the challenges and opportunities our world faces are complex. They defy short-term thinking and easy solutions. What we need now is long- and ultra-long-term thinking. Indeed, sustainability requires thinking in timescales of generations. That's why this, our sequel SRI report, is about Investing Beyond Tomorrow. The report provides an overview of HNRG's approach to SRI and an update on our progress and achievements in 2019. The time period reflected in this report is January 1, 2019 to December 31, 2019, unless otherwise noted.

What's new this year? Though our mission, purpose, values, and business have not changed in the past year, we accelerated our SRI activities in 2019, and Investing Beyond Tomorrow reflects these progressive efforts. Some of the new items we're excited to share with you in this year's report include:

Our food and fiber

We produce food and fiber sustainably, but we also produce food and fiber that are sustainable. In other words, the consumption of those forest and agricultural products we produce is good for both people and planet. This year's report introduces a discussion of how our core products contribute to a sustainable society.

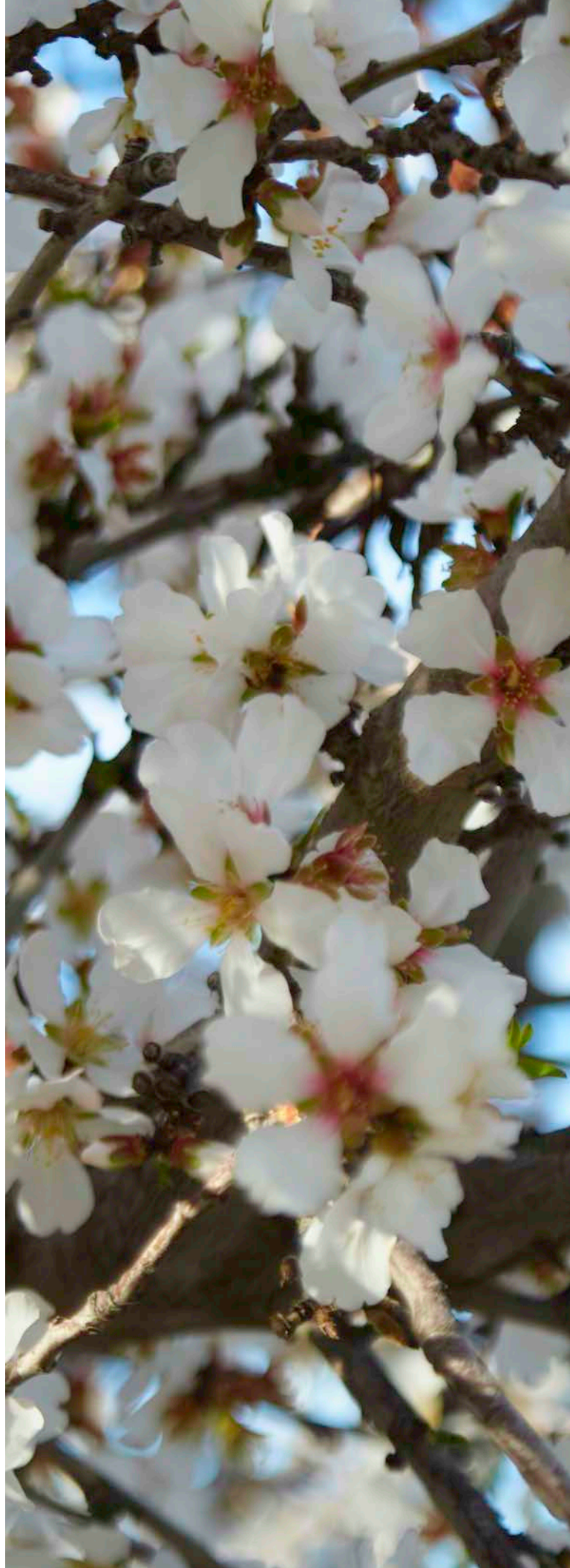
Our alignment with external standards

Our SRI strategy is deliberately focused on issues that are material to our business. The strategy is organic, from within, rather than structured around external standards. We also believe, however, that it's the responsibility of every business—including ours—to demonstrate how this approach positively contributes to global goals. So, in this report, we present our SRI performance metrics in line with third-party sustainability standards governing forestry and agriculture, the Sustainable Development Goals (SDGs), and the Impact Reporting and Investment Standards (IRIS+) maintained by the Global Impact Investing Network (GIIN).

Our employee photography

Every photo in this report was taken by an employee or contractor on or near properties we manage, and reflects two core company values—"Own it" and "Share your humanity." We know that managing living systems on behalf of our clients and future generations is a substantial responsibility as well as a great privilege. We take tremendous pride in our work, and we've decided to share some of that passion with you.

Almond orchard in bloom in California, USA. | Photo submitted by Traci Maselli.



Sustainable food and fiber

Responding to global challenges

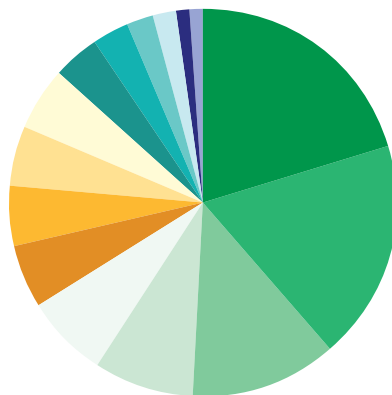
Our business directly affects three of the greatest challenges facing our world over the next decade: climate change, rapidly declining biodiversity, and rising socioeconomic inequality. We strive to play our part—and more—in confronting these global challenges, believing that long-term investments in forestry and agriculture, and the rural communities that support them, are critical to addressing them. It's for this reason that we focus both on how we produce food and fiber—sustainably—as well as on what we produce—sustainable food and fiber.

Sustainable food



The global food system has no doubt contributed to some of the challenges our world is facing. Agriculture has been linked to deforestation, climate change, water scarcity, and declining biodiversity. Yet with the world population expected to reach nearly 10 billion by 2050, we will likely need more agriculture, not less. To feed this growing population, agriculture must enhance rather than erode the natural environment, and it must produce nutritious foods that promote health and vitality. We are committed to producing these types of foods and doing so sustainably, committing to zero-deforestation. Nearly half of our agriculture portfolio consists of nutritious, low-carbon protein (nuts), while most of the other half comprises fresh fruits and vegetables.

Our global agricultural portfolio*



| | | |
|-------------------|----------------|-------------------|
| 20% Almonds | 5% Cotton | 2% Vegetables |
| 18% Pistachios | 5% Potato | 2% Wheat |
| 12% Corn/Soybeans | 5% Apples | 1% Farmland Plus |
| 8% Grapes (Wine) | 4% Walnuts | 1% Grapes (Table) |
| 7% Rice | 3% Cranberries | < 1% Peanuts |
| 5% Corn | 2% Alfalfa | < 1% Other |

*Source: HNRG. Percentages are crop value / total portfolio value. Totals may not sum due to rounding.

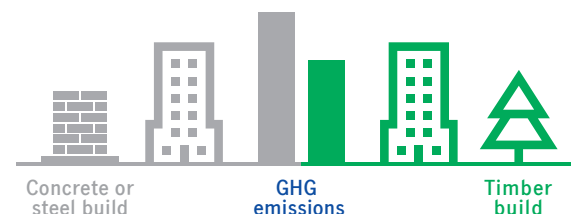
Sustainable fiber



Wood is the only renewable structural building material that can be deployed at scale, with sustainable forestry essential to its production.

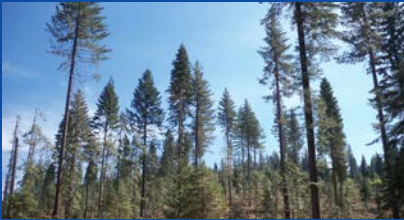
Building with timber can reduce GHG emissions by between 25% and 38% compared to building with concrete or steel.³ First of all, trees are a carbon sink and secondly, timber is lighter and therefore less emissions-intensive to transport. As people increasingly appreciate the aesthetics of wood construction and its biophilic effects, and as technology allows mass timber construction of taller buildings, we expect demand for wood as a sustainable building material will only grow—in fact, the World Bank forecasts that by 2050 global timber demand will quadruple. Last year, we produced enough wood to build more than 112,000 houses, and as the world's largest timber investment manager, we play an important role in the sector.

GHG emissions can be reduced by between **25%** and **38%** when building with timber—compared to building with concrete or steel



Our *SRI* priorities

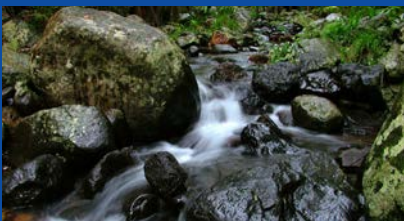
Climate stability



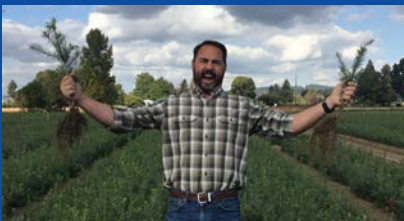
Ecosystem resiliency



Watershed protection



People empowerment



Community prosperity



Final Sweep at the Attis Farm in South Australia, Australia | An almond row in the final stages of harvest after being shaken, swept, and made ready for a clean pick-up free of contaminants. Photo courtesy of Darren Sargood

Our approach to *sustainability* and *responsible* investing

Materiality

Our approach to SRI is grounded in the principle of materiality: a focus on the sustainability issues that most significantly affect our business. In 2018, we commissioned a third-party materiality assessment to identify the environmental, social, and governance (ESG) factors that are most important and that may be financially material to our business. The assessment singled out over 70 potentially material issues, which we further refined into 20. We then defined five thematic priorities that encompassed all of them: Climate Stability, Ecosystem Resiliency, Watershed Protection, People Empowerment, and Community Prosperity. These five material priorities form the basis for what we call Sustainability and Responsible Investing (SRI) and guide every aspect of our business, from our governance to our investment processes and property management.

Governance

Accountability for SRI lies with our Executive Team, the most senior decision-making body in the company. As a member of the Executive Team, our Chief Sustainability Officer oversees implementation of SRI in matters of investment, operations, and policy, and SRI issues are further informed by sustainability working groups within HNRG and Manulife. Last year, the Executive Team adopted a formal zero-deforestation policy, committing not to clear native forests or acquire any land on which native forests have been cleared since regional cut-off dates agreed upon by international best practices. In future years, we plan to begin reporting in line with the Task Force on Climate-related Financial Disclosures (TCFD).

Thematic Investing: SRI in the investment process

As a thematic investment manager, we ensure that our investments in forests and farms help achieve important environmental and social objectives, while also offering market rates of return. But SRI affects not only how we manage properties in which we invest; it also guides our investment processes, screening, and underwriting. Sometimes this restricts our investment universe—for example, our zero-deforestation commitment makes agriculture in certain parts of Brazil off limits—while at other times, SRI expands our investment universe. Land produces value beyond food and fiber, and we actively seek ways to invest in value-added services such as ecosystem services, carbon offsets, renewable energy, and recreation leases for our clients and other stakeholders.

In acquisition due diligence, we adhere to the United Nations Principles for Responsible Investment (UN PRI) and the International Finance Corporation’s (IFC) Equator Principles. We also conduct comprehensive environmental, biological, and social reviews of all targets and require all reviews to highlight variance from U.S. standards, even when the relevant local standards are less stringent. Approval to proceed with investments from our Natural Resource Investment Committee must include consideration of all relevant SRI issues.



*For illustrative purposes only. This diagram is a variation of Sonen Capital's adaptation of Bridges Venture (2012) "Sustainable & Impact Investment: How we define the market."

Sustainability Certification: SRI in property management

SRI is also fundamental to our property management. Our forest and farm managers integrate SRI priorities into our operations by implementing stewardship principles that are aligned with third-party sustainability certification standards. We have been a pioneer in forest certification, and we were the first timberland investment manager to have our holdings throughout North America certified as meeting the Sustainable Forestry Initiative® (SFI®) Standard. We continue to manage all eligible investments in North America to SFI; in Australia, New Zealand and Chile, all qualifying investments are Forest Stewardship Council® (FSC®) certified, and many are dual certified where standards endorsed by the Programme for the Endorsement of Forest Certification (PEFC) schemes exist.

This year, after two years of working collaboratively with many of our colleagues throughout the agriculture sector, we have developed a performance-based, industry-wide sustainability standard and third-party certification program for agriculture, known as Leading Harvest. We are committed to enrolling eligible properties in the program. All of these sustainability standards are comprehensive and well-aligned with global impact reporting standards (see Sustainability Dashboard).





Nelder research trial in Toolara, Queensland, Australia | A Nelder wheel allows testing of multiple tree densities in a single plot. Each 'spoke' in the Nelder wheel in Toolara plantation represents a different genetic family and each ring allows for different spacing to provide a genetic comparison and determine optimal genetics and spatial design. Photo courtesy of HQPlantations

Climate *stability*

Why it's important

Global temperatures are already on average 1°C above pre-industrial levels, and climate-related natural disasters are increasing in frequency to almost one per week.⁴ At the current rate of global emissions, we have about ten years left before we exceed the carbon budget to limit warming to 1.5°C above pre-industrial levels.⁵ The world must decarbonize quickly, and natural climate solutions such as sustainable forestry and agriculture will be critical in this effort, providing approximately 37% of the CO₂ mitigation required over the next decade.⁶ Yet some of the effects of climate change are unavoidable, and all industries—including forestry and agriculture—will be impacted.

Our management approach

We are in the business of providing natural climate solutions. Our core business—responsibly managing forests and farms—opens up natural carbon sequestration opportunities. And we further enhance these climate change mitigation efforts by investing in renewable energy and energy efficiency. Engaged in partnerships and through research we're funding, we also seek to understand how we can best adapt our investment decision-making and property management practices to climate change.

Our 2019 *impact*

773 M

Forests – MtCO₂
stored at year end

3.2 M

Forests – MtCO₂
stored in wood products
harvested in 2019

160

Forests – MtCO₂
stored / acre

74 K

Forests – MtCO₂
stored / \$1 M invested

1.16 B

Forests – trees
planted (cumulative)

6.1 M

Forests – carbon credits
sold (cumulative, MtCO₂)

65 K

Total scope 1
emissions (MtCO₂e)

41 K

Total scope 2
emissions (MtCO₂e)

426 K

Total scope 3
emissions (MtCO₂e)

-3.1 M

Total GHG removals
(MtCO₂, 5-year trailing
average)

MtCO₂e = metric tons CO₂ equivalent

How we're contributing to *climate stability*

Sequestering carbon

When sustainably managed, forests and farms are natural climate solutions—they biologically remove carbon dioxide from the atmosphere. We rigorously account for the net GHG emissions of our properties.

Offsetting our carbon footprint

Our properties are a net carbon sink, but our corporate operations (including office energy and air travel) emit about 1,300 MtCO₂e. We believe it's important to walk the talk, so we partnered with The Conservation Fund to plant trees in the Upper Ouachita National Wildlife Refuge in Louisiana to offset these corporate emissions.

Halting deforestation

Deforestation is one of the top contributors to climate change.⁷ We adhere to a strict zero-deforestation commitment, and as a signatory to the 2019 Investor statement on deforestation and forest fires in the Amazon,⁸ we fully participate in the global effort to halt deforestation.

Selling carbon credits

We actively participate in carbon markets. In 2019 alone we sold over 1.2 million credits from our New Zealand forests. Since inception, we have sold over 6.1 million metric tons of carbon credits.

Improving soil health

Many of our farms use regenerative agriculture practices such as cover-cropping and no-till or low-till farming in order to maintain/enhance soil health. Such practices can preserve or increase soil organic matter, water content, and fertility, and reduce input costs for fertilizers and tilling. Over the long term, these practices may provide substantial carbon sequestration opportunities.

Deploying renewable energy and energy efficiency

We integrate renewable energy and energy efficiency into our operations. Irrigation, for example, can require considerable energy, especially to pump water, but we are using energy monitoring systems and upgrading

our pump stations to “soft start” variable frequency drives, which require less electricity. And in California, our farms contain eight solar arrays with 7.5 MW total capacity.

Understanding climate risks

Through our partnerships with the World Business Council on Sustainable Development's (WBCSD) Forest Solutions Group and Scaling Positive Agriculture, as well as with both the MIT Joint Program on the Science and Policy of Global Change and the Climate Smart Land Network, we are preparing to better understand and respond to the risks climate change poses to forestry and agriculture. Manulife is a signatory to the Task Force on Climate-related Financial Disclosures (TCFD), and we are preparing to report in accordance with the TCFD in future years.



Native forest in Los Rios region, Chile. | Our management program encourages the return of natural habitat and expedites forest growth to healthy, productive native species. Photo submitted by Jason Reynolds.





Black bear cub in Oregon, USA | Pat Matthews, Oregon Department of Fish and Wildlife. Photo submitted by Traci Maselli

Ecosystem *resiliency*

Why it's important

Productive ecosystems thrive on biodiversity, and biodiversity is declining exponentially faster now than at any time in human history.⁹ In addition to the tremendous intrinsic value of biodiversity, at least 40% of the world's economy and 80% of the needs of the poor are derived from biological resources).¹⁰

Our management approach

We pursue comprehensive third-party sustainability certifications for our forest and farmland assets and strive to protect biodiversity through our Sensitive Lands program, stewardship and conservation efforts. Good stewardship requires not only growing trees or crops, but managing ecosystems, which is why we go out of our way to protect

existing habitat for threatened and endangered species, and even create new habitat to encourage beneficial species such as butterflies, pollinators, and migratory birds onto our land. We know soil health is critical for long-term agricultural productivity, and we are exploring different practices for improving it (cover cropping or low-till or no-till farming, for example).

Our 2019 *impact*

100%

forests % certified sustainable

471 K

sensitive forest lands protected
(cumulative acres)

101 K

farmland acres certified sustainable

How we're contributing to *ecosystem resiliency*

Forest certification

100% of HNRG-managed forests are third-party certified sustainable. We manage over 3.6 million acres of North American forests certified under the Sustainable Forestry Initiative® (SFI), and nearly 2.2 million acres of forests in Australia, New Zealand, and Chile certified under the Forest Stewardship Council® (FSC), of which 1.9 million acres are dual-certified under the Programme for the Endorsement of Forest Certification (PEFC).

Farmland certification

HNRG currently manages over 100,000 acres of third-party certified sustainable farmland. Certifications include Global GAP, USDA GAP, SAI-FSA, Lodi Rules, and the Leading Harvest Farmland Management Standard. We are proud to have helped establish Leading Harvest, a third-party, industry-wide, performance-based sustainability stan-

dard for agriculture. Our goal is to bring our farmland up to the same standard as our forests, with 100% certified as sustainable.

Establishing wetlands

We know that wetland ecosystems are crucial for biodiversity, as well as providing climate benefits, and we take care to preserve them. In Wisconsin, for example, every acre of cranberry production requires approximately six acres of support wetland. Our growers carefully protect these high-quality wetlands to ensure not only the high standard of water needed for cranberry production, but also to protect the wide variety of plants, insects, birds and aquatic animals that thrive on the properties.

Conserving biodiversity

We protect riparian (shoreline) areas, create pollinator habitats, work with partners to establish and enhance migratory bird habitats, and encourage

mutually beneficial predatory species on our properties. For example, over the past three years, we have planted nearly 95 acres of pollinator habitat on our California almond orchards. We also vary and rotate crop species as determined by specific criteria, including benefits to biodiversity plans.

Protecting sensitive lands

Our staff biologists identify Forests with Exceptional Conservation Value (FECVs) and Threatened and Endangered (T&E) Species. We develop plans to preserve FECVs and protect habitat for T&E species, and hold training sessions and tailgate meetings so field staff know how to identify them.



Honeybee pollinating almond tree at Tooleybuc Farms in New South Wales, Australia | The most important animal on the planet working hard in cool conditions pollinating almond trees. Photo courtesy of Darren Sargood





Pearsons Falls in Medford, Oregon, USA | Waterfall in a state park, accessible through HFM-managed lands. Photo courtesy of Jennifer Bakke.

Watershed *protection*

Why it's important

Healthy forests are vital for maintaining sufficient, high-quality water. Forested watersheds provide 75% of the world's accessible freshwater resources,¹¹ and there is a direct relationship between higher forest cover and lower water treatment cost.¹² In the United States alone, five of the largest municipal water systems in the country (including the largest, in New York City) are unfiltered, relying instead on “green infrastructure”—forests.¹³ On the other hand, in water-scarce areas, agriculture may increase water stress. Globally, 69% of water usage is for agriculture, and total water withdrawals are only expected to rise with global food demand and population growth.¹⁴

Our management approach

Protecting and improving watersheds is vital for the ecosystems and communities that depend on them. We do this by protecting sensitive lands, adhering to strict water and land management policies and best practices, supporting forest growth, and incorporating water availability into our due diligence. With nearly 12,000 miles of stream frontage, we take great care to maintain or improve the quality of water flowing through the land we manage, and use only the water we need. All of our directly operated farms have water management plans in place and employ water conservation practices. Many of these track water consumption on a daily basis, sometimes down to the millimeter. In California, we have also built recharge basins that enable us to put floodwater back into groundwater aquifers.

Our 2019 *impact*

12 K

miles of stream frontage protected

100%

permanent crop farms using water conservation practices

How we're contributing to *watershed protection*

Maintaining riparian zones

Riparian zones—the interface between land and rivers or streams—are important to ecological and community health. We maintain well-established riparian zones with generous buffers, on both our forests and our farms, providing space for natural filtering to improve downstream water quality.

Prioritizing water in due diligence

In water-scarce agricultural regions, we conduct extensive environmental and legal due diligence, beyond the scope of standard environmental assessments, to ensure we have legal access to sufficient water, now and into the future.

Conserving water

We encourage cover vegetation, such as native winter grasses and seeding cover, to grow in orchard middles, and in some of these distribute wood chips, in order to minimize the amount of water lost to infiltration or evaporation. We have also enrolled a test property in the California Almond Sustainability Program's water assessment tool, and contribute data to help with tool development.

Replenishing groundwater supplies

We actively manage surface water and reduce well usage where possible. In California, we have followed hundreds of acres in order to capture flood flows (which would otherwise be lost, or flood and damage properties) to replenish groundwater supply.

Deploying precision irrigation

We use remote irrigation control and soil moisture probes to optimize irrigation effectiveness and reduce water usage. We also calibrate irrigation systems to site, soil, and topographic characteristics, and hire external water consultants to assist in developing water efficiency projects.

Maintaining water quality

We install and actively manage fertilizer injection pumps throughout our farms. By using nutrient management planning and injecting rather than broadcasting fertilizers, we can precisely match our fertilization to the consumptive use of the crop to prevent leaching.



Aesthetic buffer for first thinning in Louisiana, USA | Logging crew providing an aesthetic buffer on the lake to prevent erosion. Photo courtesy of Brady Kumler





Take your child to work day in Washington, USA | Photo courtesy of Florian Deisenhofer

People *empowerment*

Why it's important

Health and safety are important in every sector, but in forestry and agriculture they are paramount. Both sectors often require long hours outdoors in remote locations working with heavy equipment, and exposure to temperature extremes and different kinds of wildlife. Globally, the safety statistics for these two sectors compared to other industries reflect the demands of their working environments.¹⁵ And while safety is essential, it's not enough—employee engagement is the real key to a successful (and safe) business.¹⁶

Our management approach

We value our employees and contractors, and work to ensure that we are offering not only safe and healthy working environments, but the tools, training, and support they need to thrive. People are our most valuable asset, and keeping them safe always comes first. But we go beyond safety to empower our people, providing extensive training and development opportunities, and rewarding them for their hard work with comprehensive benefits. We also strive to build diverse and inclusive teams, recognizing they are more engaged and outperform those that are less diverse and inclusive.¹⁷

Our 2019 *impact*

906
total number of employees

8,500
training hours

28%
total workforce % female

7.0 / 4.5
enterprise TIFR* / LTIFR**

* TIFR = Total injury frequency rate

** LTIFR = Lost time injury frequency rate

How we're contributing to *people empowerment*

Living our values

Last year our CEO Bill Peressini convened a task force to articulate our company's culture and values. They are both descriptive of the unique and consistent ways we have operated and interacted with our colleagues, clients and communities for decades, as well as aspirational, in the sense that these values are what we want to be known for: Protect our people from harm. Consider clients first. Do the right thing (even when no one is looking). Think Big. Get it done together. Own it. Share your humanity.

Fostering a safety culture

Health and safety are the responsibility of every employee, and no job is too important or urgent that it cannot be done safely. We conduct independent reviews and audits of our safety and welfare programs, as well as weekly site-level safety meetings for operations and annual meetings with vendors, universities, and pest contractors to discuss emerging health and safety issues.

Leveraging innovation

We partnered with startup Droneseed to plant more rapidly on land exposed to wildfires. Our Australasian forestry

operations use technology in logging truck cabs to monitor for driver fatigue, keeping drivers and other road users safe. We also helped develop a method for mechanized tree felling on steep terrain to reduce the need for manual felling.

Training our people

Last year, our employees completed nearly 8,500 hours of training, covering topics such as ethics, compliance and leadership, as well as position-specific requirements. We also provide extensive training for many of our contractors, like setting up model orchards to prepare labor crews for harvesting.

Providing comprehensive benefits

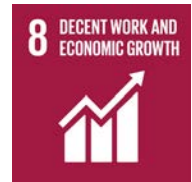
We provide a comprehensive compensation and benefits package to our employees, and while benefits vary by country, they may include performance bonuses, health insurance, retirement plans, pension plans, employee stock ownership programs, fitness benefits and public transit commuter subsidies, as well as generous matching gift programs and tuition support for employees furthering their education.

Funding university research and scholarship

We contribute to a number of universities and research organizations to promote research in agriculture and forestry, and to support scholarships for the next generation of foresters, farmers, and investment managers.

Committing to diversity and inclusion

Our Diversity and Inclusion (D&I) Committee continues to help make HNRG a more diverse and inclusive company. Following a survey of all employees to identify the D&I priorities of our staff, the committee formed five working groups, focused on recruiting and induction, employee development, policy, communications, and metrics. This year we provided both mandatory and elective D&I training for all employees, including an e-learning platform on unconscious bias. We have also endeavored to create diverse candidate pools through university and other recruiting efforts, and continue to inform and educate employees by posting articles and scheduling outside speakers who advocate for diversity and inclusion in the workplace globally.



Kids Planting Day in Washington, USA | Foresters talking with middle school students about planting trees and careers in forestry. Photo courtesy of Heather Nunnally





Christmas tree shopping in Washington, USA | Employees building a strong community by doing fun office activities together, such as bringing our dogs along to help find the perfect Christmas tree. Dogs from left to right Ava, Drake, Daisy, Finley, Junior, Ember, Annie. Photo courtesy of Heather Druffel

Community *prosperity*

Why it's important

Forestry and agriculture take place in rural areas, which often experience greater economic challenges and have fewer promising employment opportunities. As the world population increasingly gravitates toward urban centers, maintaining strong and prosperous rural communities will grow in importance.^{18,19} Key to this prosperity will be developing genuine collaborative relationships with local and Indigenous communities that call these areas home.

Our management approach

Committed to supporting and strengthening the local and Indigenous communities where we operate, we provide rewarding employment opportunities, allow public use of our land, partner with non-profits, support local causes, and strive to be a good neighbor in these communities.

Our 2019 *impact*

\$512 K

charitable contributions (corporate)

\$49 K

charitable contributions (employees)

5.2 M

lands open to public access
of any type (acres)

2.3 M

lands open to public access
(acres, unrestricted only)

How we're contributing to *community prosperity*

Buying local to facilitate economic development

Preferring to buy local, we maintain a preferred vendor list and contracts with local companies wherever possible. Farm labor is locally sourced and their wages are higher than local averages. Managers work with neighbors to coordinate efforts along fence lines, and have offered to buy supplies for neighbors to help with pest control.

Making charitable contributions

In 2019, we contributed over \$512,000 to non-profits, which included matching \$45,000 in employee contributions to charitable organizations of their choice.

Hosting workshops and community days

Some of our community work involves hosting pollinator workshops, presenting on sustainable agriculture to local high schools, and providing materials for wood shop classes to build owl and bat boxes. A number of our farms hold public events and

field days to educate the public on sustainable farming practices.

Volunteering

Our Boston office partnered with Arbor Day and local non-profit Speak for the Trees to provide over 100 fruit trees to residents in low tree-canopy neighborhoods. We also volunteered on a two-acre urban farm in Boston run by The Food Project, harvesting, weeding, and composting, and engaged in group activities highlighting healthy food access and community health.

Conserving land for hiking trails

In 2019, we sold land to The Conservation Fund, which enabled the repositioning of the Pinhoti Trail from roads onto trails and pathways in the woods. This segment is in Alabama, close to the southern terminus point at Flagg Mountain.

Managing visual impacts in forestry

We develop harvest plans with visual quality in mind, providing buffers

along public roads, limiting the amount of harvest area viewable, and leaving ample retention to break up harvest blocks.

Engaging Indigenous peoples

In keeping with the Equator Principles, we formally acknowledge the rights of Indigenous peoples and employ many contractors of First Nations descent in our operations. For example, we manage land for the Muckleshoot tribe and are seeding plants that the tribe has determined to have medicinal benefits along roads, landings, and throughout commercial thinning operations.

Protecting special sites

We maintain a special site protection program to safeguard areas of our property that are culturally, historically, or geologically unique. If a potential archeological site is identified, regional management will contact local Indigenous communities to ensure we appropriately address any of their concerns.



Volunteering to keep New Zealand Beautiful in Waikato, New Zealand | Employees removed illegally dumped rubbish from the Kinleith Forest. Photo courtesy of Sarah-Jane Luoni



Sustainability *dashboard*


This dashboard represents our performance against key metrics for each of our five SRI themes over the past three years. The four columns to the right of the yearly statistics document alignment of our metrics with external impact measurement standards, including

the Global Impact Investing Network (GIIN), Sustainable Forestry Initiative (SFI), Leading Harvest (LH), and the SDGs. The GIIN metrics align at a granular level; the other three align at the broader SRI priority level.




| Climate stability | 2017 | 2018 | 2019 | GIIN | SFI | LH | SDGs |
|---|--------|--------|--------|--------|------------|------------|---|
| Total scope 1 emissions (MtCO ₂ e) | 38 K | 38 K | 65 K | OI4112 | | |  |
| Total scope 2 emissions (MtCO ₂ e) | 17 K | 16 K | 41 K | OI9604 | | | |
| Total scope 3 emissions (MtCO ₂ e) | 320 K | 328 K | 426 K | OI9604 | | | |
| Total GHG removals (MtCO ₂ , 5-year trailing average) | -8.2 M | -6.0 M | -3.1 M | PI9878 | | | |
| Forests - MtCO ₂ stored at year end | 817 M | 829 M | 773 M | – | Obj 10, 11 | Obj 10, 13 | |
| Forests - MtCO ₂ stored in wood products harvested in 2019 | 4.2 M | 3.8 M | 3.2 M | – | | | |
| Forests - MtCO ₂ stored / acre | 163 | 158 | 160 | – | | | |
| Forests - MtCO ₂ stored / \$1 M invested | 75 K | 78 K | 74 K | – | | | |
| Forests - trees planted (cumulative) | 1.06 B | 1.11 B | 1.16 B | OI3757 | | | |
| Forests - carbon credits sold (cumulative, MtCO ₂) | 4.1 | 4.9 | 6.1 | OI6774 | | | |

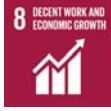


| Ecosystem resiliency | 2017 | 2018 | 2019 | GIIN | SFI | LH | SDGs |
|---|-------|--------|-------|--------|-------|-------------|---|
| Forests % certified sustainable | 100% | 100% | 100% | OI1120 | | |  |
| Sensitive forest lands protected (cumulative acres) | 462 K | 470 K | 471 K | PI3924 | Obj 4 | Obj 4, 6, 7 | |
| Farmland acres certified sustainable | 6.9 K | 14.5 K | 101 K | OI1120 | | | |




| Watershed protection | 2017 | 2018 | 2019 | GIIN | SFI | LH | SDGs |
|---|------|------|------|--------|-------|-------|---|
| Miles stream frontage protected | – | – | 12 K | PI3239 | Obj 3 | N/A |  |
| Permanent crop farms using water conservation practices | 100% | 100% | 100% | OI9326 | N/A | Obj 3 | |



| People empowerment | 2017 | 2018 | 2019 | GIIN | SFI | LH | SDGs |
|--------------------------------|------|------|-------|--------|------------|------------|---|
| Employees | 811 | 847 | 906 | OI3160 | | |  |
| Training hours | – | – | 8,500 | OI7877 | | | |
| Total workforce % female | 25% | 25% | 28% | OI6213 | Obj 10, 11 | Obj 10, 13 | |
| Enterprise TIFR ²⁰ | – | 10.7 | 7.0 | OI3757 | | | |
| Enterprise LTIRF ²¹ | – | 6.3 | 4.5 | OI3757 | | | |



| Community prosperity | 2017 | 2018 | 2019 | GIIN | SFI | LH | SDGs |
|--|---------|---------|---------|--------|-------------------------|-----------|---|
| Charitable contributions (corporate) | \$358 K | \$466 K | \$512 K | FP3774 | | |  |
| Charitable contributions (employees) | – | – | \$49 K | FP3774 | Obj 5, 6, 8, 12, 13, 14 | Obj 8, 11 | |
| Lands open to public access of any type (acres) | 5.5 M | 5.5 M | 5.2 M | PD9009 | | | |
| Lands open to public access (acres, unrestricted only) | 2.5 M | 2.5 M | 2.3 M | PD9009 | | | |

Endnotes and disclosures

Endnotes

- 1 <http://www.fao.org/international-day-of-forests/key-messages/en/>
- 2 <https://www.ecohealthalliance.org/2017/11/deforestation-impact-planet>
- 3 https://www.researchgate.net/publication/320601003_Carbon_footprint_of_pre-fabricated_wood_buildings
- 4 <http://reports.weforum.org/global-risks-report-2020/a-decade-left/#hide/fn-2>
- 5 <https://www.carbonbrief.org/analysis-why-the-ippc-1-5c-report-expanded-the-carbon-budget>
- 6 <https://www.pnas.org/content/114/44/11645>
- 7 <https://www.pnas.org/content/114/44/11645>
- 8 <https://www.unpri.org/news-and-press/230-investors-with-usd-162-trillion-in-aum-call-for-corporate-action-on-deforestation-signaling-support-for-the-amazon/4867.article>
- 9 <http://reports.weforum.org/global-risks-report-2020/save-the-axolotl/#hide/fn-4>
- 10 http://web.mit.edu/12.000/www/m2015/2015/benefits_humans.html
- 11 <http://www.fao.org/in-action/forest-and-water-programme/en/>
- 12 <https://www.awwa.org/AWWA-Articles/forest-cover-and-its-effect-on-water-treatment-costs>
- 13 <https://www.nytimes.com/2018/01/18/nyregion/new-york-city-water-filtration.html>
- 14 <https://www.credit-suisse.com/about-us-news/en/articles/news-and-expertise/water-scarcity-a-new-report-by-credit-suisse-202001.html>
- 15 <http://www.fao.org/3/i9180en/i9180EN.pdf>
- 16 <https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/sustainingemployeeengagement.aspx>
- 17 <https://press.princeton.edu/books/hardcover/9780691176888/the-diversity-bonus>
- 18 <https://www.irp.wisc.edu/wp/wp-content/uploads/2019/01/Focus-34-3c.pdf>
- 19 https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_636038.pdf
- 20 TIFR = Total Injury Frequency Rate
- 21 LTIFR = Lost Time Injury Frequency Rate

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