

# **Business Outline**

The Sumitomo Forestry Group engages in a variety of business activities pivoting on wood. Based on its customer relationships and network within and outside of Japan, and backed by its wood-related technologies and know-how, we contributes to the realization of a sustainable and prosperous society through various lifestyle-related services.

Sumitomo Forestry Integrated Report 2020

# **Timber and Building Materials Business**





Representative Director
Executive Vice President and Executive Officer
Divisional Manager of Timber and
Building Materials Division
Shigeru Sasabe

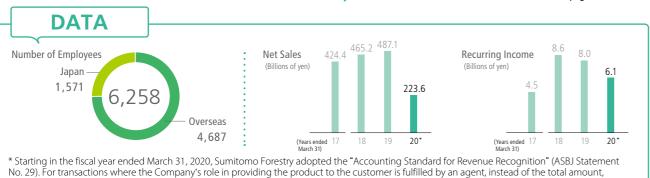
revenue is now recognized in the net amount.

As the No. 1 share company in the domestic timber and building materials distribution markets, we provide total solutions, from distribution to the manufacture and sale of timber and building materials.

Based on a global network built up over years of developing operations worldwide, the Timber and Building Materials Distribution Business sources stable supplies of high-quality timber from properly managed forests. As the No. 1 share company in the domestic timber and building materials distribution markets, Sumitomo Forestry operates a broad range of businesses, from procurement to the manufacture and distribution of timber and building materials.

The Group's manufacturing operations in Japan produce furniture and fixtures, staircases, and wooden interior fittings. Overseas, we produce wooden board products such as plywood, medium-density fiberboard (MDF) and particle board and various building materials such as flooring, furniture and kitchen cabinets. We supply them all over the world including Japan.

See Initiatives towards Sustainable Procurement on page 57 for details.



# Initiatives towards Growth

# Strengthening the Sustainable Growth Foundation by Building a Business Structure in Tune with Market Changes

In the Timber and Building Materials Distribution Business, while leveraging its supply chain in sustainable timber procurement, the Company continues to concentrate efforts on increasing sales of environmentally friendly products, such as certified timber, expanding transactions in wood fuel for power generation, growing exports of domestic timber, and bolstering initiatives in the non-residential building construction market. We are also increasing the range of variations for KIKORIN-PLYWOOD, a high-quality,

environmentally friendly plywood that the Company developed, giving customers a broader selection of products.

In the Manufacturing Business, we aim to increase profitability through the development of high-value-added products that satisfy customer needs, by enhancing marketing in conjunction with the Timber and Building Materials Distribution Business and integrating manufacturing and sales further.

# Progress in Fiscal 2019

The Timber and Building Materials Distribution Business made progress strengthening collaboration with its partners by reorganizing its operational structure to more closely match that of the business models of its partners. Our aim is to secure diverse sources of earnings by building a business portfolio that does not depend on the housing market. We are concentrating efforts on expanding exports of domestic timber, increasing the handling of wood fuel for power generation, and bolstering initiatives in the non-residential

building construction market. At the same time, we are working to grow sales of environmentally friendly products that use certified timber and sustainably produced plantation timber.

In the Manufacturing Business, domestic sales were solid for building materials, including wood for stairs and floors. In New Zealand, manufacturing costs rose, and sales of MDF to Japan were weak.

# Launch of Structure Express as Service to Assist in Structural Design for Builders and Pre-Cut Factories

-Promoting the Spread of Reliable and Safe Housing and Endeavoring to Solve Problems of Labor Shortages and Long Working Hours -

In August 2020, the Company began to offer Structure Express, a service for builders and pre-cut factories that helps them with structural design, as a new business that utilizes its know-how accumulated in the Housing and Construction Business and networks in the Timber and Building Materials Business. By automatically calculating the optimal parts and materials required to ensure performance for grade three earthquake resistance while providing structural calculation sheets, we aim to increase the number of reliable and safe housing that are resilient to earthquakes and comply with revisions to the Licensed Architect Act related to mandates to preserve architectural blueprints. Based on the architectural drawing data for a home, the system automatically generates the structural calculations, structural framing plan, and data that links pre-cut and CAD, thereby streamlining the design work in builders and saving time in CAD work at pre-cut factories. It is also a beneficial service for all, including builders, pre-cut factories and building owners.

We will roll out promotions nationwide in a bid to turn this service into a new standard, and target 300 builders and 3,000 buildings by fiscal 2023.

Sumitomo Forestry Integrated Report 2020 2

# Timber and Building Materials Distribution Business

# Delivering Quality Timber and Building Materials Through Solid Relationships with Suppliers Around the World

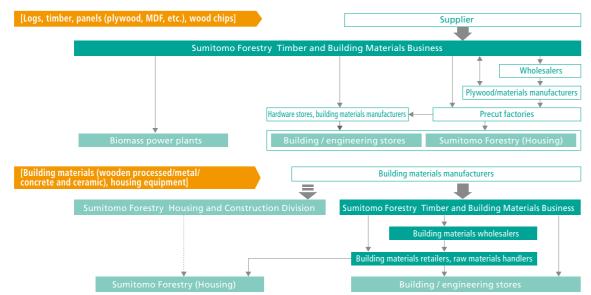
In recent years, Sumitomo Forestry has concentrated on handling wood chips as fuel for biomass power plants, demand for which is likely to expand, as well as domestically grown timber that is ready for harvesting. Furthermore, we are focusing on increasing the use of wood in nonresidential building construction, by supporting the design of wooden retail stores and offices, while supplying structural wood for medium- to largescale building construction. In overseas distribution operations, we established a sustainable business cycle in New Zealand, spanning forestation, logging and distribution, and we also export logs from the forests we own and manage in New Zealand to markets

across Asia. From our administrative base in Singapore, we mainly focus on selling timber and building materials to countries in Southeast Asia. In Vietnam, which has huge growth potential, we have a business alliance with An Cuong Wood-Working JSC, Vietnam's leading manufacturing and distribution company for interior building materials.

We have put into place an integrated structure from raw material procurement to home construction.



# **Main Commercial Logistics Flowchart**



# ●KIKORIN-PLYWOOD

KIKORIN-PLYWOOD is a JAS-compliant product made of at least 50% certified timber and sustainable plantation timber. A portion of sales are steered toward forestation programs the Group undertakes in Indonesia. KIKORIN-PLYWOOD won the EcoPro Award in 2018.







# Developing and Selling High-Value-Added Products Through Integrated Manufacturing and Sales Structure

In recent years, in the international market for wooden board products, competition has intensified as major manufacturers have expanded their facilities. As a result, the development of high-value-added products that cater to user requirements and marketing is more demanding than ever before. For this reason, the Group has integrated its overseas and domestic manufacturing operations and sales operations of timber and building materials,

and organized and improved each company's production technologies and factory management methods to ensure thorough cost reductions, and enhanced product development and marketing functions. We are also working to build a robust business base by developing personnel with high-level expertise in manufacturing technology. We will continue to build enterprise value and achieve sustainable growth over the medium and long terms.

# [Domestic Manufacturing Group Companies]



# Sumitomo Forestry Crest Co., Ltd.

Manufacturing / wooden housing-related materials, housing equipment, engineering wood, stair materials, dressed lumber, synthetic resin adhesives, chemical materials

Sumitomo Forestry Crest Co., Ltd.'s Kashima Plant

# [Overseas Manufacturing Group Companies]

# New Zealand

Nelson Pine Industries Ltd.
Manufacturing / medium-density
fiberboard (MDF), veneer and laminated
veneer lumber (LVL)

# United States

Canyon Creek Cabinet Company Manufacturing / kitchen cabinets



Vina Eco Board Co., Ltd. Manufacturing / particle board



Spacewood Furnishers Pvt. Ltd. Manufacturing / kitchen cabinets, wooden building materials, wooden furniture. etc.



PT. Kutai Timber Indonesia Manufacturing / plywood, secondary processed plywood, processed timber products and particle board



PT. Rimba Partikel Indonesia Manufacturing / particle board and melamine faced chipboard



PT. Sinar Rimba Pasifik
Manufacturing / wooden building
materials, wooden furniture, etc.



**PT. AST Indonesia**Manufacturing / materials for musical instruments, wooden building materials and wooden furniture

Sumitomo Forestry Integrated Report 2020

Housing and Construction Segment

Business Outline

# **Housing and Construction Business**





Managing Executive Officer
Divisional Manager of Housing and
Construction Division
Ikuro Takahashi

# Comfortable homes worth living in forever, with unique feeling and functionality of wood

Since it entered the Custom-Built Detached Housing Business in 1975, the Sumitomo Forestry Group has provided quality living environments by proliferating high-quality homes that last a long time. "Sumitomo Forestry Home Houses," made from advanced construction methods while fully expressing the attractiveness and qualities of wood, is a leading brand in custom-built wooden detached homes. They have received high accolades for being gentle on the environment, and as comfortable, safe and secure homes that can be lived in for a long time.

Today, leveraging the designing and technological capabilities it accumulated in the custom-built housing business, Sumitomo Forestry has diversified its operations into the apartment business & residential property development (spec homes business), landscaping business, and existing homes business.

Over the past few years, Sumitomo Forestry has been promoting the use of wood materials in non-residential building construction fields, with the aim of expanding the new production and use of wood materials as a part of national policy.

The Sumitomo Forestry Group will continue to offer abundant lifestyles by providing high-value-added products and services while harnessing synergies in housing-related businesses.

# Initiatives towards Growth

The number of new housing starts is likely to tend downward, alongside the declining population and number of households amid a falling birthrate and aging population. In addition, the business environment has become more challenging due to the COVID-19 pandemic. However, new demand is emerging amid the "new normal" and values unique to mature markets. In the Housing and Construction Business, we are keen to diversify the contract work business and expand the existing homes business while keeping an eye on changes in the future.

In the Custom-Built Detached Housing Business, Sumitomo Forestry builds highly satisfactory homes for customers by proposing layouts with home office spaces and interior wood materials that only Sumitomo Forestry can offer, in addition to providing living environments that are comfortable yet strong against natural disasters, while promoting net zero-energy houses (ZEH). Furthermore, to address serious labor shortages, we are accelerating initiatives to strengthen and streamline productivity and cut costs by reducing the number of processes with pre-cast foundations, pre-cut parts and materials, and panels.

In the existing homes business, we are building and strengthening a framework for leveraging Group-wide management resources in each business to their fullest, including renovation, real estate distribution and real estate management, in order to meet the various requests and needs of customers for selling existing housing, rebuilding housing and renovation.

Sumitomo Forestry will establish a diverse earnings base through initiatives to expand the Apartment Business and spec homes business, while promoting the use of wood in non-residential building construction fields.

# Progress in Fiscal 2019

In the custom-built detached housing business, we continued to bolster efforts to offer highly customized proposals to first-time buyers looking for land. We also focused on expanding orders for ZEH (net zero-energy house) specification housing. In our apartment business, we launched the Forest Maison CARRÉ apartment series featuring buildings with enhanced design and highly durable exterior materials such as roofs and outer walls.

In the renovation business, we worked to promote earthquake resistance renovations leveraging our advanced technical expertise rooted in the Group's original seismic-resistance and seismic-vibration damper construction methods. In the spec homes business, we concentrated on expanding business in the three major metropolitan areas of Tokyo, Osaka, and Nagoya. As a result, both procurement

and sales trends were robust.

In our MOCCA (Timber Solutions) business, we continued to encourage the use of wood in non-residential buildings, including by completing construction of a day care center as well as a mixed-use building with office and retail space.

In May 2019, we forged a business agreement with Marui Group Co., Ltd. to comprehensively collaborate in the housing and construction business fields and invest in its subsidiary AIM CREATE Co., Ltd. By utilizing AIM CREATE Co., Ltd.'s know-how in the planning, interior design and construction of commercial facilities to enhance our ability to propose ideas for the interior renovation of non-residential properties, we aim to further bolster our business performance.





# Reducing Burden of Housing on Global Environment

We construct most of our houses using either the Big-Frame (BF) construction method that uses a wooden-beam Rahmen structure or the Multi-Balance (MB) construction method, an evolved iteration of the wooden post-and-beam construction. Both approaches enable us to satisfy a variety of customer needs by allowing flexible floor plan design. In addition, there has been a strong need for long-lasting, high-quality homes that reflect full consideration of factors such as safety, durability,

ZEH (net zero-energy house)

ZEH denotes housing that combines high thermal insulation

generating equipment such as solar power systems to achieve annual primary net energy consumption of zero or less. We have

long provided homes that are comfortable to live in throughout

performance and energy-saving equipment with energy

and environmental impact. In this environment, we have been promoting the widespread adoption of homes specified as ZEH (net zero-energy house) that reduce the annual energy consumption of each household. We supply living environments that are resilient to natural disasters and comfortable year-round.

People are thinking about housing in many more different ways than before as a result of changes in their values and lifestyles. We are

harnessing the wealth of ideas and know-how that we have built up to date to make our customers' dream homes a reality. In doing so, we focus on providing housing meeting the requests of an array of customers, from first-time home buyers looking to acquire the first place of their own to double-income households and married couples that are done raising their children and seeking a residence for themselves. With telecommuting on the rise due to the spread of COVID-19, we are also making proposals for floor plans that secure space for work. Using the Internet of Things (IoT), we are developing a new service that seeks to provide rapid support to customers who have been caught up in natural disasters. In the future, this service could be applied to areas such as the smart city concept. By making housing with new value-added features more widely available in society, we will contribute to the reliability and safety of as many customers as possible.

# High-efficiency water heater (ENE-FARM, ECO Next-generation High-efficiency air conditioners

Solar power Forestry Home

HEMS (Home Energy









the year by using wood, which is a renewable natural resource that absorbs and stores CO2 during its growth process, as a primary structural material, and by incorporating our Ryouonbou natural heating and cooling design concept, which takes advantage of natural blessings like wind and sunlight. Along with our expertise in utilizing those unique properties of trees and nature's bounties, we are employing techniques to reduce energy consumption such as enhancing insulating performance and introducing energy-saving equipment as well as technology that facilities smart energy use such as equipment that creates and stores energy and HEMS\* to enhance energy efficiency in the home. In doing so, we aim to reduce household CO2 emissions.

\* HEMS stands for Home Energy Management System. It is a system that manages energy in the home, and visualizes the amount of electricity generated and consumed.

# Start of Sumirin Denki Electricity Service for Post-FIT Owners

In November 2019, the Group began offering services as an agent for the purchase of surplus electricity from home solar power generation as well as for electricity supply for Sumitomo Forestry Home House owners whose 10-year purchase period under the renewable energy feed-in-tariff (FIT) scheme has ended ("post-FIT"). Dubbed Sumirin Denki, this service is increasing customer satisfaction while helping us to achieve our Science Based Targets (SBT) for 2030 by effectively utilizing our offices, model homes, and other locations. Please see page 51 for more details about SBT.



# Beautiful townscapes in harmony with nature

In the apartment business, the Group provides apartments with an appeal that only it can offer by fully utilizing its expertise in wood, including its original construction methods that leverage its technological capabilities and specifications from the viewpoint of residents. For residential property development, the Group's spec homes operations construct quality detached houses based on the technology and knowledge accumulated in the Group's businesses, such as the Custom-Built Detached Housing Business and the Landscaping Business. Features of these homes are that they respect regional histories, environments, and cultures, and that they are built as townscapes in harmony with nature. In addition to the design codes of buildings that consider all aspects of housing, from location selection through to space designs, our aim is to create townscapes with a sense of unity between the homes and nature.



# Home renovation with value to "sustain and utilize"

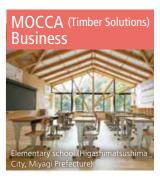
As Japan's housing stock has risen to around 62 million homes while the number of households is roughly 54 million, the Japanese government is promoting policies to make use of established housing and ensure the "formation of housing stock of good quality." The Group is developing home renovation technologies to improve disaster prevention and mitigation performance, such as by enhancing seismic-reinforcement construction methods. We also conduct businesses including, resales of renovated properties, real estate brokerage, and real estate rental and management with the aim of contributing to society as an eco-friendly business toward facilitating the effective utilization of housing stock as properly evaluated, highquality assets.



# Support for charming environments surrounded by nature

The landscaping business encompasses all aspects of "greenery," from general housing to urban spaces and the creation of communities with an emphasis on biodiversity. In residential exterior landscaping, we offer a range of services from planning and design to the installation and maintenance of exterior and outdoor greenery in order to enhance the value of the residence. In environmental landscaping, we can provide total support for the design, construction and maintenance of parks or office buildings and other urban spaces. We also offer landscaping consulting services for a variety of facilities, including factories and research centers.

# Promoting wooden construction methods and the use of wood for medium- to largesized buildings in non-residential fields



Interest is growing in wooden construction non-residential buildings in consideration of aspects like responding to climate change and being considerate to the environment. Using the expertise in wood that we have accumulated in various businesses, as well as our technological and design capabilities in the Housing and Construction Business, we are concentrating our efforts on expanding the MOCCA (Timber Solutions) business, which promotes wooden construction methods and the use of wood in low-rise, nonresidential wooden buildings, such a children's facilities, welfare facilities and lodging facilities. Going forward, with this business, we will continue to hand down the culture of wood while seeking to reinvigorate Japan's forestry industry and contribute to the realization of a sustainable society where the economy is in harmony with the environment.

# **Overseas Housing and Real Estate Business**





Managing Executive Officer
Divisional Manager of Overseas Housing and
Real Estate Division
Atsushi Kawamura

# Is diversifying revenue streams and entering into new areas, while contributing to each country's society and regional communities

Since the launch of the housing business in the United States in 2003, the Group has actively entered into new and promising growth markets, and it is currently conducting businesses in the United States, Australia, and Asia. In these regions, it is expected that demand for housing will be solid in the long term against the backdrop of their stably growing populations. We mainly sell detached housing to the actual-demand group as the primary market. We have been conducting the real estate development business in the United States since 2018 and stabilizing and diversifying revenue streams by developing not only the detached housing business, but also other businesses over a wide region.

Housing is a business with strong local characteristics due to changing local customs and lifestyle habits. Therefore, we manage this business by utilizing to the greatest possible extent the knowledge and know-how of local partners and the product value that is tailored to the needs of each region. We also aim to create synergies and to strengthen the competitiveness of each business by utilizing the comprehensive strength of the Group, including through joint purchases of materials and by sharing information. Further, to accommodate the diversification of housing needs in recent years, we have been enhancing our product lineup, such as to townhouses and condominiums.

# Initiatives towards Growth

In the detached housing business in the United States and Australia, we are focusing on increasing the number of homes sold through sales activities that are based on sales strategies tailored to each region. In the real estate development business in the United States as well, we continue to build a structure toward stabilizing revenue. Based on the organic growth of each company, the aim is to achieve stable growth by diversifying revenue streams and entering into new areas. Further, in order to grow the Asia region to be the third overseas revenue pillar after the United States and Australia, we are promoting new businesses,

including real estate development projects.

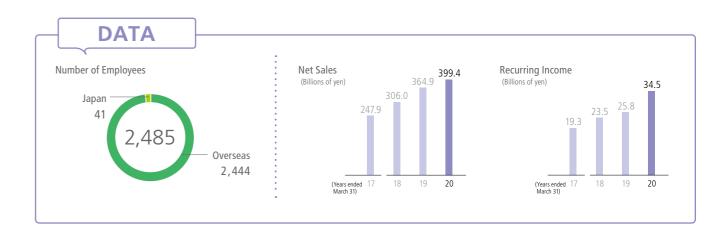
Also, to mitigate real estate investment risk, we appropriately conduct monitoring based on internal regulations, including confirming the inventory conditions of real estate for sale and the latest price trends, while we are further working to facilitate flexible responses in accordance with market conditions. From the viewpoint of growth in the future as well, through our businesses, we are aiming to contribute to local communities, solidify the business foundation, and further grow the business scale.

# Progress in Fiscal 2019

In the detached housing business in the United States, the housing market is trending solidly in the regions that the Group has entered into, and as a result, the number of homes sold increased compared to the previous fiscal period. In the detached housing business in Australia, the housing market has been sluggish and the number of homes sold declined compared to the previous fiscal period. In the real estate development business in the United States, we made steady progress in sales of multi-family housing and commercial and mixed-use facilities. In Southeast Asia as well, we made steady progress in Vietnam, Indonesia,

and Thailand for the detached housing and condominium projects that we are currently working on.

In February 2019, the Group acquired the equity of the Scott Park Group, which conducts a detached housing business in the state of Western Australia, and thereby we newly entered into the Western Australia area. Also, in January 2020 we established a joint venture with our strategic partner, Kumagai Gumi Co., Ltd., to embark on a real estate development business in Jakarta, Indonesia.



# **United States**

# Conducting a detached housing business and a real estate development business over a wide region, from the west coast to the east cost

The Group started sales of specs homes market research, we identified the in 2003 in Seattle, Washington, the areas in which the housing market can site of the distribution base with more be expected to steadily grow based on than 50 years' experience in timber and actual demand, and we have currently building materials. This marked our expanded the areas in which we entry into the United States, the world's conduct the detached housing business largest housing market. While valuing to 11 states nationwide, including the United States' unique housing Texas and Utah and Virginia and South Carolina on the East Coast. In addition culture, customs, and construction methods, we have built long-term to the detached housing business, the partnerships and accumulated know-Group is developing other businesses how in the housing business, including over a wide region, including Crescent through acquiring equity in leading Communities, which conducts a real local builders. By conducting in-depth estate development business, and Mark III Properties, which conducts a land development business.

Based on the relationships of trust with the management team of each company, which we have established by sharing our management philosophy and business policy, we are working to improve quality and design features. Moreover, while providing living environments and communities that meet the needs of each area in the United States, we are further progressing business expansion and development.

# **Detached Housing Business Group** Companies



MainVue Homes Group (WA/TX)





Gehan Homes Group (TX/AZ)

# U.S. detached housing business areas Dan Ryan Builders Group : Pennsylvania MD · Maryland WV: West Virginia : Virginia : North Carolina : South Carolina DE : Delaware MainVue Homes Group WA: Washington TX : Texas Bloomfield Homes Group **Gehan Homes Group** TX · Texas **Edge Homes Group** TX : Texas AZ : Arizona



Bloomfield Homes Group (TX)



DRB Group (MD/VA/WV/NC/SC/PA/DE)

## Crescent Communities business areas



# **Real Estate Development Business**



Crescent Communities (NC/SC/DC/GA/TN/FL/TX/AZ/CO)

# In addition to newly entering into the state of Western Australia, is conducting a detached housing business across all of Australia

VIC : Victoria

: Queensland

South Australia

QLD

The Group started a housing business in Australia in 2008, and we currently conduct a custom-built housing business and a spec homes business in the states of Victoria, Queensland, New South Wales, South Australia, and Western Australia. Henley Properties Group, which is a member of our Group, has acquired an excellent reputation. This

includes it being bestowed with the Professional Major Builder Award, which is presented to the building company with the greatest comprehensive capabilities in each state. It has won three times in Victoria, been selected in eight consecutive years since 2012 in Queensland and was selected as Australia's No. 1 in 2020, the second

time after also winning in 2015.

In Australia, in which the population is expected to grow in the long term, the Group is offering housing that meets the needs of a wide range of groups by developing multiple brands depending on the region.

# **Detached Housing Business Group Companies**



Henley Properties Group (VIC/QLD/NSW/SA)





Wisdom Properties Group (NSW)



# Is developing real estate including multi-family housing, commercial and mixed-use facilities, and detached housing

The Group is engaged in joint development of condominiums for sale and the detached spec homes business with local companies in Hong Kong, Vietnam, Indonesia, and Thailand. Business is being developed in all four of these markets based on actual demand alongside the regions' medium- to longterm economic growth. Continuing on from the United States and Australia, the Group is expanding its business fields into Southeast Asia, with a view to strengthening the earnings base of the Overseas Housing and Real Estate

In these regions, we are utilizing the functions and resources of local companies by developing this business through joint ventures with local companies, while at the same time, we consider that we are able to demonstrate our strengths by utilizing our design expertise and knowledge of creating attractive interiors that are rich with the essence of wood. We are aiming to stabilize the business foundation while capturing housing demand that is strong against the backdrop of factors including the rapidly progressing establishment of infrastructure, population increases, and rising income levels, while we are also contributing to improving the



living environment of people in local communities.





# **Environment and Resources Business**



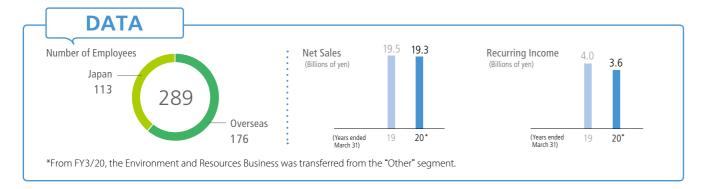


Managing Executive Officer
Divisional Manager of Environment and
Resources Division
Akira Sekimoto

# Planting trees, growing forests, and utilizing them as resources. Realizing the effective use of resources and local productionconsumption for energy.

Based on a "sustainable forestry" approach of planting, growing, logging, and utilizing trees, and then replanting trees, Sumitomo Forestry owns a total of approximately 48 thousand ha of forest in Japan (approximately 1/800th of the country's land area), for which we are conducting planned forestry management, including acquiring forestry certification from the Sustainable Green Ecosystem Council (SGEC). Overseas, we own and manage approximately 231 thousand ha in Indonesia, Papua New Guinea, and New Zealand, including forests that have acquired third-party certification such as FSC®, while we are also contributing to preserving biodiversity and developing local communities. In addition, in the Renewable Energy Business, which effectively utilizes wood and other resources, we are mainly conducting a wood biomass power generation business in Japan.

(FSC® license code: FSC-C113957)



# Initiatives towards Growth

Currently in Japan, forests planted after WWII have matured and reached their harvesting period, and reforms are being progressed to turn the forestry industry into a growth industry by promoting the use of wood. Securing reliable supplies of the seedlings needed for reforestation is becoming an integral issue due to the expectation that the use of domestic timber is promoted in tandem with advancing clear-cut logging. In the Group's domestic forestry business, we are aiming to improve productivity by introducing advanced forestry machinery, while at the same time, we are establishing and strengthening the seedling production system and working to realize sustainable forestry

management that is competitive internationally.

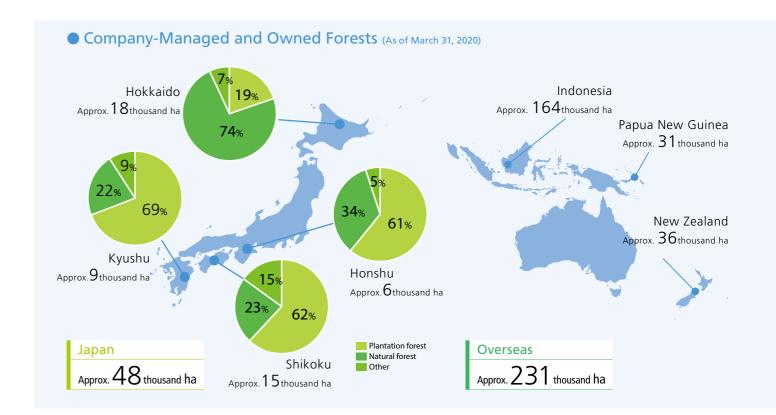
In the overseas forestation business, it is anticipated that the amount of natural wood supplied will be further reduced by global deforestation and the strengthening of logging restrictions in natural forests. In this situation, we will continue to grow stably and over the long term by supplying sustainable high-quality wood from the forests we have planted, while also looking to expand the forest area.

We are also focusing even more on the Renewable Energy Business, which is attracting attention as a way to solve environmental problems, and we are accelerating the effective use of sustainable resources.

# Progress in Fiscal 2019

In the domestic forestry business, we are working to improve the efficiency of forestry management, while in January 2020, we established a seeding center in Minamiaizu, Fukushima Prefecture, our sixth such center nationwide. We also concluded partnership agreements in the forestry and wood industry fields with Nagato, Yamaguchi Prefecture in September 2019 and Nagano Prefecture in December of the same year. In such ways, we are working to progress the forest asset management business for municipalities. In the

overseas forestation business, in our New Zealand forest we are advancing operations to keep down to the greatest possible extent the loss due to the forest fire that occurred in February 2019 and its impact on the future, while we also continue to cooperate with the government and local residents to enhance fire-prevention and fire-fighting structures. In the Renewable Energy Business, we have worked to secure the stable operations of the wood biomass power generation business.



# Domestic Forestry Business Larch seedlings

# Commitment to "sustainable forestry" connecting trees and forests to people

The Group steadily promotes greater efficiency in forest management by deploying high-performance forestry machinery, such as the lumber-gathering tower yarder that facilities safer and more efficient operations in steep forests and harvester that combines the functions of felling, collecting, and lumbering trees in a single machine. It also pursues development of the latest technologies as seen in developments of a forestry assistance suit that reduces work burden and seedling transport drones and test forestation with fastgrowing tree species. The Group has seedling cultivation centers in six locations nationwide as a production infrastructure for cedar, larch, and other seedlings. The centers seek optimization of cultivating conditions and facilitate production throughout the year with production technology that uses a

greenhouse.

The Domestic Forestry Business is a foundation of our business that constitutes the roots of the Sumitomo Forestry Group. Using the expertise and experience we have developed from managing the forests we own, we are working to help revitalize local economies and the domestic forestry sector along with promoting sustainable business in the future. Initiatives include efforts to develop forest-based asset management businesses for the public and private sector.



# Renewable Energy Business Wood Chips for Fuel

# Utilizing construction waste and forestland unused timber as an energy resource

The wood biomass power generation business, which uses chips made from construction waste, forestland unused timber\*, and other materials as fuel, possesses an operational advantage of stable access to fuel leveraging the Group's procurement sources cultivated in the timber and building materials business and has important social significance through effective utilization of timber, curtailment of CO<sub>2</sub> emissions, and contributions to advances in forestry

such as fostering forest environments in regional areas. The Group is promoting renewable energy business suited to local characteristics and conditions by harnessing know-how, networks, and other management resources as well as experience in the wood biomass power generation business and aims to build operations with 300 MW of power generation (confirmed project basis), mainly in wood biomass power generation.

\* Refers to thinned wood and felled timber left in forests without being used because of curving or small diameter. This wood harms the forest environment when it is abandoned and causes disruptions to forest management and forestation efforts.

## **Carbon neutral mechanism**

Wood biomass power generation is premised on a "carbon neutral" concept of not resulting in changes in CO<sub>2</sub> levels. Since CO<sub>2</sub> emitted by combustion of the wood is the CO<sub>2</sub> in air that is absorbed by trees through photosynthesis during the growth process, the power generation does not increase CO<sub>2</sub> in the atmosphere during the tree's lifecycle. This concept of a carbon cycle is known as carbon neutral and curtails increase in CO<sub>2</sub> concentration in the atmosphere.



# Reducing environmental burden and creating sustainable forests

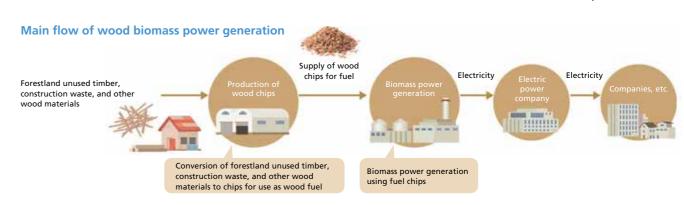
Radiata pine trees planted in New Zealand grow quickly and provide stable supply. With its homogeneity and broad usability, this tree species has price competitiveness. Furthermore, the Group has built an integrated supply chain by utilizing trees obtained from these forests as raw material in production of medium-density fiberboard (MDF) and laminated veneer lumber (LVL) in the country. The supply chain carries out sustainable forest management and industrial material production in harmony with the local society and environment.

In Indonesia, the Group has operated a large-scale forestation business in West Kalimantan since 2010 and gained recognition for its initiative to manage peatland in a way that maintains the business while curtailing

greenhouse gas emissions as "innovative high-quality peatland management." It has also obtained favorable assessment each year for COP presentations for three consecutive years since COP23 in 2017 at the request of the Indonesian government.

In Papua New Guinea, the Group manages forests and operates clinics and markets for local areas that lack sufficient social infrastructure, thereby contributing to improvements in health and living conditions of local people.





# **List of Wood Biomass Power Generation Plants**

	Kawasaki Biomass	Mombetsu Biomass	Tomakomai Biomass	Hachinohe Biomass	Kanda Biomass
Service Areas	Kawasaki City, Kanagawa Prefecture	Mombetsu City, Hokkaido	Tomakomai City, Hokkaido	Hachinohe City, Aomori Prefecture	Kyoto, Fukuoka Prefecture
		A.A.			
Start of operation	February 2011	December 2016	April 2017	April 2018	June 2021 (planned)
The Company's investment ratio	34%	51%	20%	52%	41.5%
Power generation capacity	33 MW	50 MW	6.2 MW	12.4 MW	75 MW
Fuel	Construction waste and others (discarded pallets, pruned branches)	Forestland unused timber and others (palm kernel shells, coal)	Forestland unused timber	Forestland unused timber and others (palm kernel shells)	Imported wood pallets and others (palm kernel shells, forestland unused timber)

Business Outline

# Lifestyle Services Business





Managing Executive Officer
Divisional Manager of Lifestyle Service Divisi
Kunihiko Takaqiri

# Supporting an even more fulfilling life for seniors with rich experience through the warmth of people and wood

In lifestyle services business, the Group handles business in downstream areas that support people's lives and offers a wide range of living-related services, particularly elderly care business.

The aging rate in Japan has continued moving upward, even after it became an ultraaged society in 2010, and reached 28.1%\* in October 2018. Forecasts indicate that it will be above 30% in 2025. Response to the super-aged society, which is rapidly advancing, is one of the most important social issues for Japan.

To address these issues, the Group delivers a variety of services that utilize our know-how in creation of comfortable living spaces cultivated over many years in our housing business, mainly in provision of a reliable and safe living environment for seniors, with the aim of enabling seniors to live vibrant lives without fear, and strives to enhance the quality and quantity of such services.

The Group focuses on creation of new services that contribute to rich lives by operating elderly care facilities and day services that are rooted in local communities.

\*2019 Annual Report on the Aging Society

# Initiatives towards Growth

In elderly case business, the Group continuously pursues "good people, good facilities, and good services" with the aim of maintaining and improving the sociability and health capabilities of customers and lightening care burden on families and strives to raises the occupancy rate and stabilize business operations. It intends to contribute to realization of a society in which people are able to enjoy vibrant healthy lives by supporting the lives of service users and their families and delivering advanced, high-quality service through collaboration with local society.

Besides elderly care business, the Group is participating in the VISON lodging business being developed in Taki (Mie Prefecture) as a new business. This is a project jointly promoted by industry, government, and academia with goals of industrial promotion and job creation utilizing local resources and key words of food, nature, and health. The Group intends to expand business opportunities and contribute to local revitalization by strengthening collaboration with other participant companies and government.

# Sumirin Fill Care

Number of private-pay elderly care facilities operated 16 facilities (As of end of July 2020)

Sumirin Fill Care Co., Ltd. operates 16 private-pay elderly care facilities, mainly in the Greater Tokyo area, under the themes of "the warmth of people and wood" and "elderly care services adopted for changing times." With the introduction of advanced systems that use ICT and the guidance of specialists in that field, the company is actively undertaking initiatives that use the latest technology for elderly care, such as launching the original service "Forest Life" which maintains and improves the living environment and health status of facility users.



Gran Forest Gakugeidaiga



# Elegano Nishinomiya

# Sumirin Care Life

Number of private-pay elderly care facilities operated 3 facilities
Number of elderly residents that combines living support services 1 facility
(As of end of July 2020)

The Group provides living assistance services that address changes in life stages from people capable of living autonomous healthy lives to those who require high-level medical assistance and operates three large-scale paid nursing homes that offer robust support capabilities through collaboration with medical entities and extensive staffing as well as seven stations that provide home care services. In May 2020, it opened Elegano Nishinomiya (Hyogo Prefecture), the largest serviced senior housing facility in Japan with 309 rooms.





\* Starting in the fiscal year ended March 31, 2020, Sumitomo Forestry adopted the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29). For transactions where the Company's role in providing the product to the customer is fulfilled by an agent, instead of the total amount, revenue is now recognized in the net amount.

We also separated the Environment and Resources Business as an independent category from the Other segment in FY3/20. Net sales and recurring profit for FY3/18 and prior years are results based on the category prior to this change.

The Other segment covers elderly care business, insurance agency business related to homes, and various other service businesses. Recurring profit includes equipment-method investment income from Kumagai Gumi Co., Ltd.

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# Research and Development (R&D)

# Promoting the W350 Plan to Changing Cities into Forests

In order to enhance the potential of trees and their added value, it will be absolutely essential to continuously develop technologies. The Tsukuba Research Institute will serve as the driving force behind this effort. Ever since it was established in 1991, the Tsukuba Research Institute has supported the foundations of the Sumitomo Forestry Group. At present, it conducts two main types of R&D activities: (1) Corporate R&D, which seeks to create future technologies over the long term, and (2) Business-related R&D, which aims to boost earnings over the short and medium terms. The Tsukuba Research Institute is pushing ahead with these R&D activities through the seven groups listed to the right.





# W350 Plan

The W350 Plan is the Research Technology Development Concept to be completed by 2041, which will mark the 350th year since the Company's founding. The plan includes construction of a wooden high-rise building and is intended to realize an "Environmentally friendly and timber utilizing cities". We strive to bring about innovation that encourages a sustainable cycle for timber-utilization and forestry management, and realize a vision for Environmentally friendly and timber utilizing cities where people, trees and diverse plant and animal life can coexist with the planet.

The potential of trees is expected to provide important solutions to a host of issues we face. These issues range from the global environment to urban environments, living environments, and the mental and physical wellbeing of every individual. The Tsukuba Research Institute has produced various research achievements. The Group, through its business activities, will return the benefits derived from these R&D achievements to individuals and society as a whole. By doing so, the Group will contribute to the realization of a sustainable and prosperous society.

# Using the new research building at the Tsukuba Research Institute for W350 Plan research

The Group completed construction of a new research building that utilizes many advanced technologies that enhance the value of wood in October 2019 with the aim of strengthening and accelerating R&D. The beams,pillars, and walls use arawashi\*1 exposed timber that has received Ministry of Land, Infrastructure, Transport and Tourism (MLIT) certification based on the full building evacuation safety verification method\*2 and designed using the semi-fireproofing technique. It also deploys various energy-saving technologies and renewable energy facilities to realize a zero-energy building (ZEB). Key points are significant reduction in CO<sub>2</sub> emissions by utilizing roof solar panels and absorption water chiller-heaters fired using wood

pellets, validation tests for greenery technology in the roof, balconies, and exterior walls of medium- and large- scale wooden architectural structures, and assessment of a design that contributes to enhancement of intellectual productivity within office spaces.

The building accommodates up to 140 people as an office building and has been highly rated as a research center with a qualities of wood, including receipt of the 33rd Nikkei New Office Award.

- \*1 This method certifies safety performance for safe evacuation of all people in a building to the ground
- level in a pre-determined fire scenario.

  \*2 This design method decides the cross-section measurements of materials by factoring in the portion of wood burned in a pre-determined fire scenario.
- wood burned in a pre-determined fire scenario.
  \*3 This method exposes pillars, beams, and other structural materials in a wood building.

# Structural characteristics

Wall pillars use a post-tension structure 4 that arranges thick laminated veneer lumber (LVL) in the vertical direction with a checkered pattern and has steel rods in the center. This achieves a space with the warmth of lumber.

\*4 This technology enhances fixation among materials by applying tensile force to highstrength steel rods and wire ropes integrated with materials



# Fireproof verification

This is the first wood building in Japan to obtain Ministry of Land, Infrastructure, Transport and Tourism (MLIT) certification based on the full building evacuation safety verification method. It relaxed interior restrictions to show the wood structure of pillars and beams.



# Environmental features

The building's louver brings sunlight into the first floor's inner courtyard in all four seasons, and natural draft provides effective ventilation using updraft in the stairwell.



# Landscaping plan

The roof, balconies, and exterior walls have greenery layouts that fit the wood building. This site should contribute to R&D on greenery technologies for medium- and large-scale wooden architectural structures.



# Collaboration with Kumagai Gumi

# Aiming to create new markets with innovation

The Group has been promoting collaboration with Kumagai Gumi through eight working groups in five areas since the business and capital alliance started in November 2017. We are undertaking full-fledged initiatives. For instance, K&E (Kumagai Gumi Group) and Sumitomo Forestry Home Tech are engaged in joint pursuit of non-residential renewal and reform business, and we have launched a joint team for design and construction of mid- to large-sized wooden buildings. In greenery and civil projects, the alliance is steadily accumulating results in environmental real estate that utilize Kumagai Gumi's construction technology and Sumitmo Forestry Landscaping's environmental landscaping know-how.

In overseas business, the two Groups established a joint venture in Singapore in January 2020 to jointly develop

real estate in Asia. The first collaborative overseas project is development of a high-rise condominium building and commercial and mixed use complexes with a local company in Jakarta (Indonesia).

The two Groups intend to continue their efforts to create new markets with innovation that transcends their existing frameworks through collaboration.

